ABDULLAH BIN HAMAD AL-ATTIYAH INTERNATIONAL FOUNDATION
FOR ENERGY AND SUSTAINABLE DEVELOPMENT

Issue 01: September 2018

Al-Attiyah Foundation Monthly Sustainability Digest

Expert sustainability opinion and insight

The True Cost of Water:

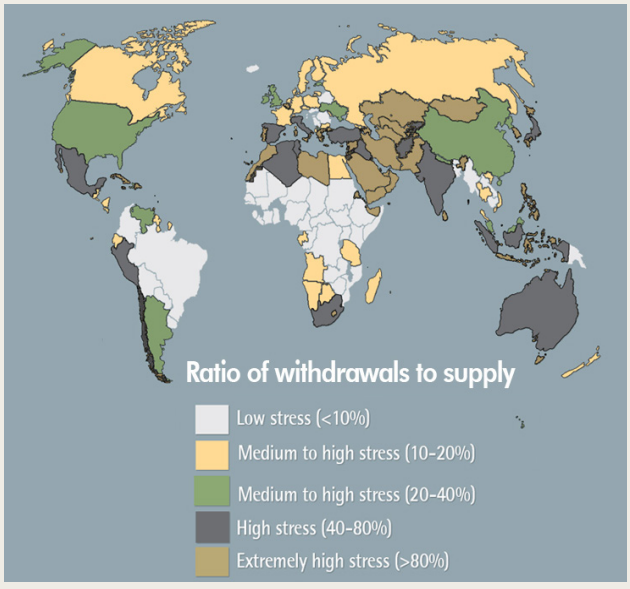
What will it cost nations to provide sustainable water and sanitation for all its citizens?

The UN Sustainable Development Goal 6 (SDG 6) aims to "ensure availability and sustainable management of water and sanitation for all". Meeting the targets of SDG6 will require large investments in terms of finance and resources. By the year 2050, the UN estimates that 1 in 4 people will be affected by recurring water shortages. With an estimated population of 9.7 billion in 2050, there will be close to 2.5 billion people facing acute water shortages and without access to hygienic sanitation. The World Bank has estimated that globally, current levels of financing for Water, Sanitation and Hygiene (WASH) are only sufficient to cover the capital costs of achieving basic services by 2030.

Meeting SDG6 will require a tripling of capital investments to US$ 114 billion per year, not to mention operations and maintenance (O&M) costs, which are key for sustainable services. Governments are challenged to find the financial solutions to meet the SDG6 goal, which mechanisms to use and how to increase financial efficiency in infrastructure development and viable approaches to tariff-setting. What is the expected total required expenditure and where are nations planning to source the financing? What appropriate strategies would help governments balance the competing needs within their national developmental agendas?

Key Messages

- National strategies to ensure availability and sustainable management of water and sanitation are now widespread as more countries prosper.
- To meet SDG6 targets, countries are developing and implementing national financial plans and prudent budgeting.
- Trends in national budget allocations indicate general increases in funding but estimates suggest these still fall short of required investment.
- The sources of financing for drinking-water and sanitation services differ from country to country with the household tariffs and fees being universally prominent.
- Despite the enormity of the challenges faced in the global effort to provide WASH services, the trends of technology innovations, financing and governance indicate that these challenges can be overcome.



How are Nations Planning to Reach the SDG6 Goal?

Economic development is crucial to improve standards of living, but this needs to happen sustainably. As more countries prosper, the current rate of development puts large population groups at severe risk. Lack of access to clean water can, by itself, halt progress and growth, hindering communities' prosperity. United Nation's Sustainable Development Goals 6 (SDG6), presents an ambitious yet achievable strategy to guarantee clean water and sanitation to everyone by 2030. In its plan, SDG6 is global, but its implementation is local. Governments are encouraged to find customisable sustainable strategies for their community's problems and hence contribute to the overall SDG6 goal. Below we explore, as examples the strategies some countries are implementing to reach the SDG6 goal:

India

Currently, India is one of the most vulnerable developing countries and faces acute water shortages. Depleting rivers, lakes and underground water, jeopardise the lives of 1.1 billion people. Ensuring water security and good sanitation for its citizens is critical, as India pushes towards development.

