



WaterAid/ Jon Snow

Blueprint: financing a future of safe water, sanitation and hygiene for all

May 2021



Cover photo: Adapted image from WaterAid's giant sand portrait on Whitby Beach. Artists from Sand in Your Eye created the portrait of 12-year-old Ansha from Frat in Ethiopia, who spends hours each day collecting dirty water from a river. March 2021.



▲ Kalabogi village, Khulna, Bangladesh. Tidewaters overflow this area regularly and in May 2020 Cyclone Amphan destroyed most of the village's riverside toilets. August, 2020.

This is an End Water Poverty and WaterAid report based on research by Development Initiatives. The principal authors are Richard Watts, Dan Walton and Duncan Knox (Development Initiatives), with contributions from Al-hassan Adam (End Water Poverty) and Chilufya Chileshe, John Garrett, Kathryn Tobin and Thomas Yeung (WaterAid).

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1: Introduction



In 2015 the Sustainable Development Goals (SDGs) set an ambitious agenda to deliver a better and sustainable world by 2030. At their inception there was common realisation of the need for a significant scale up in financing to achieve them. The Addis Ababa Action Agenda, agreed at the UN Third Financing for Development Conference in Ethiopia in 2015, set out a relevant framework based on the mobilisation of public and private finance, sourced domestically and internationally. To improve the understanding of the total quantity of financing required several studies around the inception of the SDGs developed models to estimate the cost of meeting SDGs targets within specific sectors.¹ Composite analysis such as that carried out by the United Nations Conference on Trade and Development (UNCTAD) and the UN Sustainable Development Solutions Network (SDSN), estimated that trillions of dollars were required annually. Low-income countries (LICs) faced the steepest challenge, requiring significantly more resources proportional to their economies and development needs.²

Studies by the SDSN and the International Monetary Fund (IMF) have provided scenarios for closing the SDG financing gap through increased domestic and international taxation, greater international public financing, private sector investment and philanthropy.³ However, there has been limited progress in scaling up finances, and as a result many of the SDG targets are off-track in LICs and lower-middle income countries (LMICs).⁴ The COVID-19 pandemic and accelerating climate change add to the challenges facing humanity. It is therefore imperative that there is a tangible shift in emphasis globally towards scaling up the necessary finance to achieve the SDGs.

The 17 UN Sustainable Development Goals



Deni Nandar Sukanwar, Shutterstock

To support the need for a substantial shift in progress on the SDGs, it is critical that there is a regular review of the costing models and financing gaps. This enables policy and decision-making to be based on up-to-date data. It is within this context and wider landscape that this report focuses on the water supply, sanitation, and hygiene (WASH) sector in several ways.

(i) It provides an update of the World Bank's 2016 WASH costing model. As shown by the health sector's Disease Control Priorities model, there are significant benefits from regular updates.⁵ As well as revising unit costs within countries, it includes improvements in data on WASH access levels and population projections as well as estimates for climate-resilient infrastructure.

(ii) It analyses options for the prioritisation of resources. Recent papers on understanding the financing gap across a range of different SDG relevant sectors show the need to scale up funding across the board. For example, the 2019 IMF paper shows that on average an additional 8.8% of Gross Domestic Product (GDP) across Low-Income Developing Countries is required for the education and health SDGs, compared to 7.1% for electricity, roads and WASH. This illustrates that the challenges of funding and financing SDG 6 are inter-related with those of other SDGs and unlikely to be met in isolation.

In presenting future financing scenarios, the report looks at opportunities from public finance, private finance as well as potentially complementary areas such as climate finance. It also compares the cost of achieving safely-managed water and sanitation targets with the cost of basic service provision.⁶ In the light of the COVID-19 pandemic it estimates the level of funding required to ensure basic hand washing facilities are available to all to help in the fight against the spread of infections.

▼ The report focuses on the cost of achieving universal access to water, sanitation and hygiene: women on their way to collect water. Frat, Ethiopia. October 2020.





▲ **Coral reef: the final section considers how financing of SDG 6 can be considered in the context of the whole of Agenda 2030 for Sustainable Development.**

The report is structured into seven sections. After this introduction to SDG financing gaps, the second section provides an update and revised costing methodology for SDG 6. This aims to ensure it remains as relevant as possible, reflecting better data and the need to ensure aspects like climate adaptation are included. The third and fourth sections focus on the landscape for development finance and climate finance respectively, considering how these sources contribute to the water and sanitation sector. The fifth section considers what the current business as usual medium-term (up to 2025) funding picture looks like for SDG 6 and offers a best-case scenario for bridging the gap. The sixth section builds on this analysis and identifies the key actions for progress on SDG 6. The final section places financing SDG 6 within the broader context of Agenda 2030 and considers the type of transformation in finance likely to be necessary to address current crises, including COVID-19, stalled progress on the SDGs, accelerating climate change and a growing unsustainable debt burden facing many developing countries.

2. Safe water, sanitation and hygiene: the financing challenge



2.1 Overview

The financial requirement of implementing WASH includes the full costs of achieving universal access to safe drinking water (target 6.1), achieving universal access to adequate sanitation and hygiene (target 6.2) by 2030 and achieving an end to open defecation by 2025. Understanding the scale of these costs is fundamental in assessing the financial feasibility of achieving universal WASH by 2030.

Table 1 - Breakdown of global populations to be served to reach safely-managed WASH by 2030 (Development Initiatives model)

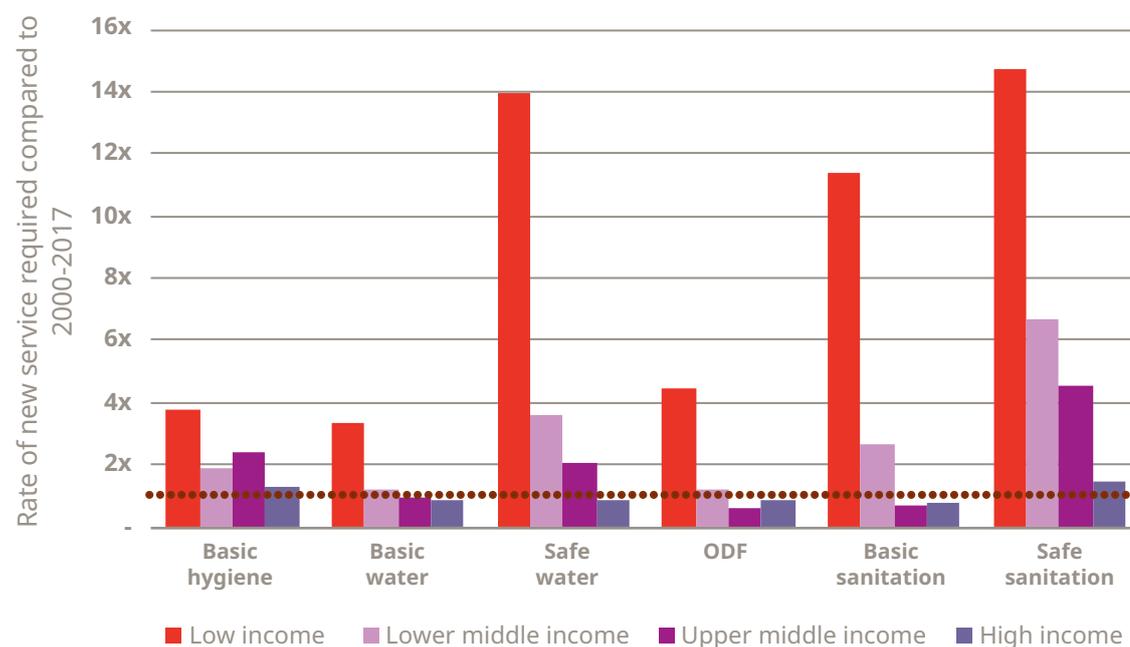
<i>(billions of people)</i>		HYGIENE	WATER		SANITATION		
		Basic	Basic	Safe	ODF	Basic	Safe
Currently served (2017)	Urban	3.3	4.0	3.2	4.1	3.5	2.7
	Rural	1.8	2.8	1.7	2.8	2.0	1.5
To be served 2018-2030	Urban	1.8	1.1	1.9	1.0	1.6	2.4
	Rural	1.6	0.7	1.7	0.6	1.4	1.9

Source: Development Initiatives based on Joint Monitoring Programme, United Nations Statistics Division, World Bank, WaterAid country programmes and other national sources.

Notes: Data are for 233 economies.

Using a model adapted from World Bank (2016), Development Initiatives has produced a global estimate for the cost of achieving universal, climate-resilient WASH by 2030. The model includes coverage data for 2017, recent demographic projections and estimates of technology unit costs and requirements.⁸ The cost of implementing WASH is examined in 233 economies, disaggregated between urban and rural areas. The model produces estimates for both capital and operating and maintenance costs (O&M) across six components of WASH: Open Defecation Free (ODF), basic hygiene, basic water, basic sanitation, safe water and safe sanitation.

Figure 1 - Required acceleration rate for annual provision of new WASH services compared to that achieved in 2000-2017



Source: Development Initiatives based on Joint Monitoring Programme, United Nations Statistics Division, World Bank, WaterAid country programmes and other national sources.

Notes: Data are for 233 economies.

Primarily, the model relies on data on the number of people who are either currently served or are yet to be served by different areas of WASH. Table 1 presents the breakdown of the 2018 and 2029 global population based on 2017 coverage estimates from the Joint Monitoring Programme (JMP) and population projections from the United Nations World Urbanisation Prospects.⁹ While the population currently served contains the population already covered by WASH systems, the population to be served by 2030 contains both the 2017 unserved population and future population growth into 2029. According to UN projections, population growth alone from 2018-2029 will account for a further 930 million people who will require WASH systems in place.

The scale of population needed to be newly served in the period 2018-2029 can be compared to progress made since the advent of the Millennium Development Goals (MDGs): figure 1 breaks down the required rate of new service compared to that achieved in 2000-2017 by WASH component and country income group. The figure demonstrates that in all income groups, the provision of safe sanitation must be accelerated the most for the achievement of universal WASH by 2030. However, the differences between income groups is particularly stark: whereas in high income countries the new rate of service needed to achieve universal coverage by 2030 is just 1.5 times the level achieved since 2000, in LICs the average annual service rate must exceed 14 times post-MDG levels for safe sanitation.

▶ Madalo, 15, and Falesi, 13, at a new handpump in Kalungama Village, Nkhotakota, Malawi, May 2018. Safe water has a transformational effect, but progress in LICs needs to accelerate markedly if SDG 6 aspirations are to be achieved.

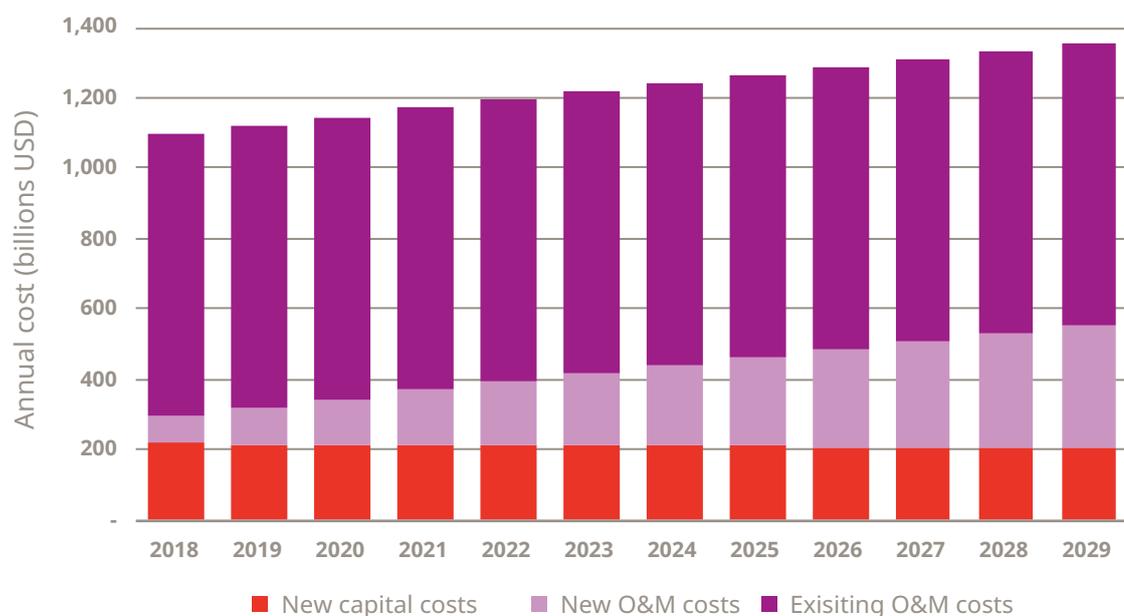
WaterAid/ Dennis Lupenga



2.2 Update of the global costs required to meet SDG 6

Using 2018 as the starting year (for which data is most recently available), an intervention-based costing approach is used to produce annual estimates for 233 economies based on projected population needs and unit cost estimates per capita. The modelled approach gives the scenario which would see the global completion of ODF by 2025, and the provision of safely managed water and sanitation to all households by 2030.

Figure 2 - New and existing global costs over 2018-2029 to reach safely managed climate-resilient WASH by 2030



Source: Development Initiatives based on Joint Monitoring Programme, United Nations Statistics Division, World Bank, WaterAid country programmes and other national sources.

Notes: Data are for 233 economies. O&M costs include capital maintenance expenditure. Figures are presented in constant 2017 prices without discounting.

The route to households achieving safely managed WASH is modelled based on a mixture of direct and indirect progression: generally, households are expected to be served firstly by basic tier services, later transitioning to safely managed WASH as an incremental improvement—this is true for the application of safe sanitation everywhere. For water, unserved households in urban areas are instead modelled to progress directly to the provision of safely managed water, whereas in rural areas progression is incremental.¹⁰ Costs in the model are expressed in constant 2018 US dollar prices without discounting to provide real total and annual cost values which are comparable and reflective of the financial burden of achieving WASH over the period.

In setting on the path to universal WASH by 2030, the total cost in 2018 to the global economy is estimated to have been over US\$1 trillion (US\$1,000 billion). Figure 2 demonstrates that the highest share of costs in attaining universal WASH are incurred in maintaining coverage of existing systems: operating and maintenance expenditure for those who are already served as of 2018 is estimated to have totalled US\$800 billion annually.¹¹ However, this cost is assumed to be already met by the global economy as WASH systems are currently in place and maintained for this level of population.¹²

Significant economic setbacks, such as that faced due to the current coronavirus pandemic, are likely to erode the ability of many economies to continue to meet the cost of maintaining existing coverage levels. Economies which struggle to meet these costs may be forced to take on debt to finance the operating and maintenance of existing systems. Otherwise these systems may fall into disuse through disrepair, reducing their effective coverage. The subsequent effect of this would be a need to replace these systems, incurring greater new capital costs in the future.

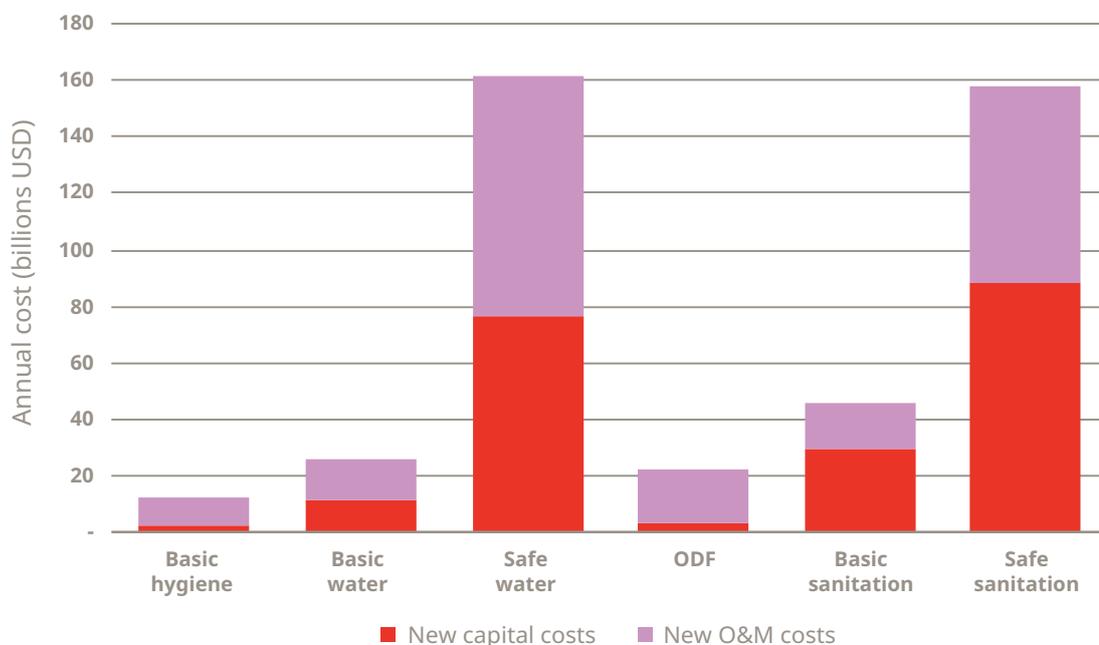
▼
**Interventions
need to be
resilient
to climate
change:
village in
Khulna,
Bangladesh,
March 2018.**



The model shows that the cost of the provision of new systems in 2018 is US\$295 billion.¹³ This requirement represents the first step in closing the gap to meet SDG 6 by 2030—assuming that all economies have set out to achieve universal WASH over the SDG period, and seek to close the gap in access evenly across the period. For 2018, these new costs are made up of \$217 billion in capital outlay required for new systems and \$78 billion for their operation and maintenance (O&M) costs. Over the period 2018-2029, the new costs of achieving safely managed WASH increase annually—due to cumulative O&M costs—reaching over \$550 billion in 2029. During this time, the cost of operating and maintaining new WASH systems reaches just under US\$350 billion in 2029 while the scale of new capital costs decreases slightly—due to projected slowing population growth—to US\$206 billion.¹⁴

The breakdown in costs by WASH sector reveals that the average capital and operating costs of climate-resilient safe water and safe sanitation are both close to US\$160 billion per year: far exceeding other areas (see Figure 3). The reasons for this are threefold: primarily, per capita unit costs of safe water and sanitation systems are comparatively high compared to basic level services; second, there is a far greater population to be newly served by safe services; finally, as safe systems are implemented, basic services are expected to fall out of use. This means that they no longer require maintenance expenditure or rehabilitation.

