

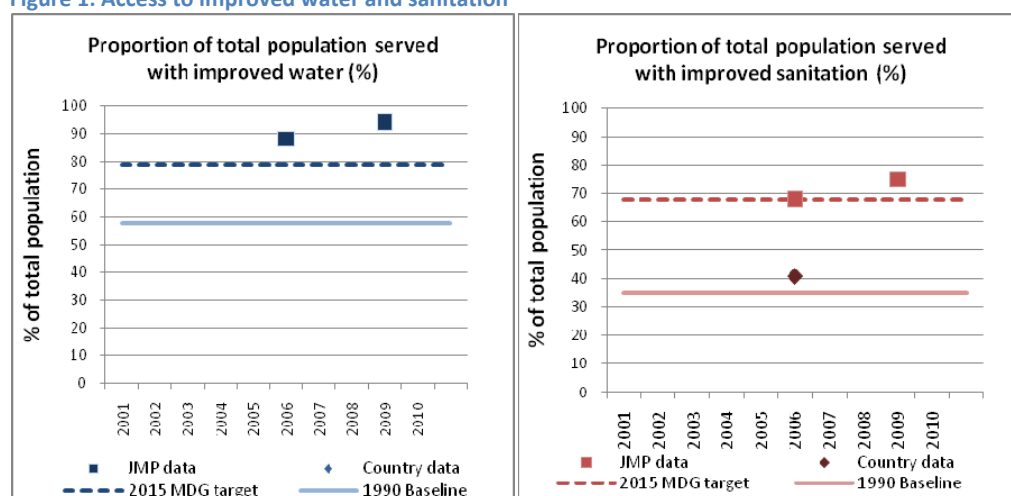
### Headline issues

- Rates of access to improved water and sanitation in Vietnam are better than neighbouring countries, however with 87 million people Vietnam is the thirteenth most populous nation in the world and there remain enormous numbers, particularly the poor, without access.
- Vietnam is experiencing rapid economic and population growth. In this context the challenge is to keep pace with growth, extend WASH coverage and critically to ensure that WASH services are sustainable. This is particularly the case for sanitation, which is lagging behind water coverage.
- The general absence of wastewater treatment and sludge management is a significant gap given population density and the volume of wastewater produced, and this represents a severe environmental and public health hazard.
- Further challenges are presented by climate change and threats to water resources. Vietnam has been identified as one of five countries globally most vulnerable to sea-level rise. Freshwater availability is threatened by increasingly problematic water quality, compounded by significant seasonal variability.
- Recent years have seen promising developments in institutional arrangements. Implementation of central policies, sector coordination and sustaining services will be important over coming years. Central control can sometimes inhibit the institution of locally appropriate solutions, and similarly gaps in financial and human capacity of local service providers are barriers to sustainable services.

### Coverage and WASH related health statistics

Access data varies according to source and definition, and there is some uncertainty about actual WASH coverage in Vietnam. According to WHO/UNICEF Joint Monitoring Programme (JMP) 2008 data,<sup>1</sup> Vietnam has already achieved MDG targets for both water and sanitation (Figure 1). JMP reports access to water as 99% in urban and 92% in rural areas, and sanitation access as 94% for urban centres and 66% in rural areas.<sup>1</sup> Based on these figures, WASH coverage is comparably better in Vietnam than in neighbouring countries. However there are indications JMP data may overstate access.<sup>2</sup>

Figure 1: Access to improved water and sanitation



Source: WHO/UNICEF Joint Monitoring Program (JMP) (2010) data for 2008.<sup>1</sup> Country data for sanitation from the 2005 Population and AIDS Indicator Survey<sup>3</sup> assuming 'traditional pit' and 'no facility' are unimproved sanitation facilities according to JMP definitions. Country data for access to water not shown due to difficulties matching Population and AIDS Indicator Survey classifications with JMP improved and unimproved categories.

Data from the Vietnam General Statistical Office 2005 Population and AIDS Indicators (PIA) Survey identified that 42.8% of the total population use traditional pit latrines, with 16.3% having ‘no facility’ or practicing open defecation.<sup>3</sup> Categories for water access in the PIA are difficult to match to JMP definitions, making direct comparison difficult.