India's mission to attain SDG6 includes programs like the 'Clean India Initiative', which aims at cleaning the urban and rural infrastructure by building 90 million toilets for rural India by 2019 to eliminate open-defecation. Already, better waste management systems have been set up to prevent untreated and hazardous chemicals from polluting water resources. The government is also expanding its clean water distribution program and currently, 76% of Indian inhabitants have full access to it.

European Union

The European Union (EU) is way ahead of the rest of the world in guaranteeing its residents sanitation and clean drinking water. Only 2% of the population lack clean sanitation facilities, a problem restricted to only a few of its member nations. However, water quality is still a primary concern. The EU plans to half its untreated wastewater and reduce the number of dangerous contaminants entering water bodies. To protect the environmental well-being, all settlements with more than 2000 residents are obligated to collect and treat their waste-water discharge.

Under the Water Framework Directive, water bodies are required to have a good ecological chemical status. Environmentally sustainable agricultural practices are being encouraged to lower the nitrate levels in ground-water. Water used for bathing is also required to meet a specified quality standard.

Peru

Peru's National Water Authority, with help from the UN and the World Health Organisation (WHO) launched a monitoring framework to achieve SDG 6. The goal of this plan is to collect, monitor and improve key indicators that contribute towards regional and global sustainability goals. 66% of Peruvians live in slums, where water utilities are inadequate and do not provide citizens with clean drinking water. Piped water access to slums has increased over the years, but with water scarcity and low water quality, work has been undertaken to improve clean water supply. Water utilization efficiency is being encouraged in both the government and private sector.

Australia

For the world's driest continent, Australia has managed its water resources extremely well. But, with climate change, droughts and variable rainfall, the continent's water security faces an uncertain future.

In 2017, the Australian government began conducting an inquiry to reform its water supply and distribution. The inquiry involves measuring the impact of businesses on water resources and local communities. Businesses are asked to use water responsibly and minimise pollution of the water bodies. An accounting method is being designed to determine the economic value of water, which will be used in strategizing water and sanitation infrastructure.

South East Asia

For nations in South-East Asia, the lack of finance to advance policies that meet SDG6 is a huge obstacle. Some finance exists, but funding water and sanitation projects is proving to be incredibly difficult. Like Africa, the lack of data to evaluate project feasibility, progress and benefits, hinder project implementation.

To overcome this issue, regional governments, with help from Global Analysis and Assessment of Sanitation and Drinking-Water (a department of the WHO), are testing innovative methods for financing, implementation and data-collection procedures. Combined with WHO the Asian Development Bank (ADB) provides support to countries dependent on assistance to build clean water and sanitation infrastructures and they are using more accurate regional data to make a stronger argument for funding.

Where Does the Funding Come From?

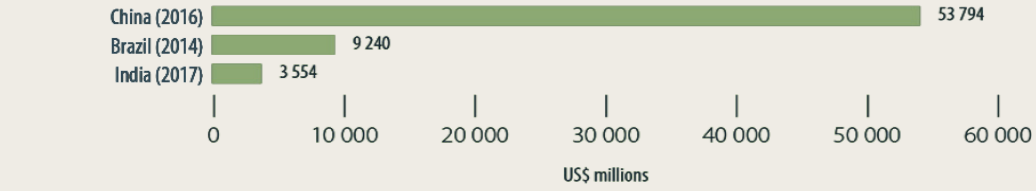
Over two thirds of countries surveyed by the Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) indicate the existence of a financing plan and budget for drinking-water and sanitation. However, only one third of countries reported that a financial plan has been defined, agreed, and consistently followed.