Figure 3 - Average new annual costs to reach safely managed climate-resilient WASH by WASH component



Source: Development Initiatives based on Joint Monitoring Programme, United Nations Statistics Division, World Bank, WaterAid country programmes and other national sources.

Notes: Data are for 233 economies. O&M costs include capital maintenance expenditure. Average new annual costs consist of Capital and O&M costs of existing and future unserved populations. Figures are presented in constant 2017 prices without discounting.

Box 1 - Climate adaptation in WASH: what are the costs?

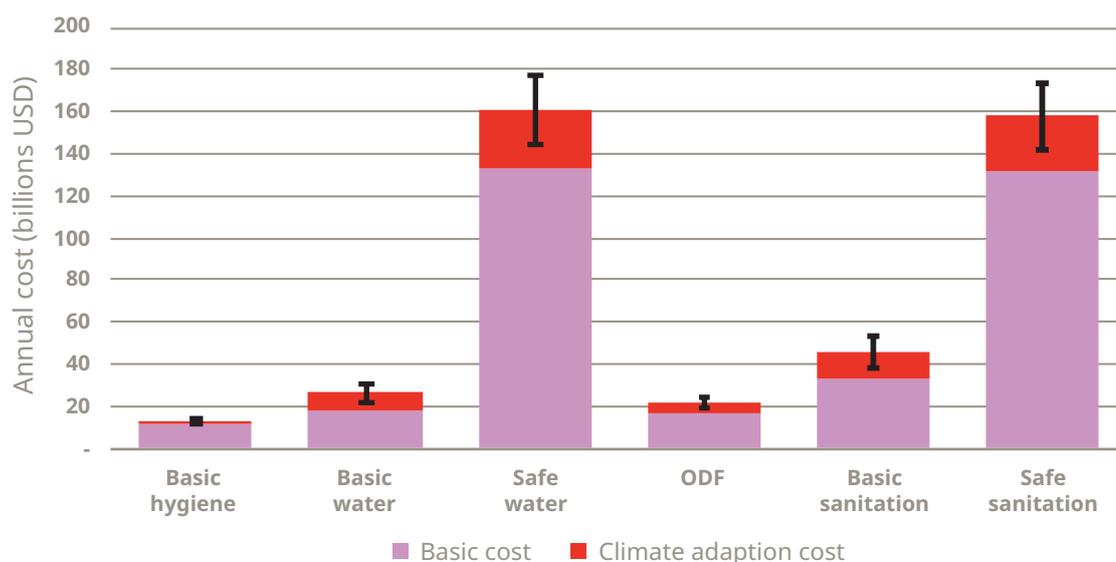
Effective long-term WASH systems must be adaptive to climate change. WASH infrastructure can be vulnerable to a range of water-related climate events including flooding, drought and rising sea levels. Locations with high vulnerability to water risks from climate change therefore require structural measures to ensure new and existing WASH systems are resilient. These measures include fortifying structures against flooding, deeper drilling into aquifers for water supply systems and more frequent rehabilitation cycles.

The added cost of climate adaptation was approached within the costing model through two factors: (1) higher unit costs of climate-resilient technologies and upgrade of existing systems and (2) reduced technology unit lifespan before rehabilitation is required. Countries which exceed the average (mean) ND-GAIN (Notre Dame Global Adaptation Initiative) climate vulnerability index score for water are classified as being water vulnerable due to climate change, and have the following premiums applied:

- Increased unit costs by 12.5% (range 5%-20%) for climate-resilience (adaptation) measures. This is based on case studies conducted by the Overseas Development Institute (ODI) and WaterAid Country Programmes and is in line with the projected range by the World Bank (2006) for total extra costs of climate adaptation measures for WASH.
- Reduced average unit lifetime by 10% (range 5%-15%) before rehabilitation is required due to increased frequency of extreme weather events. This is based on the World Bank Shock Waves (2016) report which projects the number of new floods and droughts due to climate change by 2030.

The new costs of climate adaptation measures alone as specified in the costing model average US\$83.7 billion annually (range US\$34.4 billion–US\$131.6 billion).

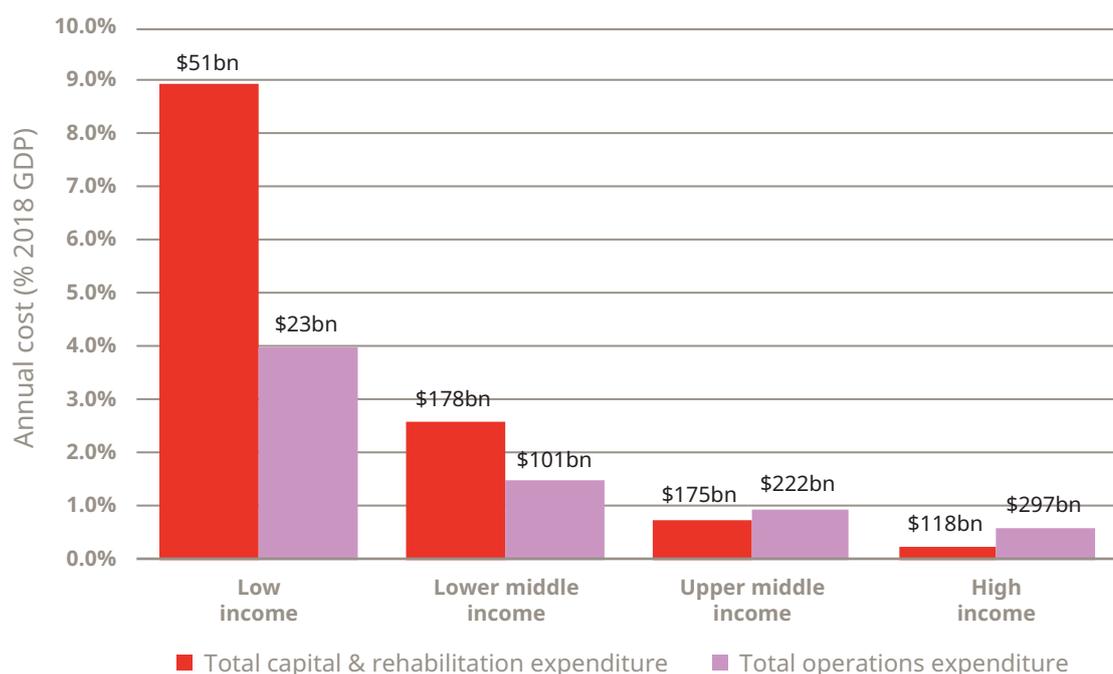
Figure 4 - Average new annual costs to reach climate-resilient safely managed WASH by 2030



Source: Development Initiatives based on Joint Monitoring Programme, United Nations Statistics Division, World Bank, WaterAid country programmes and other national sources.

Notes: Data are for 233 economies. O&M costs include capital maintenance expenditure. Average new annual costs consist of Capital and O&M costs of existing and future unserved populations. Figures are presented in constant 2017 prices without discounting.

Figure 5 - Average annual costs to reach safely managed climate-resilient WASH by 2030 by country income group

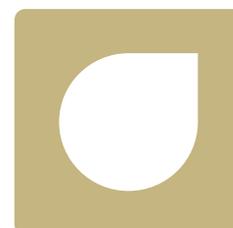


Source: Development Initiatives based on Joint Monitoring Programme, United Nations Statistics Division, World Bank, WaterAid country programmes and other national sources.

Notes: Data are for 233 economies. Cost include full coverage of safely managed water, sanitation, and basic hygiene. Figures are presented in constant 2017 prices without discounting.

Figure 5 shows how the burden of costs are distributed across country income groups; while the scale of operating and maintenance of existing WASH systems in High-Income Countries (HICs) and Upper-middle-income countries (UMICs) significantly exceeds all other estimated costs (\$297 billion and \$222 billion respectively), in terms of requirements as a share of GDP the greatest costs are capital and rehabilitation requirements in LICs (almost 9% of GDP). The total capital and rehabilitation requirements for reaching new and unserved populations in LICs and LMICs are an average US\$229 billion each year through to 2030. This includes the cost of building resilience to climate change.

While new capital costs in high income countries are ostensibly low (less than \$25 billion of the \$118 billion total for both capital and rehabilitation), expenditure on new large infrastructure (such as the £4.9 billion Thames Tideway Tunnel in London, United Kingdom)¹⁵ are mostly classified as rehabilitation expenditure for the currently served, as they represent an upgrade or replacement of existing systems which already meet the criteria for safe coverage. Estimated costs for the rehabilitation or upgrading of current safe systems alone in High Income Countries (HICs) total \$94 billion annually.

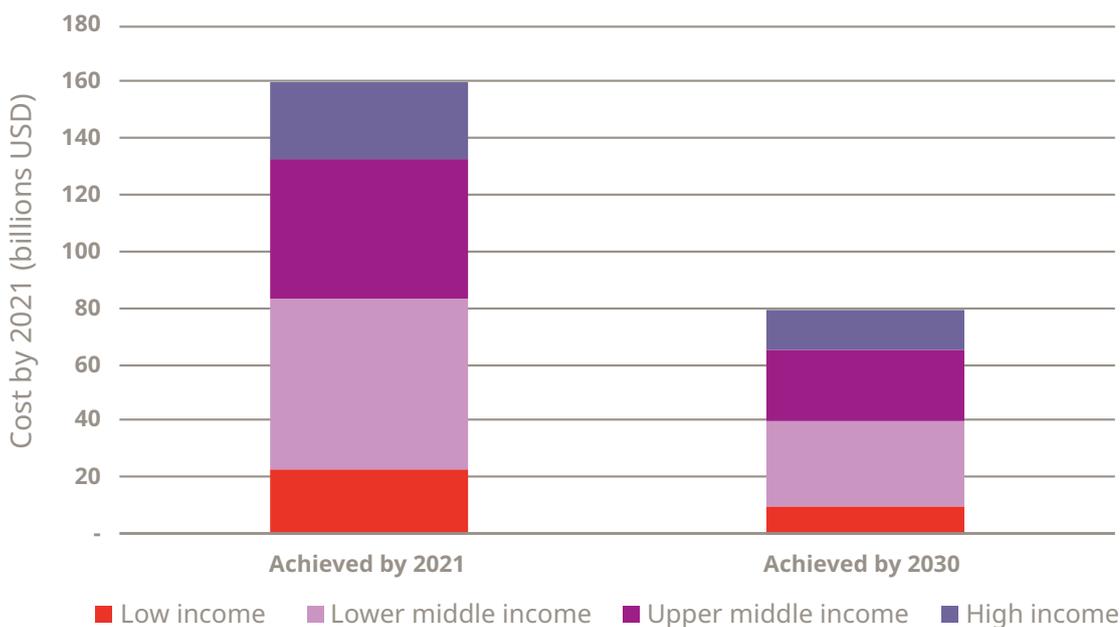


Box 2 - WASH and COVID-19: the cost of achieving basic hygiene and water by 2021

The World Health Organization (WHO) states that one of the most effective methods of preventing the transmission of COVID-19 is basic hygiene. Basic hygiene, along with basic water systems, represent a cornerstone for preventing the transmission of infectious diseases. This fact exposes the increased risk to disease that many countries face without adequate coverage of basic WASH systems. Achieving universal basic hygiene and basic water with an accelerated timetable—by 2021—may be key to slowing the COVID-19 pandemic. An estimation of the costs involved shows the need for more than double the annual original target investment level for new infrastructure before 2021.

The new costs of achieving universal basic hygiene and basic water globally by the beginning of 2021 is \$160 billion, mostly concentrated in low income and lower-middle income economies. This is \$81 billion more than the original target for total investment over the same period which would otherwise be on track to achieve universal basic hygiene and water by 2030 (Figure 6).

Figure 6 - New costs by 2021 for achieving basic hygiene and basic water with an accelerated timeline



Source: Development Initiatives based on Joint Monitoring Programme, United Nations Statistics Division, World Bank, WaterAid country programmes and other national sources.

Notes: Data are for 233 economies. Average new annual costs are capital and operation & maintenance costs of current and future unserved populations. Figures are presented in constant 2017 prices without discounting.

The estimated required capital and rehabilitation costs may be directly compared with what national governments currently spend on WASH. For example, the Infrastructure Consortium for Africa reports that expenditure by African national governments in the water sector was US\$5.9 billion in 2017, contributing to a total of \$13.2 billion investment in Africa's water sector that year—the rest made up by external actors; however, the projected annual capital and rehabilitation expenditure to achieve universal WASH by 2030 in Africa is over ten times this value at US\$145 billion.¹⁶



With the number of factors required for consideration in an international level WASH costing estimate, there are significant challenges surrounding data availability and accuracy. For example, in cases where representative coverage data or realistic unit cost data are unavailable, assumptions must be made to fill these gaps. Another concern is the approach to the costs of climate adaptation, where little long-term data exists on the true costs of building climate-resilient WASH systems. The cost estimates presented here use a global model based upon a wide range of national data sources. These are derived from local WASH experts and organisations to provide an accurate basis for international level costs. The model itself is intended as a framework upon which any available and accurate data can be input to provide international, national and subnational WASH cost estimates. Ultimately, although the projections generated through this costing method are not completely precise, they nevertheless reflect the scale of funding and finance required to meet universal climate-resilient WASH globally.

▼ **COVID-19 has highlighted the vital role of hygiene in preventing infection. female Pupils washing their hands, Simango School, Kazungula District, Zambia, October 2020.**



WaterAid/ Chileshe Chanda

Box 3 - Localised costings helping to inform decision making in Ethiopia

There is a great benefit in local level WASH costing exercises, which provide up to date and relevant data to feed into national and international costing models. Local costings also provide additional clarity on approaches to implementing WASH, which can improve national-level and international WASH costings. This approach was used by UNICEF (2019) and the One WaSH National Programme (2018) in Ethiopia, by capturing local unit costs and technology approaches in different regions of the country to improve the accuracy of national estimates.

Local costs of WASH implementation may be derived from a range of sources, including government budget documents and non-governmental organisation (NGO) assessments. A key example of the latter is a life-cycle cost analysis assessment (LCCA). LCCAs conducted by WaterAid in Ethiopia focus on local government woredas, collecting data on the coverage and use of WASH services and the costs of local WASH technologies. Such LCCAs demonstrate the usefulness of localised costing exercises to inform accurate implementation costs: the per capita unit cost of WASH systems, including support and operating expenditure, becomes readily available.

Further important information may also be derived from local LCCAs: for example, WaterAid's Ethiopia studies found that the number of beneficiaries per basic water supply scheme in rural areas was significantly lower than the stipulated national water policy estimates. This finding prompts a recalculation of the required number of water supply schemes to meet the needs of the same population in a national costing model, resulting in a higher effective per-capita unit cost.

2.3 Sufficiency of funding at national level

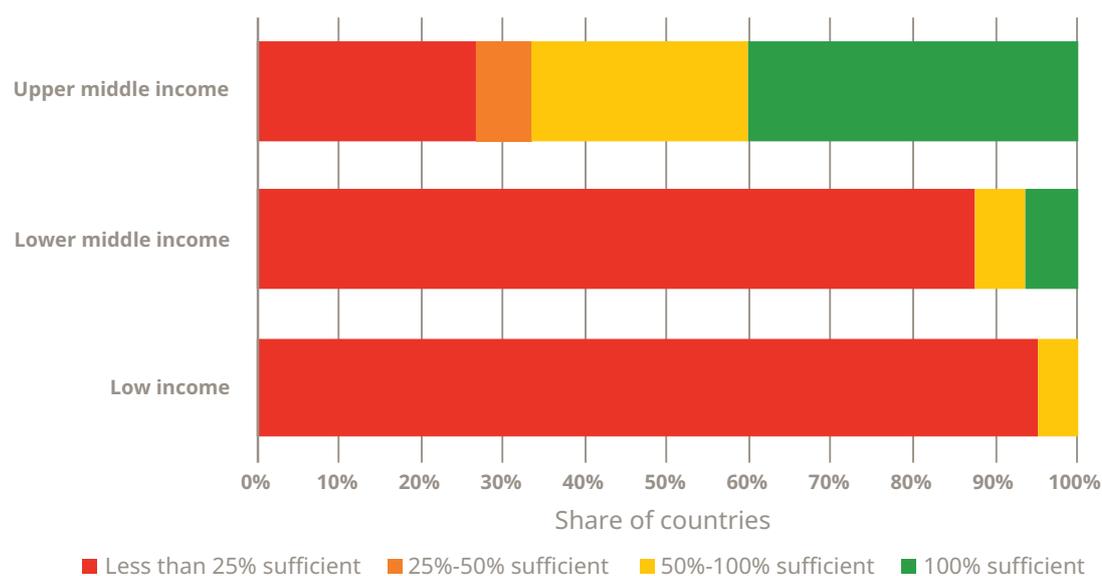
The sufficiency of existing WASH budgets against projected needs to achieve universal WASH by 2030 may be examined against the estimated costs of the previous section. In a very best-case scenario, it may be assumed that government expenditure need only cover the capital outlay for new WASH systems while rehabilitation, operating and maintenance needs are entirely met by cost recovery schemes, such as utility tariffs or community management user fees; in practice however, this is rarely the case.