Based on local standards set by the Ministry of Health (MoH), the situation is worse. In rural areas, only 42% of the population had access to water meeting MoH quality standards in 2010,<sup>4</sup> with 60% accessing MoH defined hygienic sanitation<sup>4</sup> and an estimated third of these improperly used or maintained.<sup>4</sup> Based on the same MoH standards, the UN MDG update for Vietnam 2010 reports that only 18% of rural households, 12% of rural schools and 37% of commune health stations have hygienic latrines.<sup>5</sup> More recent data from the Ministry for Agriculture and Rural Development (MARD) (updated August 2011) cites rural access to water at 75% and access to sanitation at 52%,<sup>6</sup> demonstrating on-going inconsistencies and variability in coverage data.<sup>7</sup> Figures from various sources are summarised below in Table 1.

**Table 1 Access according to different data sources – proportion of population with access to improved water and sanitation**

Data source		Vietnam General Statistical Office Population and AIDS Indicator Survey <sup>3</sup>	WHO/UNICEF JMP <sup>1</sup>	Vietnam National Target Program – access based on Ministry of Health standards <sup>4</sup>	Vietnam Ministry of Agriculture and Rural Development <sup>6</sup>
Year		2005	2008	2010	2011
Water	Urban		99%		
	Rural		92%	42%	75%
Sanitation	Urban		94%		
	Rural	41%	66%	60%	52%

Relative access figures can obscure the scale of need. Home to more than 87 million people,<sup>1</sup> Vietnam is the 13<sup>th</sup> most populous nation in the world.<sup>8</sup> The population without access to improved water is more than 5 million (on par with Cambodia and significantly more than Lao PDR), and more than 22 million are without access to improved sanitation (roughly double the need in Cambodia and several times the population without access in Lao PDR).<sup>1</sup>

Furthermore, coverage is not equitable, and is affected by income level, ethnicity and region. In 2005 in rural areas only 22% of the poorest quintile had access to clean water, compared with 78% for the richest quintile.<sup>8</sup> Similarly for sanitation, only 2% of the poorest quintile had access compared with 20% for the richest.<sup>8</sup> Regionally, the lowest level of access is in the northern mountainous regions, the Mekong Delta and in the central highlands.<sup>5</sup> The north and the central highlands are home to the largest populations of ethnic minority households, where access is lowest and poverty is high.<sup>29</sup> A further inequity is that JMP data indicates better coverage in urban areas compared with rural, and thus support for increased access to water and sanitation needs to acknowledge the significant need in rural areas where more than 70% of the population live.<sup>1</sup>

Cities in Vietnam are growing rapidly, with fast paced urban development occurring often without adequate planning for basic services.<sup>9</sup> According to UN-HABITAT estimates in 2005, 41% of the Vietnamese urban population (more than 9 million people) were living in slums,<sup>10</sup> and the needs of these unserved communities are likely not reflected in official coverage estimates.

Beyond the household level, low levels of wastewater treatment in both urban and rural areas present a significant and growing challenge. A recent USAID study estimates that only 4% of sewage in Vietnam is

treated.<sup>11</sup> Most households in urban areas rely on onsite pre-treatment by septic tank of varying standards, after which water is discharged direct to waterways.<sup>11</sup> Less than 4% of septage is treated, with sludge often illegally dumped into canals and waterways.<sup>11</sup> Only 60% of hospitals have wastewater treatment plants, of which 18% are properly operated, and wastewater from hospitals and industrial sites is typically discharged directly to public systems.<sup>8</sup> As a result of pollution and over-extraction, the quality of both surface and groundwater is a concern.<sup>8</sup>

WASH-related health statistics for Vietnam are shown below in Table 2. Infant mortality and WASH-related Disability-Adjusted Life Year (DALY) rates are comparatively better than neighbouring countries. Government documentation indicates that the rate of infant mortality (for children under one year) has decreased during the past decade, however overall WASH related diseases have increased and an estimated 90% of populations in particular rural areas have intestinal worms.<sup>12</sup> According to Government of Vietnam (GoV) figures, fewer than 15% of the rural population practice handwashing and only 5% of rural schools have soap available at handwashing stations.<sup>12</sup> The WSP Economics of Sanitation Initiative (ESI) has identified the overall economic impacts of poor sanitation in Vietnam to be \$US780M per year, with health and water resource impacts are the most significant proportion of these costs, at \$US260M (a third) of total losses,<sup>13</sup> indicating strong need for priority and investment to be given to sanitation.