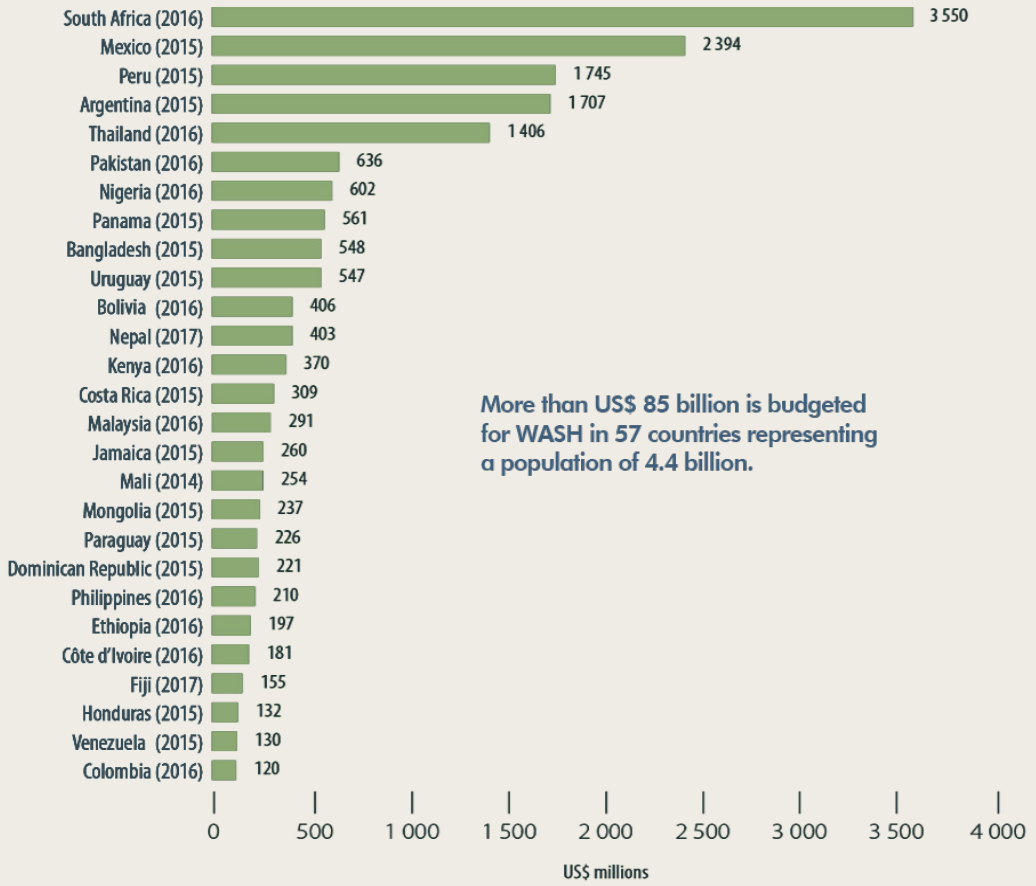
Countries reported the use of a range of WASH investment programmes/budget frameworks. National budgeting processes for sector ministries are the most often cited, with 43% of countries indicating that WASH is addressed in an annual budgeting process and 11% of countries indicating the identification of WASH in multi-year budget or expenditure frameworks.

National Budgeting Reflects the Growth in Demand

Both government budgets and expenditure trends can be indicators of priorities in national policy and action. GLAAS request the most recent annual line ministry budgets for water, sanitation and hygiene to determine the level of public funds being allocated to WASH as well as historical budget trends. Data from both the GLAAS 2013/2014 and 2016/2017 cycles show increasing government budgets and expenditures to address the growing needs of the water and sanitation sector.

In the GLAAS 2016/2017 survey, a total of 57 countries provided WASH-specific budgets for government ministries or an aggregated national budget for WASH services. The 57 countries represent 4.4 billion people and reported US$ 85 billion in annual budgets for WASH. A range of fiscal budget years was reported from 2014 to 2017. Three countries alone (China, Brazil, and India), representing 2.9 billion people, report US$ 67 billion in annual budgets for WASH.