Regardless, the burden on public finance from capital requirements alone is high—and particularly so in LICs and LMICs. In 2018, over 85% of LICs and LMICs had total domestic public expenditure which did not meet even one quarter of the projected finance requirement for capital expenditure on WASH. This contrasts with UMICs, where 40% of countries had enough public funds to meet these needs (Figure 7).

This gap between financing requirements and need was also stressed in the 2019 Global Analysis and Assessment of Sanitation and Drinking Water (GLAAS) report, where over 80% of countries surveyed stated that there was insufficient financing to meet WASH targets. Of those, no LICs and only three LMICs (Mauritania, Morocco and Tunisia) reported over 75% of sufficiency for all WASH services. In addition, within a sample of twenty country governments the report outlined a total quantitative financing gap of 61%.

Moving forward in the pursuit of global universal access to WASH it will be critical to understand the different needs and availability of funding at sub-national level. Box 4 illustrates that in Nigeria there is a general shortfall in available funding when measured against need, but also that there is wide variation between States. Good subnational data can enable better decision-making on resource allocations and use.

Figure 7 - Sufficiency of existing public WASH financing according to need in 2018, by income group



Source: Development Initiatives based on Joint Monitoring Programme, United Nations Statistics Division, World Bank, WaterAid country programmes and other national sources.

Notes: Data are for 57 economies.

Box 4 - Variability between financing needs and availability at the sub-national level

The Federal government of Nigeria declared a state of emergency in the water and sanitation sector in November 2018 and in response developed an Action Plan for Revitalisation of the Nigeria's WASH Sector. Within it the capital investment required nationally has been disaggregated by State. Previous research by WaterAid has shown that there is a wide variability in public investment, ranging from 2.5% to 18.5% of funding sufficiency.

Figure 8 - Estimated State Government WASH budget allocations vs yearly estimated capital investment required

State	Budget (US\$m)	Estimated yearly capital investment required (US\$m)	Total budget as % of annual requirement
Abia	8	113	6.8
Bauchi	30	249	12.0
Borno	17	193	9.0
Delta	8	157	5.4
Ekiti	2	99	2.5
Gombe	15	100	15.3
Kano	73	392	18.7
Kebbi	22	140	15.7
Lagos	25	441	5.8
Plateau	12	133	9.1
Rivers	10	224	4.7

Source: Various State government budget documents for financial year 2017 or 2018. Costing estimates within the National Action Plan for Revitalisation of the Nigeria's WASH Sector.



▲ Cross-sectoral budgets are also important to ensure sufficient finance for water, sanitation and hygiene in schools and health care facilities. Ansha writing and teacher Belayush supervising, school in Frat, Ethiopia. February 2020.

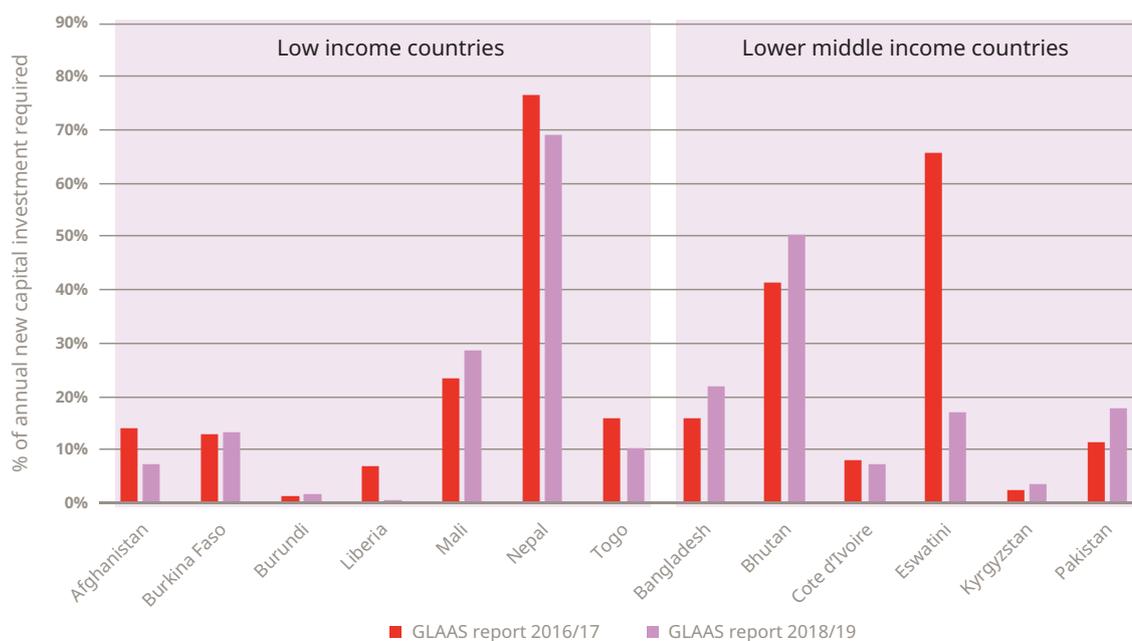
3. Development finance landscape



3.1 Domestic resource mobilisation and public investment

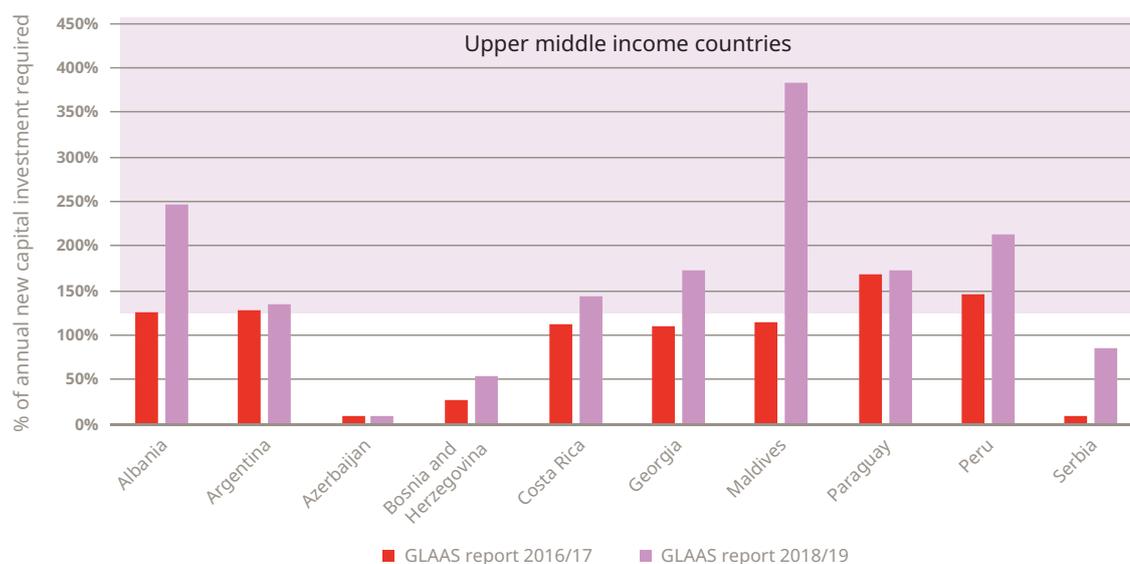
Domestic public resources are a critical source of finance for achieving universal access to water, sanitation and hygiene. Their comparative advantage over other resources is that they are raised and spent by governments, who ultimately are responsible for the progressive realisation of the human rights to water and sanitation. The commitment by government to achieve universal access at a national level also means that they can target funds where the need is greatest. Private finance for example will seek a rate of return, which may not be available in the poorest communities. Government funding can deliver greater predictability than other sources such as Official Development Assistance (ODA), enabling more effective medium- to long-term development planning. However, whilst this is a crucial form of finance, particularly for capital investment, evidence from recent GLAAS reports suggests that limited progress has been made in scaling up domestic public resources to meet financing needs, particularly in LICs and LMICs (see Figure 9).

Figure 9 - Government WASH budget allocations as a percentage of total required investment, 2016/17 and 2018/19 GLAAS survey¹⁷



Source: National systems to support drinking-water, sanitation and hygiene: global status report 2019. UN-Water Global Analysis and Assessment of Sanitation and Drinking-water (GLAAS) 2019 report.

Figure 9 - Government WASH budget allocations as a percentage of total required investment, 2016/17 and 2018/19 GLAAS survey¹⁷



In addition, even where countries like Bangladesh have seen increases in allocations, the rise has been lower than proportional increases in overall budget allocations, suggesting a relatively low priority given to the WASH sector.¹⁸ Whilst this data provides important insights into the trends of domestic public resources, challenges with data hamper the full understanding of investment in WASH. More could be done by governments, donors and international institutions to track this effectively (see Box 5).

Box 5 - Challenges tracking domestic public investment in WASH

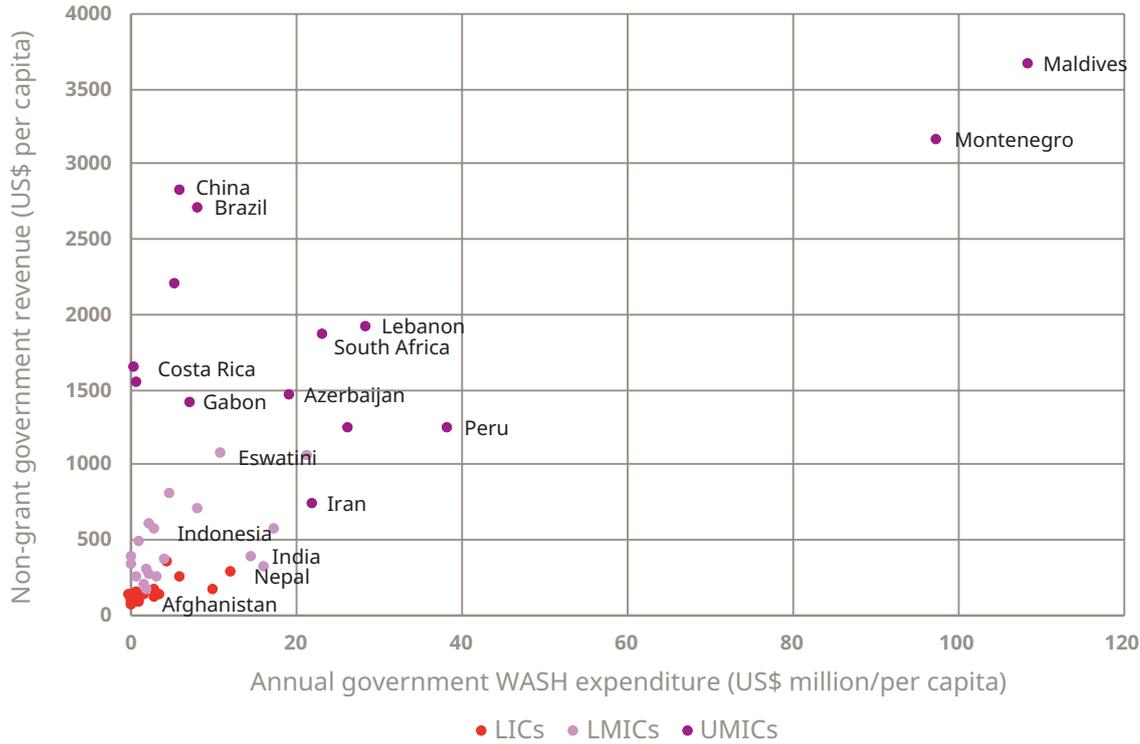
Tracking government expenditure on WASH is challenging for several reasons. First, although there are international standards of budgetary reporting which define water supply and sanitation functions, such as the Classification of the Functions of Government (COFOG), countries often do not report to these prescribed standards and in many cases have their own budget coding practices. While some functions like education and health are often identifiable across countries, WASH definitions vary and can factor in wider aspects such as water resource management, irrigation, and abatement of water pollution. Second, accurate tracking of government WASH expenditure can also be challenging as there are often high levels of horizontal (across ministries/agencies) and vertical (between different tiers of government) dispersion of government responsibilities in the sector.

To try and improve knowledge of a country's investment in WASH, the World Health Organisation's (WHO) TrackFin initiative supports governments to identify the range of actors involved (public/private, national/sub-national) before seeking to understand the level of investment. The WHO has supported tracking across many countries since 2012, leading to an increase in country reporting to the UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS). Whilst many additional countries would benefit from taking part in this initiative, it is imperative that public financial management systems overall are of sufficient quality to enable meaningful data collection and analysis.



There may be a multitude of reasons behind these trends of underfunding, some of which are country- or context-specific. However, one central factor in a government's ability to finance WASH through domestic public resources is the sufficiency of its revenue mobilisation efforts to create fiscal space. As shown by Figure 10 below, there is a correlation between a government's revenue mobilisation and its own national financing of WASH.

Figure 10 - Government non-grant revenue generation vs. WASH funding



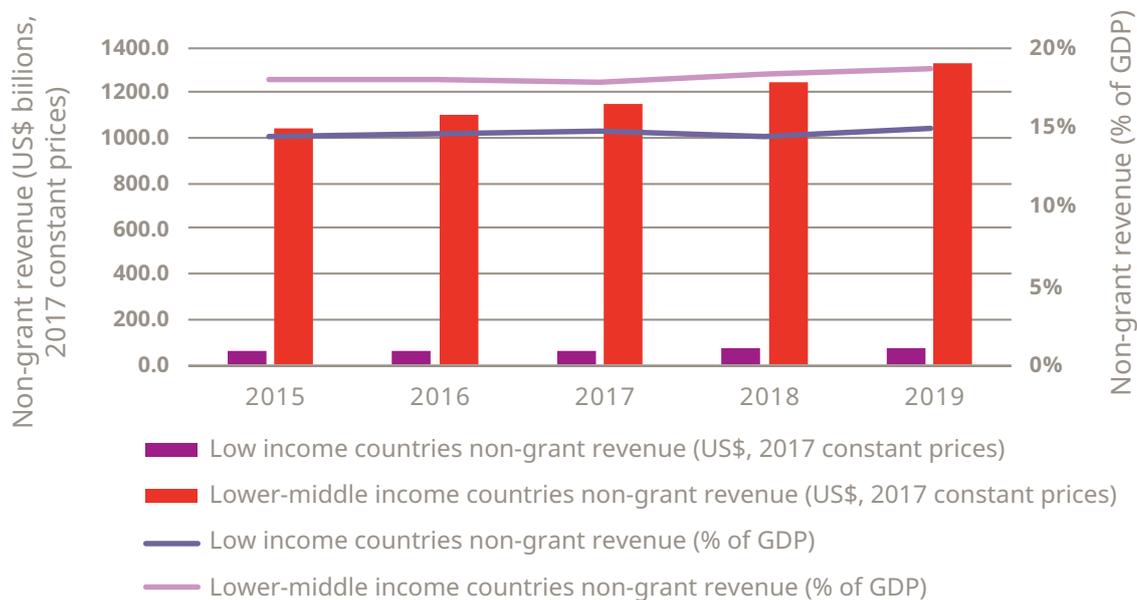
Source: National systems to support drinking-water, sanitation and hygiene: global status report 2017 and 2019. UN-Water GLAAS 2019 report; IMF article IV staff reports. Various national government budget documents.

Notes: Chart includes data for 57 countries from one of the following sources: i) specified government WASH spending in the 2019 GLAAS report; ii) specified government WASH spending in the 2017 GLAAS report; iii) specified spending in TrackFin reports; or iv) reported relevant data in government budget documents.

Given the link between government revenue mobilisation and domestic public investment in WASH, the lack of significant scale up in WASH financing is therefore not surprising given the limited progress on domestic revenue mobilisation over the last 5 years. This is particularly the case in LICs (see Figure 11), both in overall terms and as a percentage of economic output.

Behind this general picture of stagnating progress on revenue mobilisation and domestic public investment in WASH, consideration of individual countries highlights both progress and challenges.

Figure 11 - Changes in non-grant revenue generation in LICs and LMICs, 2015 - 2019



Source: IMF Article IV staff reports.

Notes: 2019 contains countries reporting a range of actual and projected figures. Where projections are given these are predominantly in year, so are based on known conditions.

▶ India has made significant progress over recent years, but major challenges still remain. Gita Maity (63) collects dirty water from the ghat (bank) of the pond near her house, West Bengal, India. February 2021.