**Table 2: Summary health statistics**

Infant mortality (deaths per 1000 births) <sup>14</sup>	24
WASH-related DALYs (% of all DALYs) <sup>15</sup>	6%
Total WASH related DALYs (Years) <sup>15</sup>	765,738
Total WASH related deaths per year <sup>16</sup>	14,531
WASH related proportion of deaths (%) <sup>16</sup>	3%

Sources: World Bank and WHO as shown in endnotes

## Finance trends

There is a lack of finance to improve WASH coverage in both rural and urban areas, with investment needs in 2005 figures estimated to be \$US600M annually to achieve water and sanitation Vietnam Development Goals (VDGs) for 2020.<sup>2</sup> This represents approximately four times average annual expenditure for the preceding 10 years.<sup>2</sup> This analysis is supported by the GLAAS assessment of adequacy of funding. Survey respondents estimated the adequacy of funding as ‘less than 50% of needs’ for urban water, urban sanitation and rural sanitation, and ‘between 50% and 75% of needs’ for rural water.<sup>17</sup>

To date, funding of major infrastructure projects has been beyond the capacity of government agencies.<sup>8</sup> Official Development Assistance has been a significant source of finance, though this has been strongly focused on water rather than sanitation.<sup>2,11</sup> As Vietnam transitions to middle income country status the nature of donor investment is shifting, with some European donors likely to withdraw before 2015,<sup>18</sup> so funds from ODA may be less available or structured differently in the future.

Many urban water and sanitation utilities are subject to the GoV policy of equitisation,<sup>2</sup> and recent legislation advocates greater cost recovery to cover operation and maintenance of facilities (as described below). However tariffs set by Provincial People’s Committees (PPCs) have to date been too low to ensure sufficient funds are available for ongoing asset management, and this means water and sanitation companies are dependent on finance from the government budget and subject to bureaucratic processes.<sup>8</sup>

In rural areas, finance requirements and investment plans are defined in the 'National Rural Clean Water Supply and Sanitation Strategy to Year 2020' and the National Target Program for Rural Water Supply and Sanitation Phase 3 (NTP3) 2011-2015. NTP3 has a proposed budget of \$US2.2 billion,<sup>19</sup> of which donor contributions are roughly one-sixth, though the actual budget is expected to be lower when GoV formally approves the program in August 2011.<sup>20</sup> The National Target Program is supported by donors including AusAID, Danida, DFID, UNICEF and a number of NGOs also participate.<sup>4</sup>

Challenges for effective financing identified in the 'National Rural Clean Water Supply and Sanitation Strategy to Year 2020' include: overemphasis on investment in construction for water supplies with inadequate funding for activities such as hygiene behaviour change; delays in annual budget allocations and allocations that do not meet required funds; weak private sector investment; no budget for wastewater treatment.<sup>12</sup>

GoV is seeking increased investment from the private sector in both urban and rural WASH. Numerous small scale enterprises are engaged in WASH, particularly in water supply,<sup>21,22</sup> however more significant private investment has been limited.<sup>23</sup>

## Sector governance

At the national level, a number of ministries play a role in the WASH sector. The Ministry of Agriculture and Rural Development (MARD) oversees all rural initiatives, with the Ministry of Health (MoH) playing a lead role in rural sanitation.<sup>12</sup> Urban infrastructure is the responsibility of the Ministry of Construction (MoC).<sup>24</sup> Other agencies involved include the Ministries of Planning and Investment (MPI) and Finance (MoF) which approve annual plans, administer the state budget and coordinate donor funded projects.<sup>12</sup> The Ministry of Environment and Natural Resources (MoNRE) is responsible for water resource management, environmental management and climate change.<sup>12</sup> The Ministry of Education and Training (MoET) oversees school based WASH activities, and the Ministry of Science and Technology (MoST) is tasked to coordinate research and development for WASH technologies.<sup>12</sup>