More than US$ 85 billion is budgeted for WASH in 57 countries representing a population of 4.4 billion.

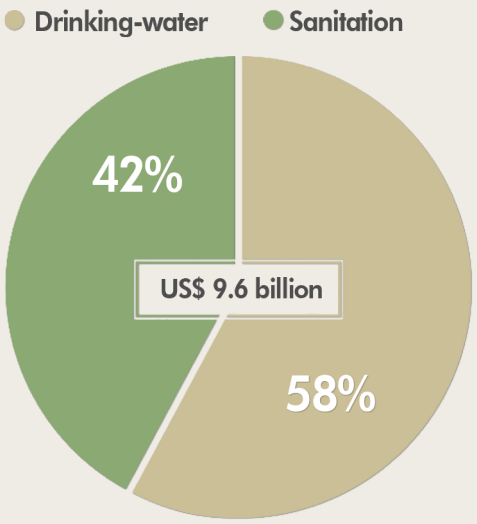
The Major Share of Budget Allocations

Twenty-five countries reported government budget allocations, at least partially, between drinking-water and sanitation, with 42% allotted to sanitation services.

Disaggregated budget	Number of countries	Aggregate WASH budget (US$ millions)
Drinking-water	25	5 574
Sanitation	25	3 979
Hygiene promotion	12	89
WASH in health care facilities	5	27
WASH in schools	6	225

4.9% Increase in Funding

The data from national budgets and expenditure, though limited, indicate that government allocation and spending for drinking-water and sanitation is increasing and thus suggest that WASH prioritization has improved. The average annual rate of budget increase for 17 countries that provided data to GLAAS in 2013 and 2016 is 4.9%.



Seventeen countries that responded to recent GLAAS surveys provided comparable government WASH funding between both reporting years. These 17 countries, representing a population of 830 million, reported WASH budgets of US$ 8 billion in 2012/2013 fiscal year. The same countries reported a WASH funding of US$ 9.1 billion for budget years 2015/2017. Twelve out of the 17 countries reported government WASH budgets rising faster than the local price index.

But Increased Budgets Still Fall Short

Despite increasing WASH budgets, a majority of countries still estimate that financial allotment for drinking-water, sanitation and hygiene improvements remains insufficient to meet nationally determined WASH needs. For example, Kenya notes that budget allocations for water supply infrastructure of US$ 340 million per year are a quarter of the required investment needs of US$ 1.3 billion. In South Africa, it is estimated that capital and O&M of US$ 6.3 billion per year also fall short, despite a US$ 3.6 billion annual budget.