WaterAid/ Ranita Roy

Examples of increased revenue generation and investment in WASH –

Prior to the COVID-19 pandemic India experienced several years of strong economic growth. This led to a significant expansion in domestic public revenue. At the same time the government reduced spending on petroleum subsidies (from 1% of GDP in 2012/13 to 0.16% of GDP in 2018/19), considering these to be ‘anti-poor’. The combined effect of these measure was to create fiscal space for funding sectors such as WASH. Key Union Government schemes such as the Jal Jeevan Mission and the Swachh Bharat Mission grew by 62% between 2014-15 to 2018-19.¹⁹ Like India, before the pandemic Ethiopia experienced significant economic growth, leading to a boost in revenue generation. The government showed a commitment to spending more on poverty reduction, including investment in WASH.²⁰ The government of Mali also made strides over recent years in increasing revenue generation, despite security issues. The increased fiscal space has seen domestic public investment in WASH grow by 41% from 2014 to 2018.²¹

Examples of increased revenue generation and low scale of WASH investments –

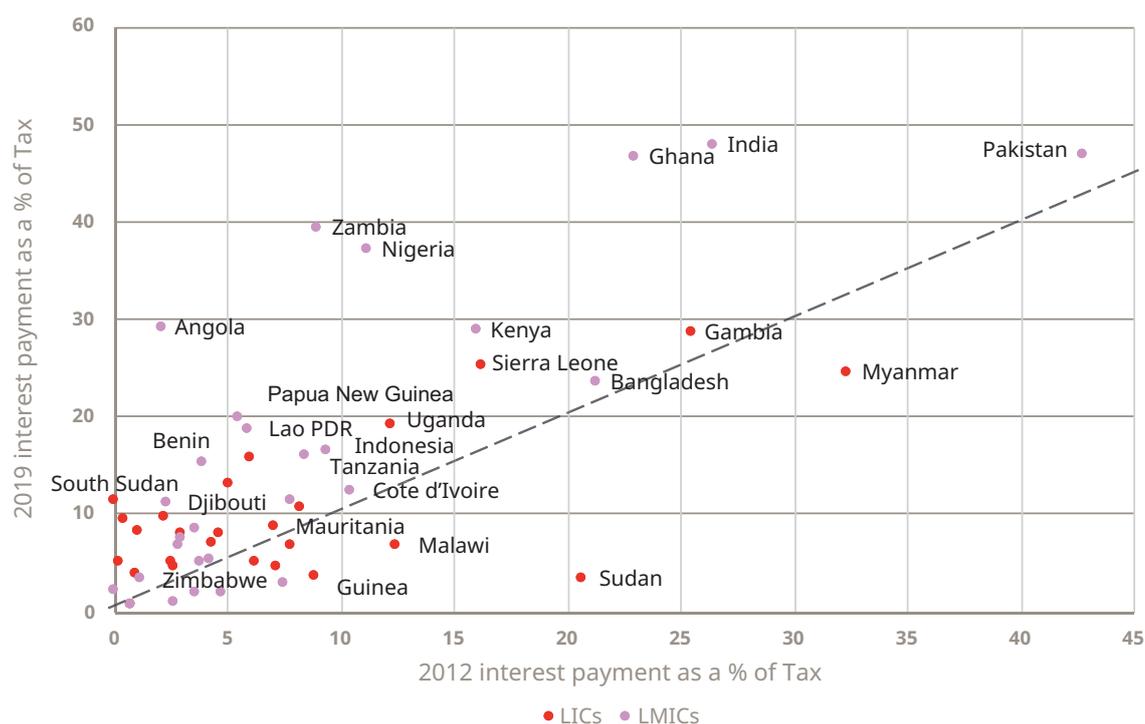
Uganda and Pakistan have both achieved strong recent economic growth and increases in revenue mobilisation. However, a central focus of their development plans is on the prioritisation of economic infrastructure (e.g. roads, ports etc), rather than on the WASH sector, so although small increases in WASH have been seen, other sectors have seen larger increases in investment. Alongside increases in domestic public resources being used to finance economic infrastructure development, Uganda and Pakistan and many other countries have also made wide use of available non-concessional financing. Although this has allowed for new investment, it has also led to a rapid increase in interest payments on external debt in the majority of LICs and LMICs (see Figure 12). This growing need to service debt principal and interest risks constraining future fiscal space for the government’s own investment in sectors like WASH unless strong economic growth and increased revenue mobilisation can be maintained. It also indicates the need for future finance to be genuinely sustainable, reducing the risks of high and unmanageable interest payments.

Countries facing substantial challenges increasing revenue mobilisation and prioritising WASH sector investments –

There are also a range of countries, such as Burundi, Chad and Somalia, which due to political instability and conflict have experienced low economic growth with resultant challenges around raising government revenue. In addition, given the major fragility and security concerns, a central focus of domestic public spending is on delivering the basic functions of government and defence and security.



Figure 12 - Government spending on interest payments as a percentage of tax, 2012 compared to 2019



Source: IMF Article IV staff reports.

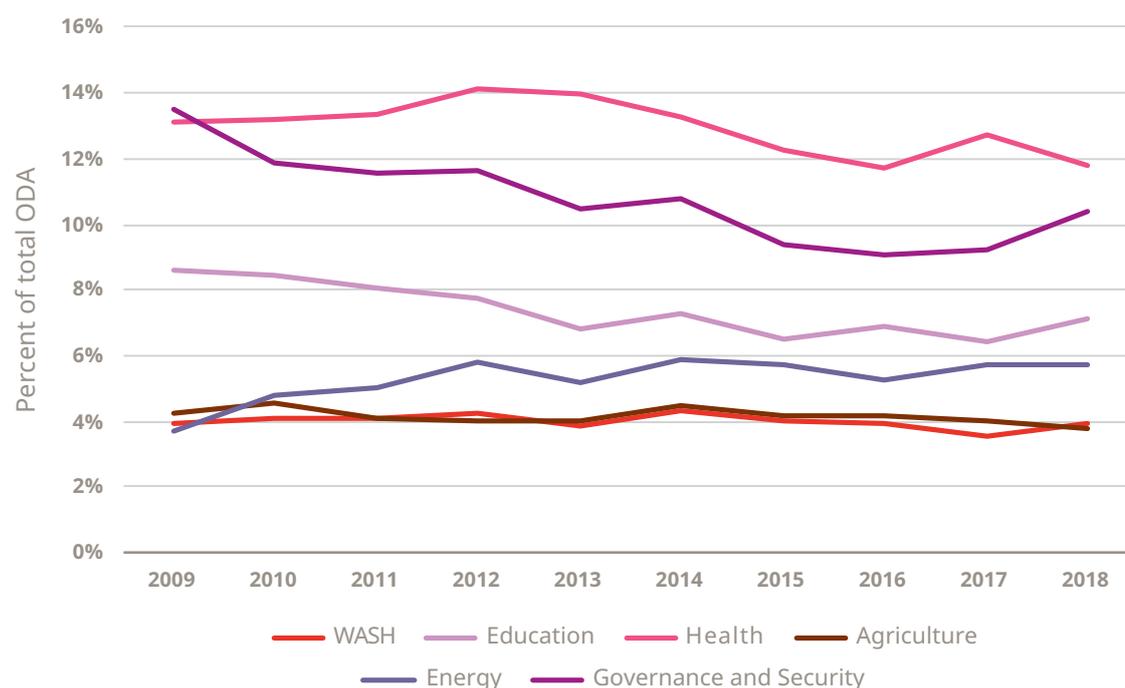
Notes: 2019 contains countries reporting a range of actual and projected figures. Where projections are given these are predominantly in year, so are based on known conditions.

3.2 ODA and international public finance for WASH

International public resources are also a key form of finance for the WASH sector. Like domestic public resources, these resources can be targeted according to need. They can support projects or programmes which are not financially viable for private sector investment or for which governments are unable to fund through domestic revenues, either because of weak public finances or difficulties in recovering costs through fees. However, it can be difficult for recipient governments to have clear oversight and predictability of these funds over the medium term. Although it is a key form of financing for the WASH sector, the ability for it to be scaled up to meet the funding gap is not clear (see Section 3).

From 2009 to 2018 total ODA disbursements reported to the Organisation for Economic Co-operation and Development (OECD) has grown in real terms from US\$130 billion to US\$188 billion. This has seen funding to water and sanitation increase from US\$5.1 billion to US\$7.4 billion.²² However, the proportion of total ODA to water and sanitation has remained consistent at around 4%, with other related sectors seeing little change or declines since 2012 (see Figure 13 below). Conversely funding to refugee hosting costs has grown from 2.4% to 5.5% and humanitarian assistance (which may have WASH components, see latter discussion) has grown from 8.5% to 15.8% of total ODA. This signals a growing emphasis of donors in allocating aid to deal with conflicts that have global geo-political significance.

Figure 13 - ODA to water and sanitation as a percent of total ODA compared to related sectors



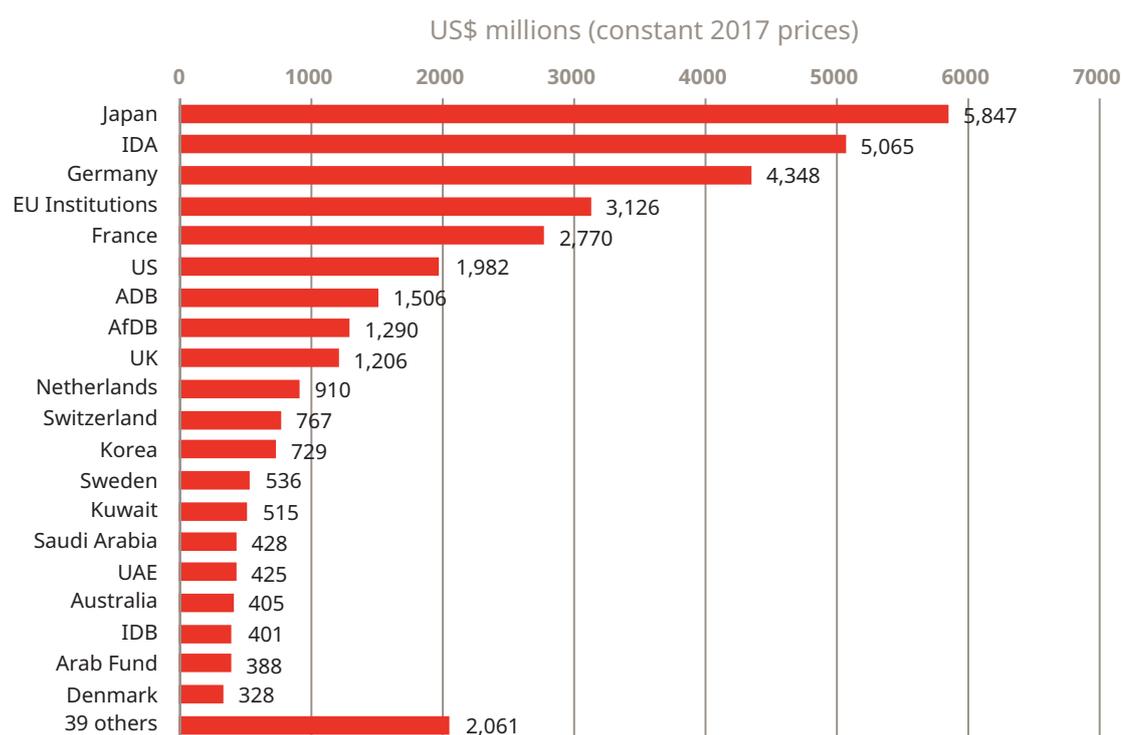
Source: OECD Credit Reporting System (CRS).

US\$bn (Constant 2017 prices)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total ODA	130.1	139.1	140.3	137.4	153.5	152.0	171.1	185.1	192.1	188.4

ODA disbursements since 2014 have principally (over 75%) been channelled through public sector institutions (e.g. recipient governments), with both bilateral (the Governments of Japan, Germany, France and US) and multilateral (Multilateral Development Banks) key donors to total water and sanitation funding (see Figure 14). In addition, the majority of ODA is disbursed in loan form, which has increased over time to 62% of the total, a proportion that is second only to the infrastructure sector and is much higher than related sectors of environment, health and humanitarian assistance (Figure 15). A related issue is borrowing by utilities in bond markets. This is a route often favoured by the International Financial Institutions (IFIs) for project finance.

These are concerning trends for two reasons. First, WASH systems, particularly in rural areas or in the poorest countries in the world, may not have a clear return on investment to make them viable. This means that even concessional loans for these projects may not be the appropriate modality of financing. Second, recipient governments themselves may have challenges with debt sustainability. Specific projects which are viable for loan financing can still increase the debt burden of governments overall. This impacts on the fiscal space available to increase investment in WASH (see previous discussion above), a situation that is further compounded by the COVID-19 pandemic (see Section 3 for further discussion on this).

Figure 14 - ODA to water and sanitation by donor (2014 to 2018 total) ²³

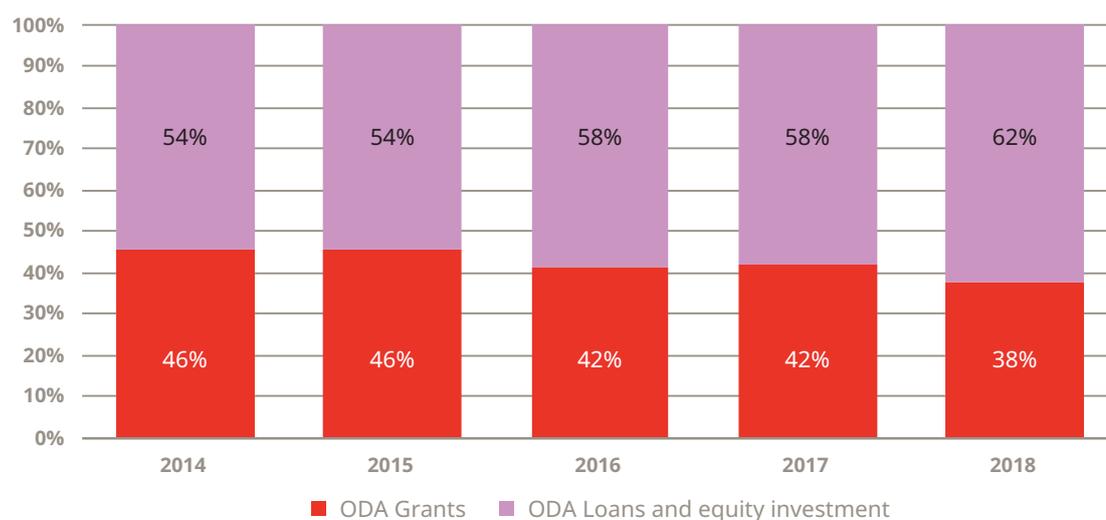


Source: OECD credit reporting system.

For example, within the top 50 recipients of ODA loans to water and sanitation in 2017 were Mozambique and Sudan, both of which were classified by the IMF and World Bank as in debt distress. Five other countries were classified as being at high risk of debt distress and a further six at moderate risk. In addition, there were other countries where debt levels were classified as unsustainable (Lebanon) or sustainable but vulnerable to shocks (such as Angola, Jordan, Nigeria and Sri Lanka). Therefore, it is critical that donors assess the viability of projects and the debt burden of governments when deciding to support the WASH sector through loans. This is even more important given the economic shock that COVID-19 has had on all countries around the world and the key role the WASH sector as a policy response to the crisis. The impact of COVID-19 and high levels of borrowing led to a default by Zambia in November 2020 on government debt owed to private creditors.²⁴



Figure 15 - ODA to water and sanitation: grants vs. loans or equity and comparison with other sectors (% of totals)



Source: OECD credit reporting system.

(% of sector total ODA by modality, 2018)	ODA Grants 2014	ODA Grants 2018	ODA loans and equity investments % 2014	ODA loans and equity investments % 2018
Agriculture & food security	75%	72%	25%	28%
Environment	81%	83%	19%	17%
Health	94%	92%	6%	8%
Humanitarian	97%	97%	3%	3%
Infrastructure	28%	24%	72%	76%
Water & sanitation	46%	38%	54%	62%

Regarding the recipient countries of water and sanitation ODA, over the last 5 years funding to 20 countries (only 4 of which are LICs) has made up over half of total funding.



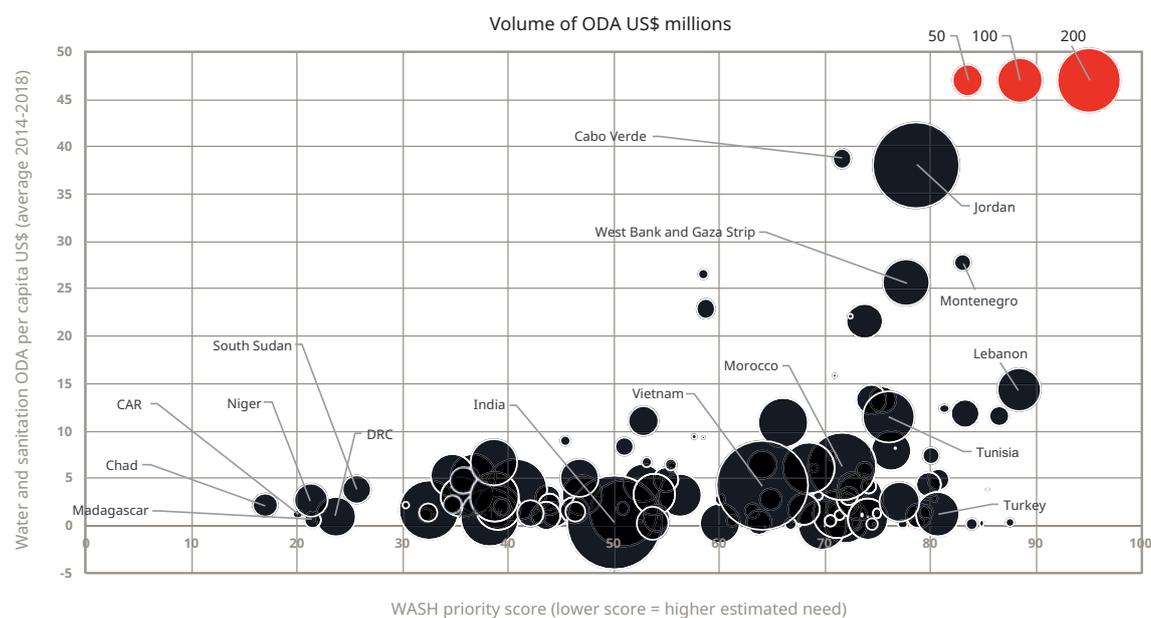
▼ Low ODA volumes and poor targeting mean that countries like Madagascar receive minimal aid per person. Girls' toilet block, primary school, Tsiroanomandidy district, Madagascar, 2018.