At the sub-national level, provincial departments take on activities as defined by their corresponding national ministries including local master planning, in collaboration with and under the authority of the Provincial People's Committee (PPC). Locally, mass organisations including the Women's Union undertake mobilisation activities and coordinate community involvement in the financing, construction and management of facilities, particularly in rural areas.<sup>12</sup> Vietnam Bank for Social Policies (VBSP) is also a major player, providing subsidised loans for sanitation and non-subsidised loans for water in rural areas.<sup>25</sup>

The sector has undergone significant reform since *doi moi* economic renovation in 1986 and more recently with decentralisation.<sup>26</sup> Central agencies are now responsible for policy making, sector monitoring and coordination, with local governments delivering services and owning and managing assets.<sup>24</sup> This has created challenges for effective and sustainable service delivery, particularly with so many ministries taking responsibility for different aspects of WASH governance. The GLAAS assessment of overall perceptions of the sector rates Vietnam poorly (5/10) for implementation and coordination of national policies and institutions and human resources, and only marginally better (6/10) for planning, monitoring and evaluation and financial planning and resources.<sup>17</sup>

## Subsector governance

### Urban sanitation

The Ministry of Construction (MoC) is the lead agency for both urban sanitation and water supply with the Ministries of Planning and Investment (MPI) and Finance (MoF) playing roles in coordinating investment, including managing the significant contribution of ODA to the urban subsectors.<sup>24,27</sup> Decentralisation has shifted the role of central agencies, and national level Ministries now focus on policy development and oversight of implementation rather than detailed control of operations.<sup>24</sup> Provincial departments are responsible for implementing national directives and undertaking detailed city-level masterplanning, under the direction and authority of Provincial People's Committees (PPCs).<sup>9</sup>

Compared with urban water supply, institutional arrangements for urban sanitation are diverse and lack clarity in terms of roles and responsibilities.<sup>24</sup> While PPCs have ultimate responsibility, services in larger towns and cities are variously provided by combined water supply and drainage companies, PPC departments or urban environmental companies (URENCOs) operating as state owned enterprises.<sup>24</sup> Given significant institutional reforms, rapid urban development and decentralisation, service providers have suffered from lack of financial resources and human resource capacity.<sup>2,24</sup>

A number of recent legislative developments are providing overall direction for the urban sanitation subsector. Features of recent legislation include: a target that 45% of sewerage is collected and treated by 2020 (Prime Ministerial Decree 758 on urban upgrading); a requirement for separate household wastewater and stormwater systems; a shift to user pays cost recovery for sanitation service delivery; a requirement to consider both centralised and decentralised systems when selecting sanitation technologies; and the establishment of strict standards for domestic wastewater quality.<sup>9</sup> These developments are described in Decree 88 and Decision 1930 on drainage and sewerage for urban and industrial zones, and QCVN 14 national technical regulation on domestic wastewater.<sup>9</sup>

Institutional reforms guided by Decree 88 and Decision 1930 aim to overcome challenges faced by the urban sanitation sector. To date, wastewater management or 'environmental protection' tariffs have been returned to PPCs rather than service providers,<sup>24</sup> there have been no consistent regulations to guide management of assets over time,<sup>24</sup> and urban service providers have had to apply each year for an operating budget to manage and maintain networks.<sup>9</sup>

Wastewater treatment facilities are completed or under construction in a number of large cities including Hanoi, Ho Chi Minh City, Haiphong, Danang and Halong, however most cities (and significant populations in larger cities) remain without secondary sewerage treatment.<sup>2</sup> Household blackwater treatment with septic tank remains the norm in Vietnam, though construction standards are questionable and septic tanks are typically cemented beneath households and rarely de-sludged.<sup>9</sup> Greywater is discharged direct to waterways.<sup>9</sup> As a result pollution of waterways and groundwater sources is a serious problem, particularly considering that groundwater is the source of drinking water for many poorer communities.<sup>2</sup>