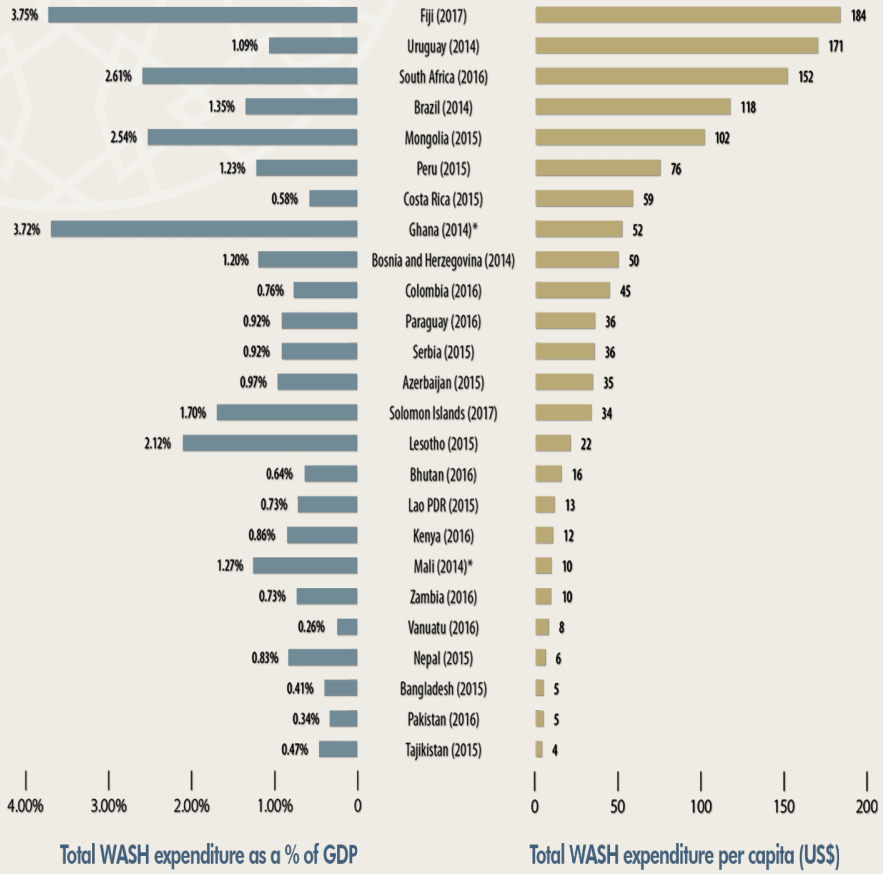
Furthermore, national budgets do not necessarily equal expenditure. In some countries, wide disparities were observed between budget and expenditure. Estimating national WASH spending requires information sharing and coordination among the many different sectorial institutions and levels of government, service providers, non-governmental organizations and external development partners.

More Funding Required for Countries to Meet SG6 Targets

The sources of financing for drinking-water and sanitation services can include:

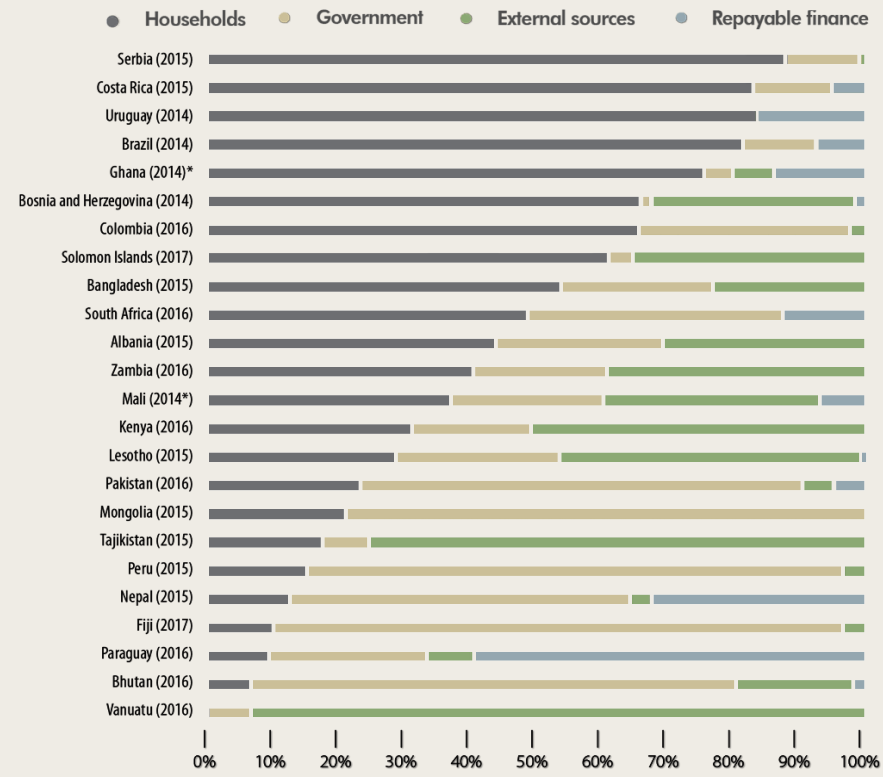
- Households – includes household tariffs and fees paid to service providers and repayable finance raised by public utilities, as well as household investment in self-supply solutions and household level sanitation.
- Taxes (government) – funds originating from domestic taxes that are channelled to the sector by central, regional and local governments.
- Transfers (external sources) – funds from international donors and charitable foundations. Transfers include grants and concessional loans, which include a grant element in the form of subsidized interest rate or a grace period.