WaterAid/ Ernest Randriarimalala

Figure 16 highlights some of the major recipients in terms of total volume and in per capita terms, alongside an index calculating each country according to its perceived need for international public finance. Needs indicators include current WASH access, risk from climate change impacts as well as factors covering ability to mobilise wider financing, such as income category and capacity for Domestic Revenue Mobilisation (DRM).²⁵ Overall, ODA per capita is under US\$5 for many countries and at these levels unlikely to make significant difference in ending water and sanitation poverty. It is also apparent that ODA to water and sanitation is often not targeted in line with need. Many of the recipients are LMICs or UMICs, with per capita funding highest in countries with a less perceived need such as Cabo Verde, Jordan and Montenegro. There may be several factors why this picture runs counter to what might be expected. First, in some of the highest need countries, their instability may make it difficult to deliver water and sanitation ODA at volume. Aspects of support for the WASH sector may also be included within humanitarian assistance. Second, the high proportion of loans in water and sanitation ODA may mean that it is LMICs and UMICs which are able to take on debt in this way and plan and develop projects that show a clear return on investment and economic viability. Third, there may also be other factors involved for these allocations, including donor priorities based on historical links or strategic foreign policy or trade objectives.



Figure 16 - ODA to water and sanitation by recipient country WASH priority score (US\$, annual average 2014-18)



Source: OECD CRS, World Bank, World Bank PovcalNet, University of Notre Dame Global Adaptation Index (ND-GAIN), International Monetary Fund (IMF) World Economic Outlook database and IMF Article IV Staff and programme review reports (various), Global Burden of Disease Collaborative Network, the WHO/UNICEF Joint Monitoring Programme (JMP) database.

Notes: countries in the chart are all those listed by the OECD as developing countries.

National politics can also be an amplifying factor—the poorest countries have high need across several social areas, including health, education and social protection, and these competing social needs may also lead to de-prioritisation of water and sanitation.

As outlined above, some of the highest priority countries may receive elements of WASH ODA through humanitarian assistance. Although the OECD does not disaggregate funding within this sector, the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) Financial Tracking System (FTS) reported US\$866 million in humanitarian assistance in 2018 which was relevant to WASH. This is potentially unreported within the OECD database. In total it would represent an additional 12% of total international public finance to the WASH sector. In addition, there may also be WASH funding captured within other sectors such as health or education (e.g. for hygiene programmes) or reported as multi-sector projects. Therefore, to understand the full extent of international public investment in WASH, there is a need for improved reporting by development partners (see Box 6).

Box 6 - Improving the quality of ODA reporting

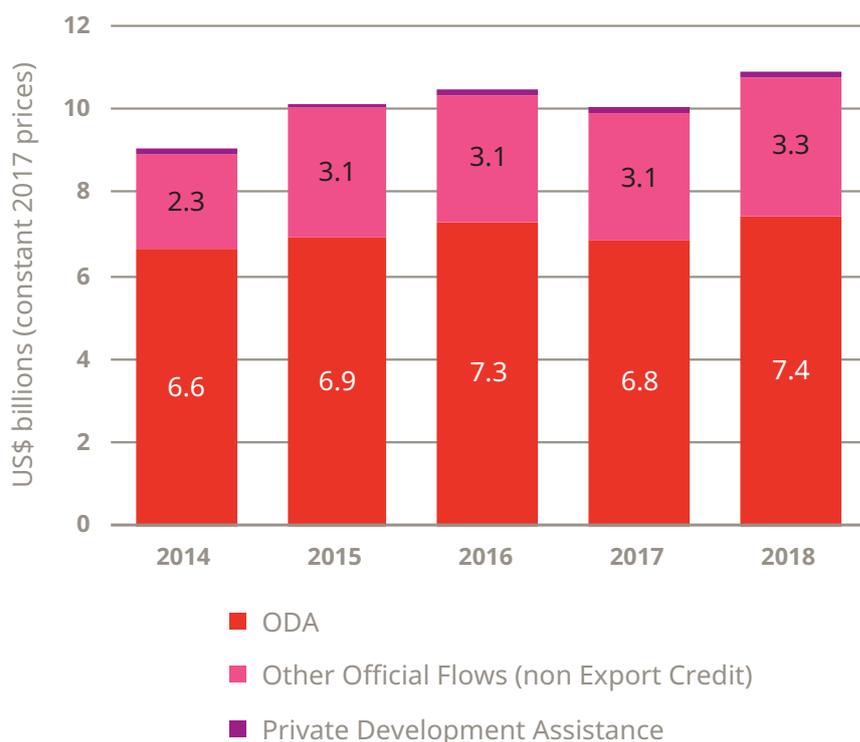
The WASH sector has clear linkages to wider areas. For example, hygiene education is linked to both the health and education sectors. Drinking water supply may also be linked to energy generation (e.g. dams) and agriculture (e.g. irrigation) and sanitation is related to the environment sector. This means that international development projects could encompass a range of sectors, including WASH. This adds to the complexity of ODA reporting and the difficulties of achieving an accurate assessment of ODA allocated for WASH activities. The issue is highlighted in the following examples:

- In 2018 Germany reported a project to the OECD called 'Access to safe drinking water and sanitation as well as prevention and aftercare of gender-based violence in South Sudan'. This was reported under the humanitarian sector.
- In 2018 Iceland reported a project to the OECD called 'Development Partnership-WASH Development in Fishing Communities in Uganda'. This was reported under multisector aid for basic social services.
- In 2018 Germany reported a project to the OECD called 'Food security and WASH-Assistance for the vulnerable conflict affected population in Papua'. This was reported under the water and sanitation sector.

These examples show how funding for WASH currently counted could both be an underestimate and overestimate in some cases. It is therefore important that donors improve their reporting within the current reporting frameworks as well as seeking ways to strengthen the frameworks themselves. Both the OECD Credit Reporting System (CRS) and the International Aid Transparency Initiative (IATI) allow for project reporting to be split into different project activities or for a single project to be defined by multiple sectoral codes. Donors therefore need to increase the quality of their reporting to enable a better understanding of the financing landscape. In addition, ODA reporting standards could be improved. Sub-sector classifications within humanitarian assistance and multi-sector aid could give a more accurate picture of potential WASH funding. Similarly, ODA for hygiene reported in the health or education sectors might also be relevant when assessing total ODA to WASH.

There are also significant international public resource flows to water and sanitation through Other Official Flows (OOFs). These are disbursements which do not meet the criteria for ODA, either because the grant element of funding is less than 25% or the financing has a commercial purpose. Since 2015 OOFs have made up around a third of official international public assistance to water and sanitation (see Figure 17). This financing is primarily targeted at higher income countries, with two thirds going to UMICs in 2018 and almost all the rest going to LMICs with significant economies (e.g. Egypt and India).²⁶

Figure 17 - ODA, Other Official Flows, and Private Development Assistance flows to water and sanitation (total US\$ billions from 2014-18) ²⁷



Source: OECD CRS

Notes: Private development assistance refers to activities in support of development from philanthropic foundations.

Alongside providers of ODA and OOFs who report to the OECD, there are others that do not. One such example is China. Estimates from the research organisation AidData (2017) suggested that China provided a total of US\$4.5 billion in official financial support for water and sanitation in developing countries between 2009 and 2014 (2014 prices).²⁸ Three countries, Bangladesh, Cameroon and Zimbabwe received 62% of this financial support. This shows that as well as being recipients of international public financing, countries like China can also be major financiers themselves. It highlights the fact that more needs to be done to understand these types of financial flows, which are not necessarily reported globally in a systematic way.²⁹



3.3 Private and household financing sources

In addition to public financing to WASH, private financing, including from households, plays an important role in funding the sector. Although quantifying the exact amounts of private financing is very challenging, this section aims to draw on some of the latest data and case studies to highlight trends in this area.

Private finance

International private finance to the WASH sector can take several forms. As indicated by Figure 17 above, philanthropic giving reported to the OECD has grown in real terms from US\$90 million in 2014 to US\$125 million in 2018, although this is mainly due to an increased number of foundations and trusts reporting. Principal among these foundations in 2018 was the Bill & Melinda Gates Foundation (BMGF). The BMGF disbursed US\$75.7 million to 33 different recipients, with India being the largest with about a third of the total. There are also other foundations which do not report regularly to the OECD but are important funders to the WASH sector. These include the Stone Family Foundation and the Coca Cola Foundation (TCCF). TCCF contributed US\$59 million to the sector between 2013 and 2015.³⁰ In addition, the rise of Corporate Social Responsibility (CSR) programmes in many multinational companies is adding to the amount of philanthropic investments. Examples are Procter & Gamble's Children's Safe Drinking Water Program and Nestle's Caring for Water (C4W) initiative. In addition to international philanthropy, there is increasing domestic philanthropic funding through CSR. Examples include Fidelity Bank in Nigeria³¹ and Clause 135 of the Companies Act in India, which mandates companies of a certain size to spend a minimum amount on CSR activities.³²

Alongside philanthropic private investments in WASH, commercial private investments are also being made. Although the exact scale is not known, evidence suggests it is not of the same scale of public financing, particularly in LICs and LMICs. These relatively low levels of private investment underscore the critical need to mobilise the much higher levels of public investment and ODA discussed in Sections 5 and 6 below.

For example, OECD data on private sector investment mobilised by international public finance shows that since 2014 real term funding has averaged US\$224 million, which primarily went to China and Ukraine (see Figure 18). However, updated provisional information has shown that the average between 2017 and 2018 was US\$900 million, which would suggest a significant scale up of US\$1.45 billion.³³ Despite this, the increased average investment in 2017 and 2018 made up only 2.1% of the total recorded private investment mobilised by international public development finance.

Figure 18 - Water and sanitation financing mobilised from the private sector by official development finance interventions (2014-17)

(US\$ millions, 2017 constant prices)	2014	2015	2016	2017
China (People's Republic of)	75%	72%	25%	28%
Ukraine	81%	83%	19%	17%
Others	94%	92%	6%	8%
Health	284.2	42.8	213.9	354.7

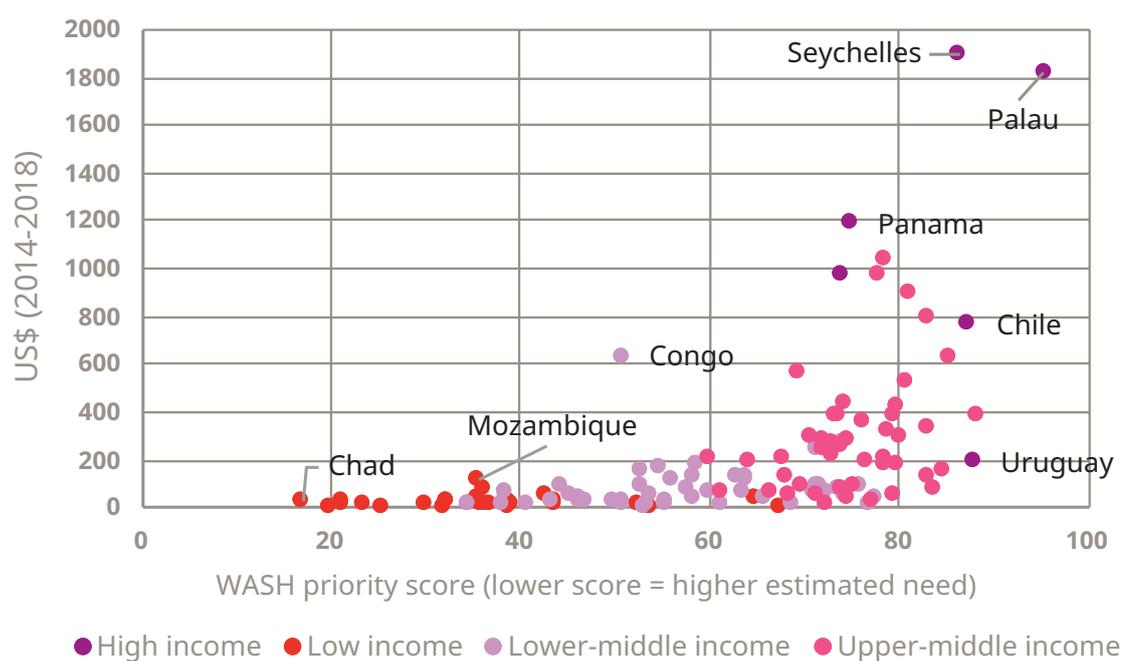
Source: OECD.

Recent studies by WaterAid in Ethiopia, Nigeria and Pakistan have also shown limited or no record of Foreign Direct Investment (FDI) in the WASH sector. Furthermore, a review of total FDI flows from 2014-18 in per capita terms (see Figure 19) shows that in countries where the need for wider financing to support WASH is high, investment inflows of FDI for all sectors are extremely low.

Alongside direct private investment in WASH, governments are increasingly looking at opportunities to stimulate investment through public private partnerships (PPPs). However, unlike in other sectors such as energy, there are few PPPs established beyond proof of concept supported by the World Bank. In Pakistan, however, where there is a more established framework for PPPs, the government of Punjab has a project in the pipeline to construct a wastewater treatment plant in the north-east of Lahore.³⁴ PPPs remain politically sensitive, however, amid concerns, particularly from civil society organisations, of affordability, value for money and ownership.

A recent study by the OECD has highlighted several reasons why private investment in WASH continues to be low. It cites challenges with the enabling environment (including governance, transparency and weak regulatory frameworks), low credit worthiness of water utilities or governments and a lack of clear return on investment for projects and programmes.³⁵

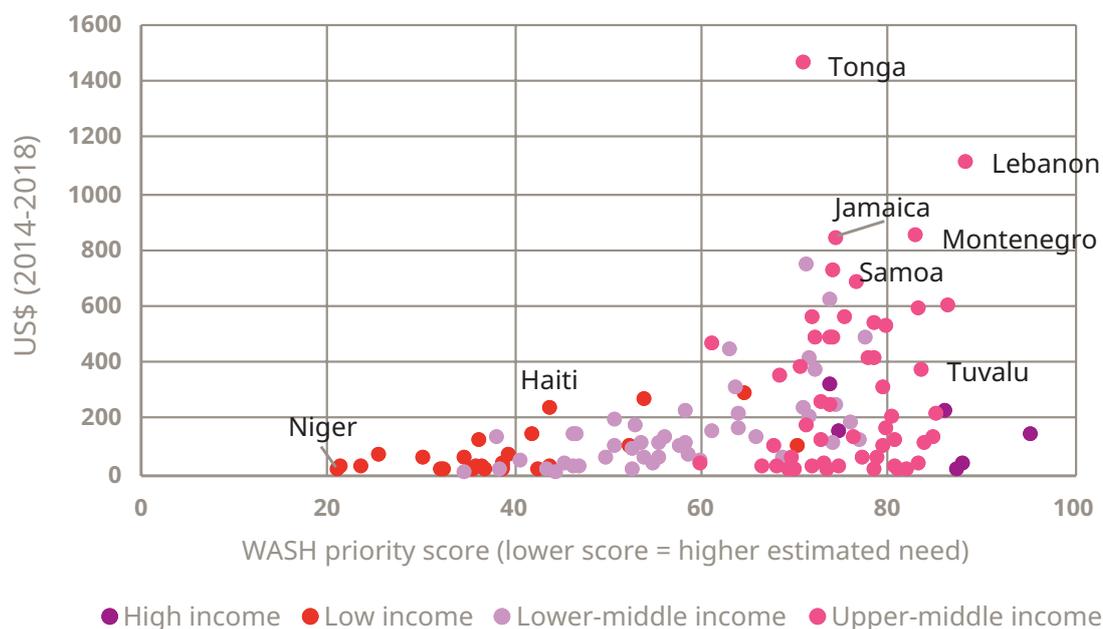
Figure 19 - FDI by recipient country WASH priority score (total for 2014-18 in US\$ per capita)



Source: UNCTAD FDI statistics.

Notes: Countries in the chart are all those listed by the OECD as developing countries.

Figure 20 - Remittances by recipient country WASH priority score
(total for 2014-18 in US\$ per capita)



Source: World Bank Migration and Remittances data.

Notes: Countries in the chart are all those listed by the OECD as developing countries.