### Urban water

Institutional arrangements for urban water supply are similar to urban sanitation, with MoC playing the lead role in policy development, coordination and oversight. PPCs have ultimate responsibility and authority at the provincial level, with services typically provided by water supply and drainage companies.<sup>24</sup> City level water companies are typically legally distinct independent state owned enterprises with commercial functions, though in practice they have very limited autonomy and are subject to the authority of PPCs.<sup>24</sup>

Water companies are subject to the national policy of equitisation, and in recent years at least four have been equitised and are no longer state owned.<sup>2</sup>

As with sanitation, there is a shift to cost recovery through user tariffs for urban water supply. Water supply has historically been heavily subsidised and urban water tariffs (set by the PPC) have not covered costs,<sup>8</sup> however the central government is supporting increasing charges and providing guidance to local authorities in updating tariff schedules<sup>2</sup> guided by the National Orientation Plan to 2020, the joint MoF/MoC circular of 2004 and Decree 117 on clean water production.<sup>24</sup> Tariff collection rates in Vietnam are high, and increased charges are expected to provide a sound basis for operation and maintenance as well as future investment.<sup>2</sup>

Challenges in the urban water sector remain. There are high rates of non-revenue water with estimates ranging from 35%<sup>2</sup> to 43%.<sup>24</sup> There is a need to improve service delivery in smaller urban centres including fast growing district towns, with an estimated 200 of 600 towns having piped supplies and service providers struggling to access sufficient financial and human resources.<sup>2</sup> Water treatment plants are often poorly utilised and there is significant variation across the country in the unit costs of urban service delivery, indicating scope for improved efficiency.<sup>2</sup>

The private sector plays a role in urban service delivery through operating contracts,<sup>2</sup> supplying household piped water at precinct scale in areas adjacent to those serviced by state-owned companies.<sup>28</sup> Water treatment facilities in Hanoi and Ho Chi Minh City are being constructed through build-operate-transfer arrangements, and in Ho Chi Minh City a public-private partnership has been established to reduce leakage.<sup>2</sup>

### Rural sanitation

Overall directions in both rural sanitation and water supply are guided by the 'National Rural Clean Water Supply and Sanitation Strategy to Year 2020'.<sup>12</sup> This Strategy was updated in 2010 to reflect institutional changes and clarify strategic directions including an emphasis on accelerating coverage for poor and marginalised groups and on financial and operational sustainability.<sup>12</sup> A number of 'strategic solutions' are described, including: use of Information-Education-Communication strategies to promote hygiene behaviour change; organisational, management and human resource development strengthening; and research and development to promote the application of appropriate technologies.<sup>12</sup>

As described by the strategy, the Ministry of Health (MoH) is the lead agency for household sanitation, responsible for promoting household latrine coverage; hygiene behaviour change activities; setting water quality and excreta reuse standards; and monitoring water quality as well as sanitation facilities.<sup>12</sup> Within MoH, the Centre for Preventive Medicine (CPM) takes lead responsibility for rural sanitation whilst IEC is responsible for behaviour change communication.<sup>29</sup> The Ministry of Education and Training (MoET) is tasked with latrine construction in schools and integrating hygiene education into curriculum.<sup>12</sup> More generally, ultimate responsibility for rural sanitation as well as water supply lies with the Ministry of Agriculture and Rural Development (MARD).