Twenty-five countries were able to provide WASH expenditure data sourced from households, government, and external sources in the GLAAS 2016/2017 country survey. The 25 countries represent a population of 875 million with a total reported WASH expenditure of US$ 43 billion, and an average of US$ 50 WASH expenditure per capita.



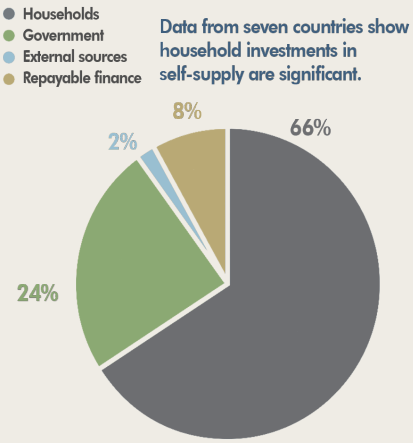
The sources of finance can vary widely by country: some countries report major contributions from households (e.g. Brazil, Costa Rica, Serbia, Uruguay), others report more reliance on

external aid (e.g. Kenya, Lesotho, Tajikistan), and a few countries report that national finance supports the majority of WASH expenditures (e.g. Bhutan, Fiji, Pakistan, Peru). Repayable sources of finance are significant in a number of countries including Nepal, Paraguay, South Africa, and Uruguay.



Data from 25 countries indicate that two thirds of their WASH financing was derived from household contributions.

Overall, external aid for these 25 countries amounted to only two per cent of total WASH expenditure, in part because a majority of the respondent countries that were able to provide data on household contributions are categorized as middle-income countries and receive relatively small amounts of development aid for WASH.



Is the UN SDG6 Achievable?

The UN SDG6, ensuring access to sustainable water and sanitation for all is firmly established in the UN's 2030 Agenda for Sustainable Development. Sustainable water and sanitation contribute to greater livelihood opportunities, improved human welfare and a healthier environment. The critical question remains whether the global community is on course to realise this lofty goal.

The main components of the pathways to sustainable water supply and sanitation services, include the set of predictable and scalable financial sources, mechanisms that support the expansion, upgrade, operation and maintenance services. While countries continue to make progress towards increased access to sustainable WASH services, financial resources remain a critical issue, and more effort is needed for both attracting new resources and better utilizing existing resources. The current level of WASH financing is not sufficient to fund plans inspired by the SDGs and falls short of future requirements. This gap poses a real threat to the possibility of achieving the SDGs by 2030.

Nearly two thirds of countries that participated in the GLAAS 2016/2017 survey have undertaken comprehensive and inclusive sector review and many are in the process of integrating the SDGs at the national level. Most countries have financial plans for WASH and national budgets are increasing by an average of 4.9% above inflation annually, demonstrating a solid commitment to WASH services. However, two thirds of countries report that these financial plans are not consistently followed. Furthermore, 80% of countries surveyed reported inadequate funding to meet their national targets.

Households continue to be the major source of WASH financing in the countries surveyed, which places a heavy burden on the most vulnerable and the poor. To achieve the SDGs, a focus on equity and provision of sustainable services to vulnerable populations is required.

Overall, the research suggests that nations are moving in a positive direction, signifying that the UNSDGs are working at policy level and changing lives at the ground level. While there is still a lot of work ahead for many countries, with appropriate policy framework, innovative technologies, strategic financing and effective governance, the UNSDGs, in general and SDG6, in particular, can be realised.

References:

- www.wri.org
- www.undp.org
- www.adb.org
- www.who.int
- www.unwater.org