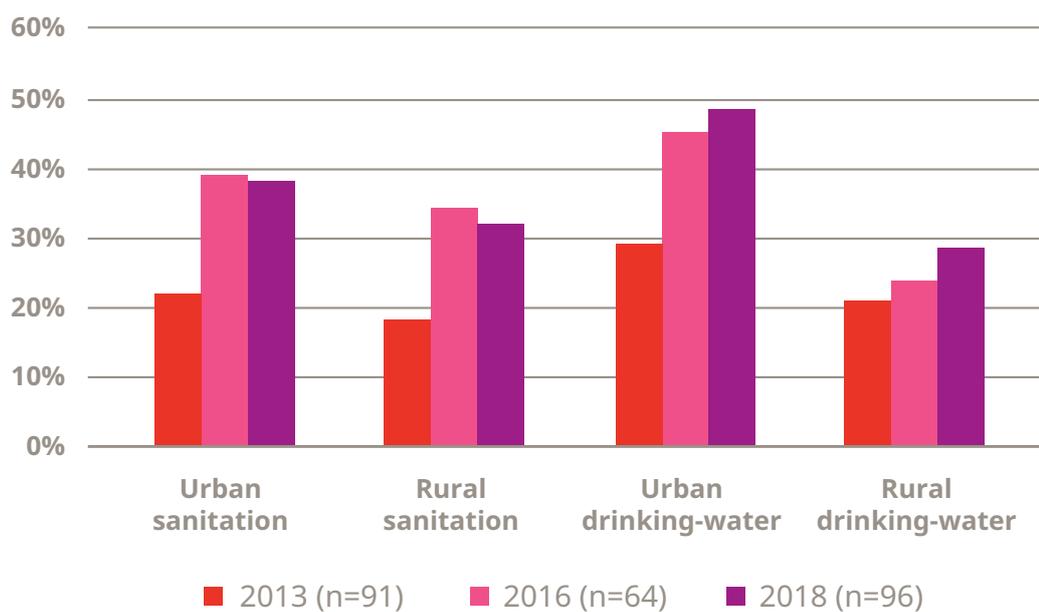
Remittances have seen substantial growth over time and can also play an important role in supporting household investments in WASH. In Pakistan for example, remittances grew in nominal terms from US\$1.1 billion in 2000/01 to US\$20 billion in 2017/18. In households receiving remittances, total expenditure on WASH can be 50% greater overall, with spending on utilities identified as 35% higher. However, as with FDI a significant proportion of this resource flow is to countries where there is the need for wider WASH financing (see Figure 20) is relatively lower. In addition, evidence from Nigeria suggests that while the remittances play a key role in household income, typically the poorest households are less likely to receive them.

Household expenditure on WASH

For many countries household finance is the largest source of finance for the WASH sector. Based on survey data from 35 developing countries the 2019 GLAAS report shows that households provided two thirds of total funding. Household expenditure in developing countries is a key source of funding for O&M as well as for capital investment within the home (e.g. sanitation and hand washing facilities). To this end, many developing country governments expect and plan on the basis that household contributions will be enough to recover costs for the O&M. Governments also expect households to support investment costs, particularly in urban settings. Nevertheless, the share of household budgets spent on WASH in LICs and LMICs can represent a major burden and stress, with much higher ratios of expenditure required compared with households in higher income economies.

The GLAAS report highlights that there has been progress towards larger amounts of cost recovery since 2013 (see Figure 21). However, if the intention of developing country governments is to recover all O&M costs from households, business and industry through tariffs, this objective remains far off track. Some of the key challenges behind this are the ability of customers to pay for services at cost, particularly poor people and communities in rural areas, as well as the significant rates of non-revenue water (NRW) for utilities and service providers. The GLAAS report shows that 26 of the 57 responding countries estimated that NRW was above 40% for their three largest water providers.

Figure 21 - Percentage of countries indicating that more than 80% of O&M costs are covered by tariffs



Source: GLAAS 2019 report.

In addition, a significant challenge in incentivising low-income households to invest in water and sanitation infrastructure is the issue of affordability and the necessity to pay upfront costs. One of the ways potentially to address this is by improving access to savings and credit. However, there are substantial differences in the levels of financial inclusion in LICs and LMICS compared to the rest of the world (see for example relevant IMF and World Bank analysis).³⁶

Innovative finance models can bridge some of these gaps. The World Bank has adopted a blended finance approach in Bangladesh aimed at supporting microfinance institutions to develop sanitation products for poor communities.³⁷ USAID has supported a development impact bond (DIB) in Cambodia. Launched in 2019 the DIB aims to eradicate the high rates of open defecation in Cambodia and accelerate the government's efforts to reach universal sanitation and eliminate open defecation by 2025.³⁸

4. Climate finance landscape



4.1 Tracking climate finance

For several reasons tracking progress on climate finance is an important complementary analysis to traditional funding sources for WASH. First, climate change and the risks it poses are indelibly linked to attaining SDG 6. For example, a failure to keep the increase in temperatures below the 1.5° Celsius target will intensify the extreme weather events and other impacts already being experienced. Water is one of the principal transmission mechanisms of climate change, with impacts including more severe drought, flooding events, saline intrusion and sea-level rise. Within this context, there needs to be significant improvement globally in the management of finite fresh water resources, including through more sustainable agricultural and industrial practices and economic development. The transition to a low-carbon economy and widespread uptake of renewable energy production will also be critical for the water sector, enabling the necessary sustainable supply of electricity either on grid or off grid for reliable water access. Second, and this differs in many ways from the water sector, climate finance involves an array of diverse financing mechanisms and private sector involvement. The lessons from this could potentially offer opportunities for greater investment within the WASH sector. Therefore, the next section provides an overview of recent developments in climate financing, with reference to how this relates currently or potentially in the future to the WASH sector.

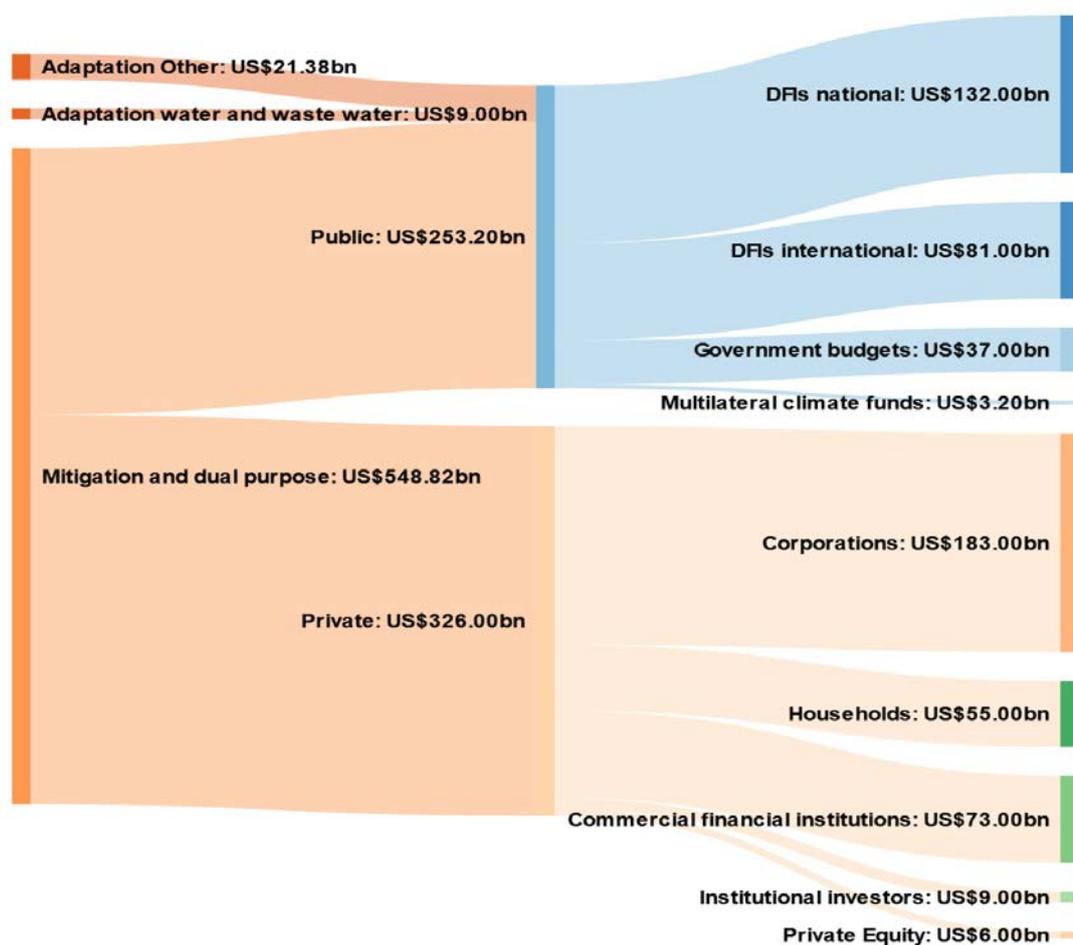
4.2 Overview of current climate financing landscape vs. needs

Unlike specific investments in WASH, overall climate financing flows have increased significantly over time, climbing from an estimated US\$342 billion in 2013 to US\$546 billion in 2018.³⁹ An average of the disbursements in 2017 and 2018 (US\$579 billion) shows that 56% was financed by private actors, with 93% of all flows targeted towards mitigation of climate change as opposed to adaptation (see Figure 22).⁴⁰ Water and wastewater accounted for US\$13 billion of total flows. This was principally focused on adaptation, with international public climate finance disbursements to water and sanitation reported to the OECD in 2018 of US\$2.7 billion.

While there has been an increase in funding, the amounts reported are still significantly below what is thought to be required globally to transition to a low-carbon economy: between US\$1.6 trillion and US\$3.8 trillion per year. Funding for adaptation is also well below estimated annual adaptation costs of US\$180 billion. There is also evidence that the spread of climate financing globally is not even, with significant challenges faced by the poorest countries in securing funding. As shown in Figure 23, 76% of all funding remains within the country of origin, and although almost two-thirds of the total is raised and spent domestically in developing countries, this is principally accounted for by China and does not reflect a global pattern.

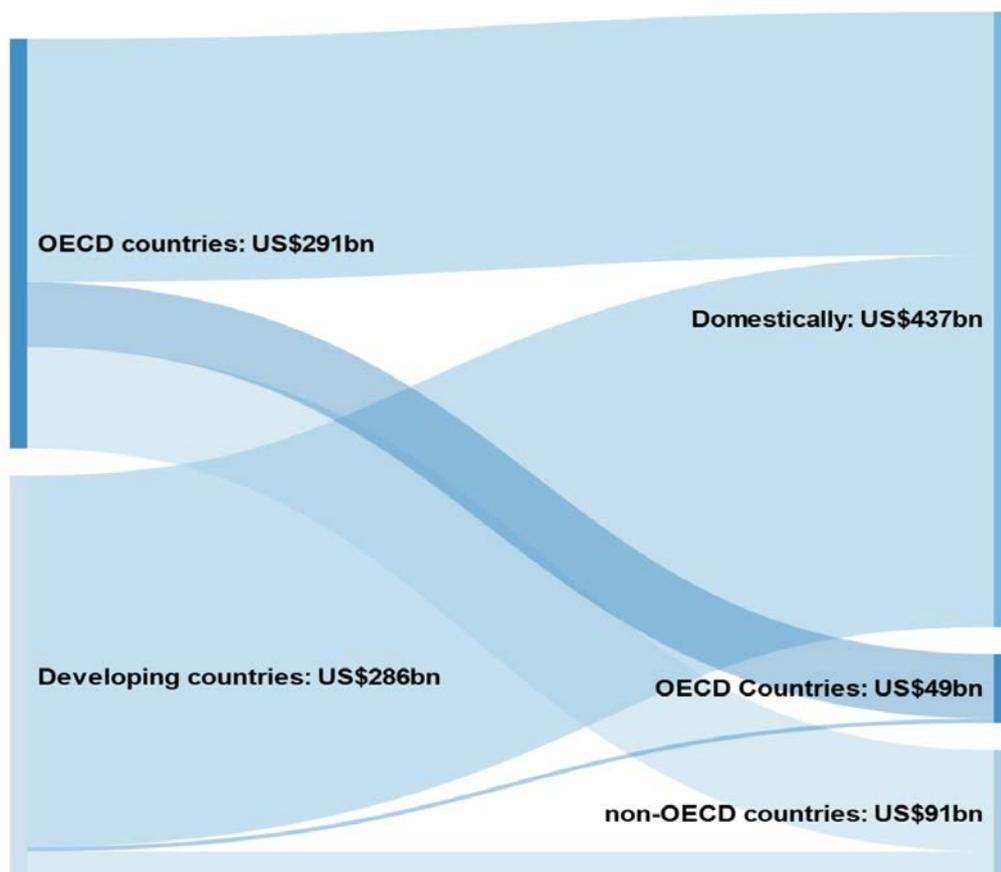
Consideration of climate finance by region shows that Sub-Saharan Africa and South Asia make up only a very small proportion: 3% and 5% of the total respectively. In addition, the most common modality for climate finance (66% of the total) in 2017/18 was in the form of debt, principally through market-rate or non-concessional lending. This means that even if the financing available could be disbursed outside of the country of origin, there is limited possibility for LICs and LMICs to access funding, particularly where governments (national or subnational) have a low credit rating or are in or at risk of debt distress.

Figure 22 - Average climate finance flows in 2017 and 2018, by function and source of financing



Source: Development Initiatives based on the Global Landscape of Climate Finance 2019, Climate Policy Initiative (CPI).

Figure 23 - Average climate finance flows in 2017 and 2018 by source and destination (US\$ billion)



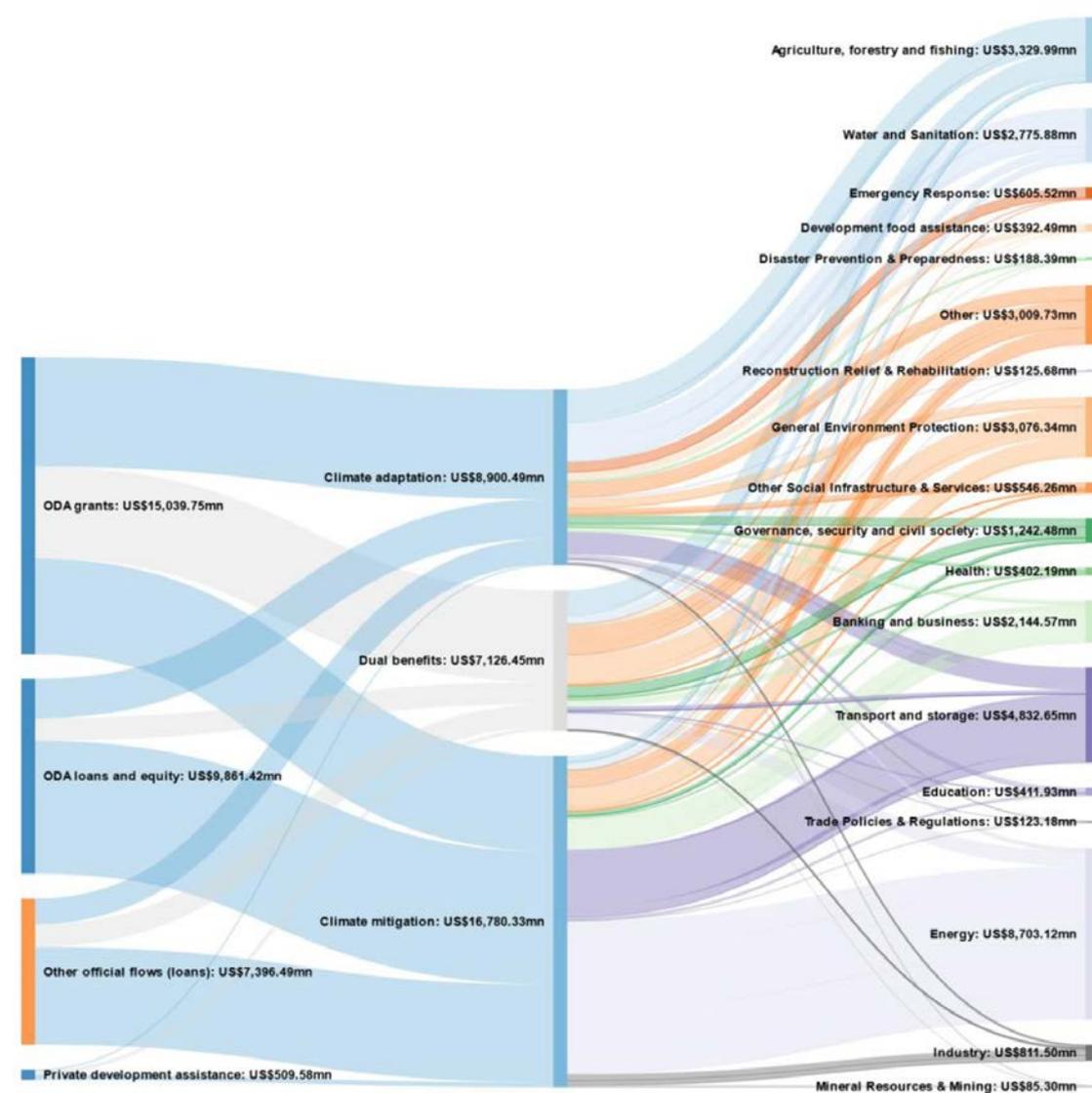
Source: Development Initiatives based on Global Landscape of Climate Finance 2019 and CPI.