Rural sanitation, along with water supply, has been given national priority status by GoV, with the sector being one of several with a national target program. The National Target Program (NTP) for Rural Water Supply and Sanitation started in 2000,<sup>20</sup> and is about to commence its third phase with NTP3 covering the period 2011-2015 and is focused in remote, poor, polluted and challenging rural areas. NTP3 builds on lessons from the first two phases of the program, including an identified need for increased attention to sanitation and hygiene as compared with water supply.<sup>4</sup> Challenges identified in the NTP3 design document include: reliance on subsidies; limited toilet options for households to choose from within the 4 MoH



standards; insufficient guidance for households on toilet construction and use; and insufficient funding for hygiene promotion and behaviour change initiatives.<sup>4</sup> NTP3 aims to address some of these concerns. While the household remains ultimately responsible for sanitation, compared with NTP2 more guidance is provided on the technical and financial options for householders, including articulation of support to be provided by various agencies and groups including mass organisations such as the Women's Union.<sup>4</sup>

In sanitation, the use of subsidies - either through direct material, financial support or through subsidising loans - is a strong feature although there is no data available on their effectiveness in targeting the poorest households or in monitoring latrine usage. Subsidies are provided through a range of sources, the main ones being NTP, Program 135 managed by the Committee for Ethnic Minority Affairs (CEMA), and subsidised loans from Vietnam Bank for Social Policies (VBSP).<sup>29</sup> They are each administered differently which can result in challenges in coordinating a sectoral approach and difficulties in implementation at the village and commune level. The non-government organisation SNV on the request of the government introduced Community-Led Total Sanitation (CLTS) to Vietnam in 2008 as part of NTP2 as an effective means to mobilise communities and build sanitation demand without subsidy.<sup>21</sup> This approach has attracted interest from MoH with a view to its replication in NTP3.<sup>21</sup> SNV and IDE have also led work in sanitation marketing and supply chains towards developing private sector engagement in sanitation.<sup>26</sup> Use of CLTS in Vietnam has highlighted the need for smarter and better targeting of subsidies, since CLTS demonstrates that large-scale empowerment and motivation to build and use latrines is possible and could assist Vietnam to meet its sanitation targets, but can be undermined if subsidies are not provided in a considered, well-timed manner.<sup>23</sup>

### Rural water

As with sanitation, the rural water subsector is guided by the 'National Rural Clean Water Supply and Sanitation Strategy to Year 2020' and the National Target Program for Rural Water Supply and Sanitation. MARD is the lead agency for rural water through the Water Resources Directorate. A standing office for NTP3 (and its previous phases) sits within the Water Resources Directorate, with responsibility for overall coordination of NTP.<sup>12</sup> The National Centre for Rural Water Supply and Environmental Sanitation (NCERWASS) within MARD has specific responsibility for providing technical support for NTP3 including water quality monitoring, data collection and overall monitoring and evaluation. .<sup>12</sup>

The private sector plays a significant role in urban areas, and recent study revealing a smaller but important role in rural water supply, with small scale providers estimated to account for more than 30% of overall water services in 2005.<sup>30</sup> Organisations active in the rural market are typically micro and small enterprise, and range from individual operators providing specific services through to small scale utility-style companies providing piped water.<sup>21,22</sup> The non-governmental organisation East Meets West Foundation (EMWF) has demonstrated an innovative output-based aid approach to encourage private enterprise development in providing rural water services in the Mekong and Central provinces.<sup>23</sup>

Sustainability of water facilities in rural areas is a concern in Vietnam, with unclear institutional arrangements for ongoing operation and maintenance of the many systems being constructed.<sup>2</sup> Given high population density, community management is unlikely to provide the best solution<sup>2</sup> and arrangements for local authorities to finance and provide the requisite technical expertise are needed. Figures for functionality of rural water supply systems were sought for this review but were not found in the timeframe.

## Health and hygiene

The MoH is the lead agency for health and hygiene promotion, including housing a sub-standing office for NTP3 (complementing the standing office within MARD). Hygiene features strongly in the National Target Program for Rural Water Supply and Sanitation Phase 3 (NTP3) which sets the target that by 2015 80% of the population will have access to information about household sanitation and will understand the need for handwashing with soap before preparing and eating food, after defecating and after handling infant faeces.<sup>4</sup> The 'National Rural Clean Water Supply and Sanitation Strategy to Year 2020' 2010 update describes lessons learnt during 10 years of implementing the strategy including a need for Information-Education-Communications (IEC) that prompts actual behaviour change (moving beyond awareness and understanding).<sup>12</sup> A national IEC strategy exists and is currently being redrafted.<sup>7</sup>

A National Handwashing Initiative (NHI) has been in place since 2006, coordinated by MoH and the Vietnamese Women's Union with technical support from the World Bank Water and Sanitation Program (WSP).<sup>31</sup> The NHI makes use of mass media and community level marketing through health workers and the Women's Union to promote handwashing with soap, particularly targeting women and children. The campaign has reached 600 communes to date.<sup>31</sup> Objectives of the NHI are to: make handwashing with soap a habit among millions of mothers and children; monitor and evaluate initiatives to learn from and adapt program planning and management; establish a sustainable program that will continue and expand after the five-year grant ends; and document and disseminate the learning from designing, implementing, and evaluating a large scale behaviour change program.<sup>31</sup>

## Climate change and water resources

Table 3 summarises climate and water resource indicators for Vietnam. Despite an apparent abundance of water, particularly in delta areas, with 10ML/person/year Vietnam ranks worse than neighbouring countries in terms of available renewable freshwater. Water availability concerns are compounded by significant seasonal variability and increasingly problematic water quality, particularly in light of poor wastewater treatment. Challenges identified by a recent ADB review of Vietnamese water resources include: population growth; economic growth; competing water uses; dependence on international rivers; seasonal and basin variability in surface water availability; over-extraction of groundwater; inadequate water storage; poor surface water quality; threatened ecosystems; risks of natural disasters and climate change.<sup>8</sup>

Climate change also poses a significant and increasing threat to the Vietnamese WASH sector in terms of health, weather disasters, habitat loss and economic stress, with the country scoring a 'high' and 'acute' vulnerability rating for 2010 and 2030 respectively. Recent UNDP and World Bank reports identify Vietnam as one of the five countries most vulnerable to sea-level rise, with a 1m rise in sea levels resulting in Vietnam losing 5% of its land, 7% of agricultural production and 10% of GDP, with 11% of the population seriously affected and more than 38% of the Mekong Delta flooded.<sup>8</sup>

**Table 3 Summary status of water resources and vulnerability**

Renewable water (ML/population) <sup>32</sup>	10
Overall Climate Vulnerability factor 2010 <sup>33</sup> (on scale of <i>Acute, Severe, High, Moderate, Low</i> )	High
Overall Climate Vulnerability Factor 2030 <sup>33</sup> (on scale of <i>Acute, Severe, High, Moderate, Low</i> )	Acute
Environmental Vulnerability Status <sup>34</sup> (on scale of <i>Extremely vulnerable, Highly vulnerable, Vulnerable, At risk, Resilient</i> )	Highly Vulnerable



## Donor environment

ODA has formed a significant part of WASH funding in recent years. Donors active in the sector include AusAID, Danida, DFID, JICA, FINIDA, World Bank, ADB, UNICEF and a number of international NGOs including Plan, SNV, East Meets West, World Vision and International Development Enterprises. The donor landscape is shifting given Vietnam's transition to middle income status,<sup>18</sup> however as is clear from this brief, there remain significant challenges to overcome in the sector.

AusAID, along with Danida and DFID, have provided direct budget support to the rural National Target Program (through phase 2 and now into phase 3).<sup>20</sup> Other bilateral donors supporting NTP2 (and likely to continue during NTP3) include Japan and Finland, with the World Bank, ADB, UNICEF, with NGOs providing assistance for particular program components.<sup>20</sup> Donor contributions amount to an estimated 19.5% of the total proposed NTP3 budget.<sup>20</sup>

Overall coordination of donor activities is provided by the Ministry of Planning and Investment (MPI), with the Ministries of Construction and Agriculture and Rural Development overseeing ODA support to multi-city urban programs and national rural programs respectively.<sup>12,24</sup> Within the rural NTP, a dedicated Rural Water Supply and Sanitation Partnership (RWSSP) provides a key focal point for coordination and alignment efforts between multiple actors.<sup>12,20</sup>

ADB has supported a number of programs in the urban sector since 1993, including seven loans to the value of \$US427M and five technical assistance projects worth a total of \$US3M.<sup>24</sup> ADB support is set to continue, with recently announced programs to the value of \$US1 billion for urban water management and \$US1M for urban sanitation (including solid waste management).<sup>35</sup>

The VUFO-NGO Resource Centre acts as a point of coordination for INGO activities, with a dedicated water and sanitation working group that meets monthly. NGOs active in the sector and contributing innovative approaches include SNV, Plan International, East Meets West Foundation and IDE.