4.3 The Copenhagen Accord

Alongside the overall climate financing landscape and gap, 2020 marked the year in which developed countries should have met their commitment to mobilise US\$100 billion of climate finance each year for developing countries. This was agreed as part of the United Nations Framework Convention on Climate Change (UNFCCC) 2009 Conference of the Parties (COP) in Copenhagen.⁴¹ Figure 23 indicates that US\$72 billion was provided by OECD countries to developing countries as a 2017/18 annual average. Although the Climate Policy Initiative (CPI) do not consider their data as a definitive source for measuring progress against the US\$100 billion, this suggests that developed countries are significantly below what is needed to meet the commitment made in Copenhagen and at subsequent COPs. Furthermore, considering that international public financing should constitute a significant proportion of the US\$100 billion, public finance disbursements in 2018 reported to the OECD of US\$32 billion (see Figure 24) suggest that governments in HICs are a long way from meeting their mark. Disbursements in 2018 showed only a slight increase over those in 2017: an increase of US\$2.5 billion in real terms.

The Copenhagen Accord also calls for the US\$100 billion commitment to be focused on countries which are most vulnerable to climate change: Least Developed Countries (LDCs), Sub-Saharan African countries and Small Island Developing States (SIDS). However, 23% (US\$7.2 billion) of international public financing in 2018 was through OOFs, which as for WASH-specific flows shown previously, were predominantly disbursed to UMICs (such as China and Turkey) and large economies within LMICs (such as India, Indonesia and Pakistan) with a strong focus on mitigation within the energy sector. In addition, US\$4.3 billion of ODA grants was marked as “bilateral unspecified” in 2018, including the United Kingdom’s (UK) Government’s US\$661 million equity investment in its Development Finance Institution (DFI), the CDC.⁴²

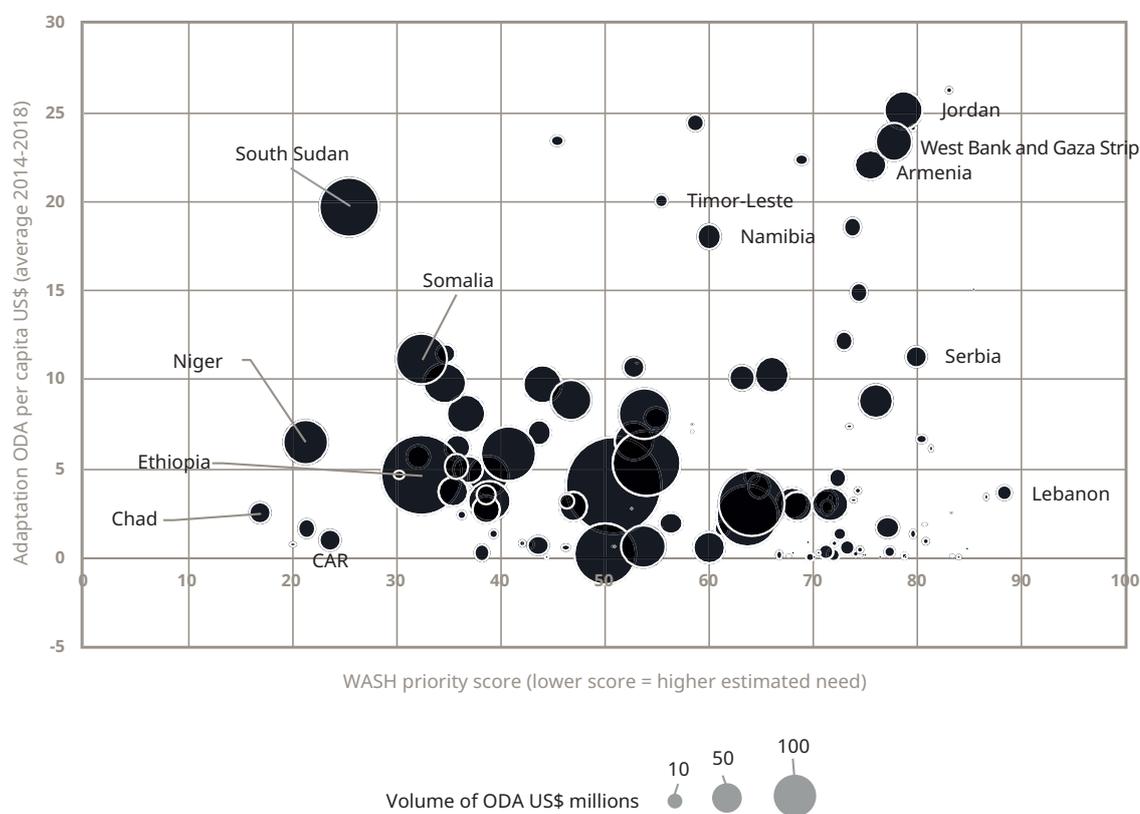
Figure 24 - International public financing for climate purpose in 2018 (US\$ millions)



Source: Development Initiatives based on Global Landscape of Climate Finance 2019 and CPI.

However, while a third of international public financing is perhaps not well targeted according to the commitment to channel support to the most vulnerable countries, ODA that is country programmable is better targeted at those in need. This is shown by Figure 25, which plots those countries in most need of international public financing from a WASH perspective, including factors such as climate vulnerability and low domestic revenue mobilisation. This underscores that as developed country governments strive to meet the US\$100 billion annual commitment, there is a need to ensure that funding is channelled directly to those in most need, with ODA grants or highly concessional loans a necessity, particularly in light of the COVID-19 pandemic and the constrained fiscal positions developing country governments find themselves in (see Section 3).⁴³

Figure 25 - ODA for climate purpose, by recipient country WASH priority score (total US\$ millions from 2014-18)



Source: OECD CRS

Notes: Countries in the chart are all those listed by the OECD as developing countries



4.4 Accessing climate finance

Combined with the need to scale up the supply side of climate financing in the appropriate modalities to support the poorest and most vulnerable countries in the world, there is also increasing focus on the demand side, such as the logistical and capacity challenges faced by developing country governments to access climate finance. For example, a survey for Africa Climate week 2019 found that over half of government have had difficulty accessing funding.⁴⁴ There are several reasons why this is the case. First, access is contingent on having and updating Nationally Determined Contribution (NDC) plans and National Action Plans (NAP). Their formulation requires significant investment in staff time and funding. In addition, gaining accreditation from funds has been challenging for both state and non-state actors, given the complexity in the requirements and the fees to apply.⁴⁵ Lastly once accreditation has been approved, there is the capacity and resource challenge to develop fundable projects which meet the set criteria. This process has been a challenge for far too long. It has slowed the flow of finance, and discouraged countries with lower capacity to engage with the complexity.

However, it is hoped that these barriers can be overcome, with an increased emphasis on support and funding for the preparation of projects, through channels such as the Green Climate Fund's readiness programme or potentially through new initiatives (see Box 7).

Box 7 - Support for project preparation to access to climate finance

WaterAid's 2020 Water and Climate Summit brought together developing country governments and international agencies responsible for disbursing climate finance to share their insights and challenges. It identified several barriers and impasses. Some developing country governments highlighted the fact that they had developed costed WASH plans and were seeking financing, but they were not aware of their potential eligibility for climate funds. If they were aware of the opportunities, they did not necessarily have the resources (human and financial) to be able to apply successfully for them. From a funder's perspective, although they wanted to work with developing countries, and increasingly with LICs, challenges faced included projects submitted not being technically fundable or projects where there was no clear return on investment. To try and find solutions to unlock this impasse an expert group was established at the summit with actors from the private and public sectors. The Resilient Water Accelerator seeks to address some of the project preparation and capacity needs of developing countries as they seek to attract climate finance into the water and WASH sectors. It aims to learn from best practice examples such as in South Africa, where the national Ministry of Finance provides specific funding and expertise to municipalities in support of their infrastructure planning and development. This includes WASH services. <https://www.devex.com/news/new-coalition-plans-to-unlock-climate-finance-for-water-services-96732>

Despite the fact that many developing countries are struggling to access climate finance, some governments such as the Nigerian government have successfully accessed innovative financing mechanisms such as green bonds to support the mobilisation of resources for WASH relevant areas (see Box 8).

Box 8 - Green Bonds in Nigeria

The Federal Government has recently started to explore the use of **green and climate bonds** to help finance renewable energy, water resources and agriculture. They have established a Green Bond framework, where the Federal Ministry of Environment provides details (their own or from other Ministries) of potential projects that are linked to the National Development Plan and which have green credentials. These projects are then assessed for their alignment to the Green Bond Guidelines, with the Ministry of Finance then considering them as part of their annual domestic borrowing program.

This framework led to the Federal Government successfully issuing green bonds in 2018 valued at US\$30 million, with the proceeds funding solar energy projects in several Universities, and a further issuance in 2019 of US\$46 million. Whilst the levels are small in regard to the funding needs in Nigeria, they form a key source of additional finance for the Federal Government. This could become a replicable model for other countries, although there may be barriers in regard to credit worthiness and debt sustainability for the poorest and most vulnerable countries.

While this demonstrates that developing countries can access these forms of finance, it also shows how climate finance can potentially add to already high levels of external debt. Lending on the basis of an economy heavily dependent on oil and gas also runs a high risk of locking that country into the need for continued medium- to long-term fossil fuel production and export. The international community should be clear that private climate finance cannot substitute for the need for much higher levels of public climate finance provided in the form of grants.

▼ Solar farm, Morocco. Renewable energy has vast potential in Africa, but climate finance needs to increase significantly from current levels.



Jenson, Shutterstock

5: Financing trends and opportunities

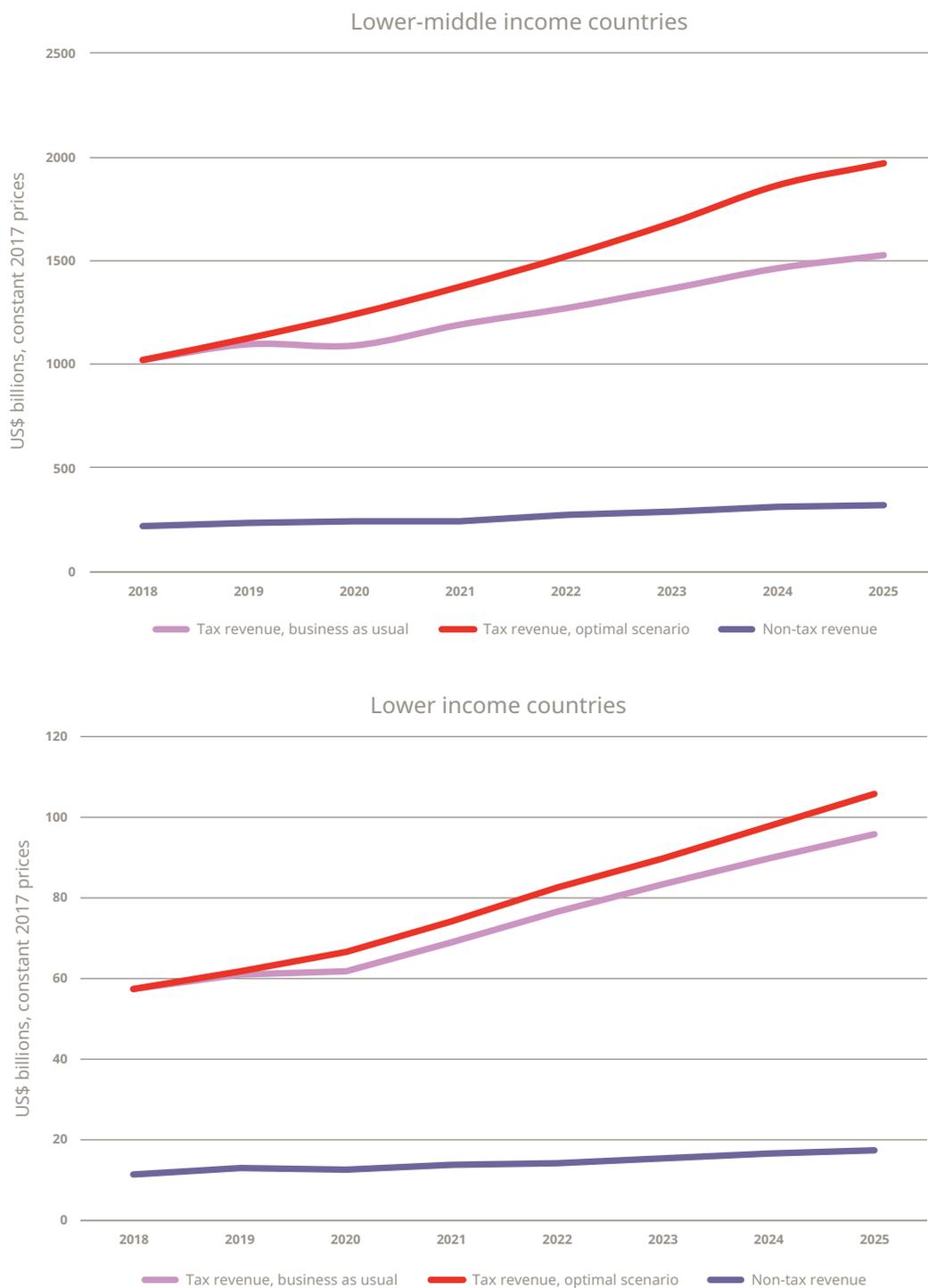


The previous section highlighted both the significant investment required globally to reach universal access and the large gap in financing, particularly for LICs and LMICs. A “business-as-usual” approach will not be enough to achieve SDG 6 targets and attain zero carbon economies to avoid a water and climate crisis. However, what is less clear is what a business-as-usual scenario and a best-case scenario might be for public financing and whether even this will be enough to meet funding requirements. This section aims to detail the future landscape of domestic and international public financing and review opportunities for other forms of finance to bridge the financing gap. The focus is on LICs and LMICs as these are the country groups where the gaps are largest and where wider non-concessional lending is unlikely to be scaled up or suitable for WASH sector investments in the medium-term.

5.1 Domestic public resources

Section Two outlined the link between the scale of governments’ domestic revenue generation and their investment in key sectors like WASH. This correlation means that understanding medium-term trends on DRM can provide insights into their capacity to scale up domestic public WASH investments. Figure 26 below displays estimates for a business-as-usual scenario for LICs and LMICs up to 2025. Although proportionally LICs’ domestic public resources are projected to double compared to the one third increase in LMICs, overall volumes of increase in LMICs are substantially higher (US\$1.5 trillion compared to US\$96 billion in LICs). In addition, LMICs have greater potential to increase tax collection, which if maximised would lead to a cumulative increase of US\$1.8 trillion of domestic public resources by 2025.⁴⁶ Conversely, Figure 26 shows that LIC governments have much less potential to increase taxation potential beyond the business-as-usual scenario, given economies are smaller and less formalised and often facing fragility, socio-political or environment issues (see the case of Somalia in Box 9). Therefore, although overall there is a positive projected medium-term outlook for domestic public resources through a combination of economic growth and governments’ increased DRM efforts (potentially supported by donors, see Box 10), the pattern is not uniform. Some countries, especially LICs, will face constraints in increasing domestic public resources, meaning that other resources, such as ODA, will need to play a greater role in financing universal WASH access.

Figure 26 - Tax and non-tax projections to 2025 in LICs and LMICs, comparing scenarios for business-as-usual and maximising taxation potential



Source: IMF article IV staff reports. Tax potential estimates taken from several different sources.

Although Figure 26 provides consolidated non-grant revenue projections for LICs and LMICs, there is considerable uncertainty due to the COVID-19 pandemic. Figure 27 highlights the difference in revenue projections between April and June 2020, with those in April predicting a fall in 2020 and a recovery in 2021, whilst those in June are projecting a continued reduction in 2021 and 2022. However, the longer-term outlook to 2025 remains the same as pre-COVID projections, with a significant bounce back in economic activity forecast. Despite this positive outlook longer term, LICs and LMICs are facing significant constraints on fiscal space in 2021 to increase expenditure not only to tackle health-related COVID-19 needs, but also to increase wider investment in WASH. For example, the IMF has estimated a fall in revenue in sub-Saharan Africa of US\$70 billion in 2020, with spending reduced by US\$30 billion as other financing covered the shortfall (e.g. grants, loans, and debt issuance). However, the reliance on new borrowing is likely to increase debt burdens and reduce fiscal space over the longer-term (see Nigeria case study in Box 9).

Figure 27 - Projections of COVID-19 on non-grant government revenues

(% change)	Pre- vs post-COVID 2020 non-grant revenue projections	Pre- vs post-COVID 2021 non-grant revenue projections	Pre- vs post-COVID 2022 non-grant revenue projections	Average 2020-22
June				
Liberia	-15%	-19%	-8%	-14%
Rwanda	-4%	-15%	-20%	-13%
Sierra Leone	-17%	-15%	-14%	-15%
April				
Central African Republic	-17%	-4%	-4%	-8%
Côte d'Ivoire	-10%	-5%	-6%	-7%
Ethiopia	-9%	-5%	-4%	-6%

Source: IMF article IV staff reports.

Notes: Rwanda has a July to June fiscal years, therefore the year 2020 corresponds to July 2019 to June 2020, meaning the difference between pre- and post-COVID-19 is less.

Box 9 - Challenges for domestic public resources in Somalia and Covid-19 impacts on revenue mobilisation in Nigeria

In Somalia the revenue base is very narrow, with a high dependence on port duties. This applies to the Federal (Mogadishu port), Somaliland (Berbera port) and Puntland (Bosasso port) governments. Other newly-formed State governments like Galmudug, Jubaland and South West which do not have established major ports are facing even greater challenges in raising revenue. With a focus of current state government spending on administration and security, it will be essential to increase domestic revenue mobilisation to free up fiscal space to enable further investment on WASH. Some progress has been made in this regard, with the Federal Government reporting a 30% rise in non-grant revenue in 2018 compared to 2017. This involved plans to develop fiscal federalism structures through a fishery- and petroleum-revenue sharing framework. However, given the fragile context of Somalia, in the medium term external support in financing for WASH is likely to remain critical.