## Sector monitoring

In the rural sector, the National Target Program guides monitoring and reporting initiatives. A suite of indicators was established in 2008 with the intention to collate and manage information in comprehensive database.<sup>4</sup> More recently, a national Monitoring and Evaluation system was launched and is in the first phase of roll-out in selected provinces.<sup>25</sup> The NTP phase 3 design notes that monitoring has been a weakness of the program to date, with agencies poorly implementing their monitoring and evaluation functions and the result that local level issues have been delayed.<sup>4</sup> It is expected that the new system will improve monitoring and data consolidation.<sup>25</sup>

Urban utilities provide data to the Southeast Asian Water Utilities Network (SEAWUN), as part of its regional utility benchmarking program. Further information about current and planned monitoring of the urban subsector was not available for this brief.

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<sup>13</sup> Thang P, Tuan H, Hutton G. (2008) *Economic impacts of sanitation in Vietnam*, World Bank, Water and Sanitation Program. 2008.

<sup>14</sup> The probability per 1,000 that a newborn baby will die before reaching age five (2009). Source: World Bank Open Data from the Inter-agency Group for Child Mortality Estimation.

<sup>15</sup> Disability-adjusted life year (DALY) measures the years of life lost to premature mortality and the years lost to disability. Source: 2004 update of the Table 1 and Annex of the publication 'Safer water, better health', by Prüss-Ustün et al, WHO, Geneva, 2008. Accessed 28 June 2011. Available at [http://www.who.int/quantifying\\_ehimpacts/publications/saferwater/en/index.html](http://www.who.int/quantifying_ehimpacts/publications/saferwater/en/index.html).

<sup>16</sup> Source: 2004 update of the Table 1 and Annex of the publication 'Safer water, better health', by Prüss-Ustün et al., WHO, Geneva, 2008 as above.

<sup>17</sup> GLAAS 2010 The UN-Water Global Annual Assessment of Sanitation and Drinking-Water (GLAAS)

([http://www.who.int/water\\_sanitation\\_health/publications/9789241599351/en/index.html](http://www.who.int/water_sanitation_health/publications/9789241599351/en/index.html))

<sup>18</sup> AusAID (2010) *Australia's Strategic Approach to Aid in Vietnam 2010-2015*, December 2010, available at

<http://www.ausaid.gov.au/publications/pdf/strat-approach-vietnam-2010-15.pdf>.

<sup>19</sup> Converted from VND 45.5 trillion at a rate of US\$1 = VND 0.00005, July 2011.

<sup>20</sup> Governments of Australia, Denmark and United Kingdom (2011) *Appraisal Report Final. Support to Vietnam's National Target Programme for Rural Water Supply and Sanitation, Phase III 2011-2015*, April 2011.

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- <sup>33</sup> Source: Climate Vulnerability Monitor 2010 <http://daraint.org/climate-vulnerability-monitor/climate-vulnerability-monitor-2010>. Countries are classified according to: *ACUTE+*, *ACUTE*, *ACUTE-*, *SEVERE+*, *SEVERE*, *SEVERE-*, *HIGH+*, *HIGH*, *HIGH-*, *MODERATE*, *LOW*. For information on included datasets and methodology for aggregation and categorising, see [http://daraint.org/wp-content/uploads/2010/12/CVM\\_Methodology.pdf](http://daraint.org/wp-content/uploads/2010/12/CVM_Methodology.pdf).
- <sup>34</sup> Source: Environmental Vulnerability Index 2004 developed by SOPAC, UNEP and partners <http://www.vulnerabilityindex.net/>. Countries are classified according to: *Extremely vulnerable*, *Highly vulnerable*, *Vulnerable*, *At risk*, *Resilient*.
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