In Nigeria oil exports remain critical for government revenue mobilisation. The 2020 budget was built on the assumption of a barrel of oil selling for US\$57. The COVID-19 crisis saw global demand for oil drop, reducing the price of oil to US\$22 per barrel. This caused the Federal Government to issue a revised 2020 budget, with projected revenue from minerals reduced by 63%. Although the Federal Government maintained planned spending levels through borrowing and increased its own provision to sectors related to COVID-19, interest payments on debt are set to rise from 21% of the budget to 33% by 2025. In addition, State governments, who are critical for WASH financing and service delivery, were expected to see a 45% drop in oil revenue transfers in 2020. Oil revenue transfers account for the majority of the resources available to States for their budgets and spending.

Figure 28 shows the potential change in WASH expenditure for those LICs and LMICs where WASH spending data is available, based on the overall domestic revenue mobilisation scenarios above. While there is a level of uncertainty in revenue projections, under the business-as-usual scenario LICs would only see an increase of US\$1.1 billion in the level of annual spending on WASH in 2025 compared to 2018. LMICs would see a much larger increase in annual spending of US\$19.8 billion per year. A 'best case' scenario is also calculated. This is based on a country's estimated potential revenue generation, along with an increased commitment from those governments spending less than the per capita income group average.⁴⁷ This scenario would provide an additional US\$1 billion of WASH funding in 2025 for LICs and US\$12.6 billion for LMICs.

Figure 28 - Government spending on WASH based on revenue mobilisation scenarios, US\$ billions

Year	2018	2019	2020	2021	2022	2023	2024	2025
Business-as-usual domestic public funding for WASH	26.7	30.0	30.9	34.1	37.5	41.2	45.1	47.8
LICs (n=22)	1.5	1.6	1.6	1.8	2.0	2.2	2.5	2.6
LMICs (n=19)	25.2	28.4	28.7	31.8	35.0	38.5	42.3	45.0
Best case scenario for domestic public funding WASH	26.7	30.6	35.1	39.6	45.0	51.0	57.6	61.4
LICs (n=22)	1.5	1.7	1.9	2.2	2.6	2.9	3.2	3.6
LMICs (n=19)	25.2	28.9	32.9	37.2	42.2	47.9	54.1	57.6

Source: IMF article IV staff reports. GLAAS report 2017, 2019, various TrackFin reports and government budget documents.

Using the ‘best case’ scenario and estimating levels of WASH spending in LICs and LMICs without data shows a similar pattern (Figure 29).⁴⁸ It shows that under the assumption that all domestic public resources went exclusively to fund new capital infrastructure, with operating and maintenance covered by cost recovery measures, it would continue to leave a substantial financing gap in both LIC and LMIC groups, averaging US\$30 billion and US\$60 billion per year from 2018 to 2025 respectively. Although this gap could be addressed to some extent with private sector investment (see Section 3.3), this is likely to be a challenge particularly for LICs given that opportunities for private investment are limited. The situation has been compounded by the COVID-19 pandemic and reduced inflows of foreign capital. Therefore, the role of non-concessional international public resources will be critical (see Section 3.2).

While the 'best case' scenario above includes a commitment by governments with low proportional per capita WASH spending, there could also be opportunities to rationalise government spending to free up additional resources for allocating to the sector. For example, subsidies on energy form a key aspect of spending in some LICs and LMICs, and while they provide support to the poorest households, they also benefit the richest. Therefore, countries like India have moved to reform subsidies, with Nigeria and Sudan also having similar plans.⁴⁹ It is crucial that such reforms are made alongside continued support for the poorest in society.

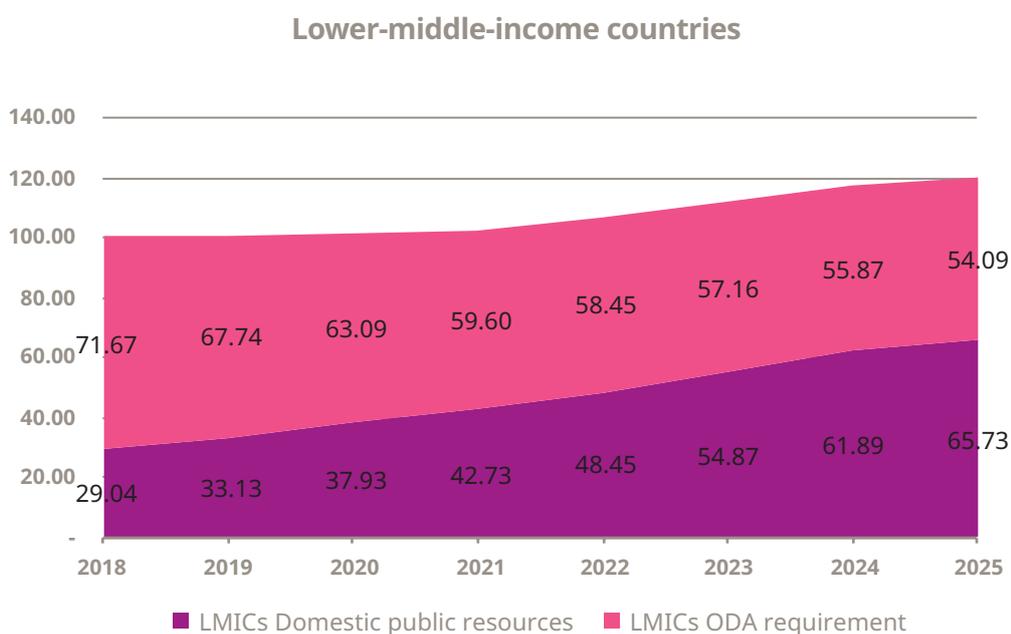
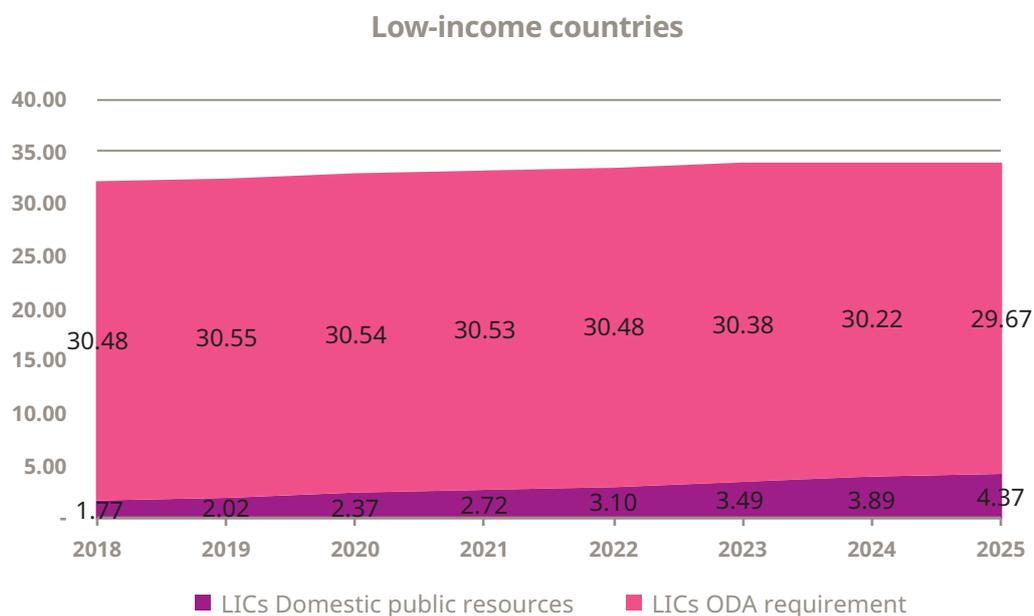
Combined with efforts to increase the scale of revenue and allocate greater domestic public resources to WASH, governments could also explore opportunities to adjust tax regimes to promote behavioural change in support of the attainment of SDG 6. For example, environmental taxation can be used to foster moves to zero carbon economies (e.g. taxes on fossil fuels), reduce waste (e.g. plastic taxes) or reduce water pollution (such as India's former water cess) or promote sustainable water use (e.g. South Africa's water resources management charge). These types of revenue generation methods could not only increase domestic public resources but support the public and industry to change behaviours in the pursuit of SDG 6.

5.2 ODA and international public resources

While there may be potential for private financing to play some role in meeting the SDG 6 financing requirement (see Section 3.3), Figure 29 provides a theoretical scenario where international public resources could meet the financing gap for new capital infrastructure, given the 'best case' scenarios for domestic public resources. In LICs this would require a continual annual disbursement of US\$30 billion for LICs (from 2018 to 2025) and an average US\$61 billion through to 2025 for LMICs. This scale of international public resource provision, if proportional funding to water and sanitation were to be maintained, would require a substantial increase in ODA from OECD and other donors. The current OECD Development Assistance Committee (DAC) country average of 0.3% of GNI would have needed to rise to 4.1% of GNI in 2018, falling to 3.4% in 2025—a more than ten-fold increase.



Figure 29 - Meeting the annual financing need for new capital WASH infrastructure, a best case scenario for domestic public resources and the financing required by international public resources to bridge the gap in LICs and LMICs



Source: See Figure 5 above for the costing estimates and references.

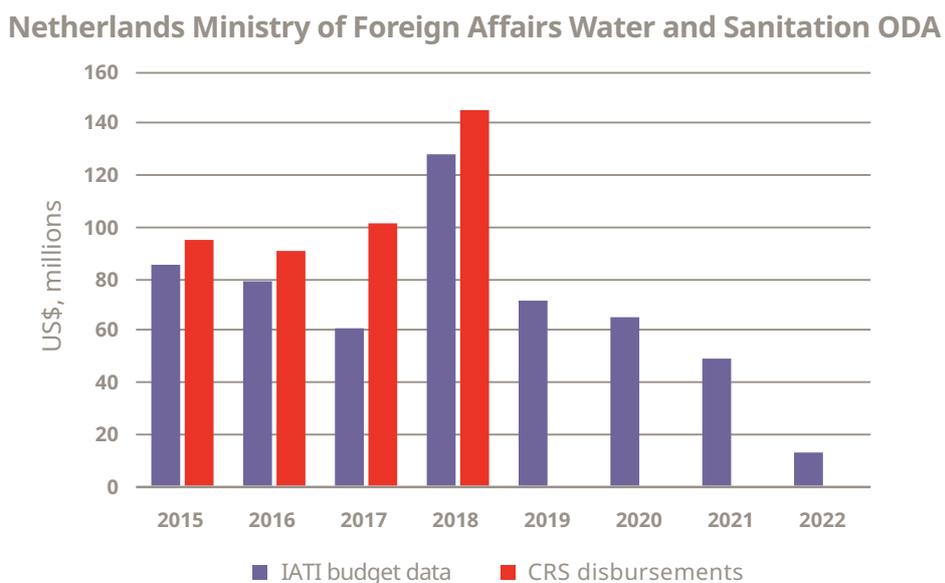
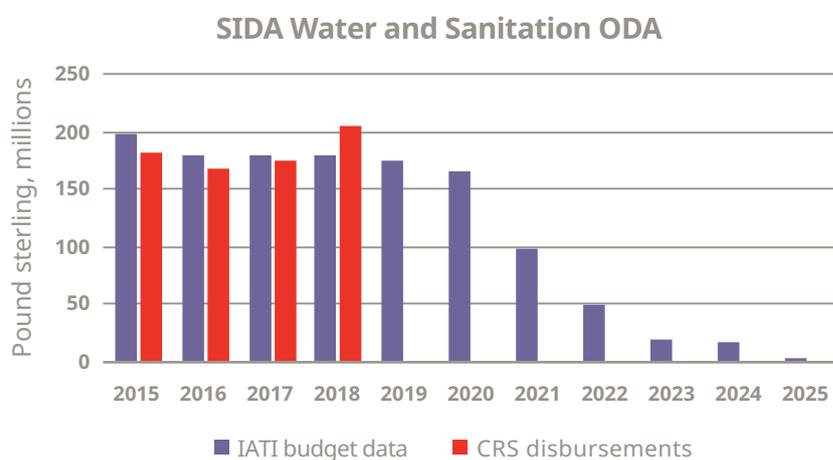
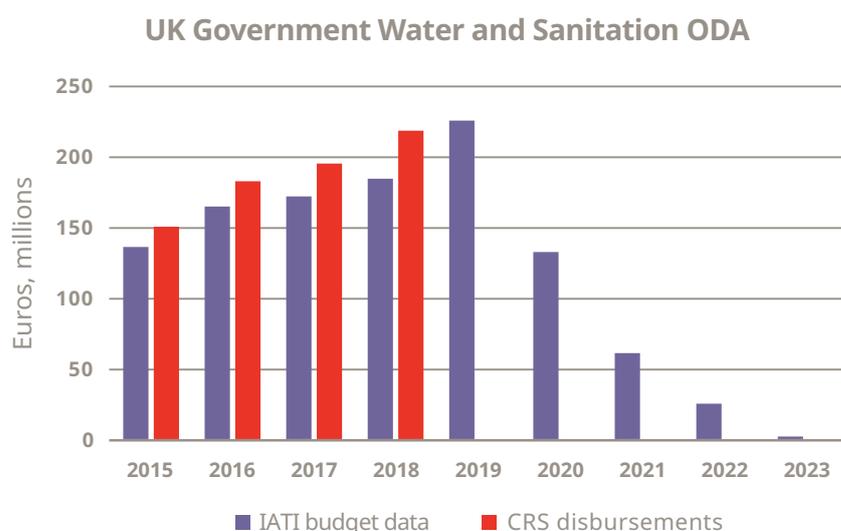
However, whilst this scale up in international public resources is technically feasible, evidence suggests that this optimal scenario will likely not be realised unless there is a substantial shift in the current outlook. For example, Figure 30 below shows planned medium-term budgets for water and sanitation by the UK (Foreign, Commonwealth and Development Office, FCDO), Swedish (Swedish International Development Cooperation Agency, SIDA) and Dutch Governments, as detailed on the International Aid Transparency Initiative (IATI) datastore.⁵⁰ For 2019 and 2020, where projects pipelines are defined, and data is most reliable, the datastore shows that the budget for water and sanitation ODA remained at broadly the same level or was set to fall.⁵¹

The UK Government announced in November 2020 that it would cut its ODA budget from 0.7% to 0.5% of GNI. In addition, recent OECD DAC Peer Reviews have shown how overall medium-term plans, for example Austria, Italy and Ireland, are showing that not only is the DAC member target of 0.7% of GNI not planned to be met, but current levels of funding are set to fall.⁵² Although European Union (EU) Member States reaffirmed their commitment to the 0.7% target as part of the 2017 EU Development Consensus, this was only to be attained by 2030, meaning there is no requirement in the short- and medium-term to scale up ODA to GNI allocations.



◀ Justine DABIRE (39) pictured on her tricycle next to her latrine, at Dissin, Burkina Faso, October 2016.

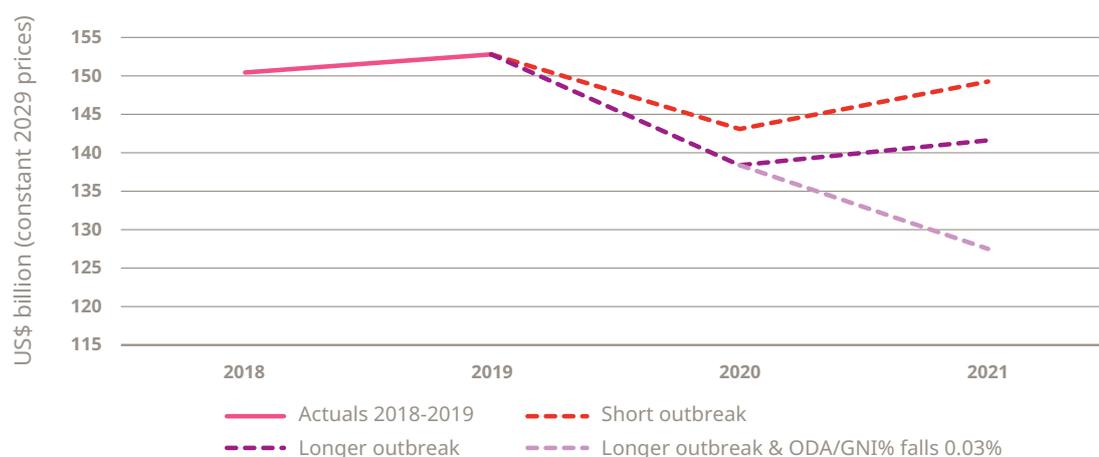
Figure 30 - Medium-term Water and Sanitation ODA for FCDO, SIDA and the Netherlands Ministry of Foreign Affairs (GB£, US\$, Euros: current prices)



Source: OECD CRS and IATI data store.

Notes: IATI forward looking budget data is based on projects already committed and based on almost real time reporting. Therefore, while the funding data for years of 2019 or 2020 is likely to be a realistic picture, the following years are only based on the current project pipeline and do not take account of new projects and programmes likely to be planned and implemented in the future.

Figure 31 - Total global Official Development Assistance (ODA) based on COVID-19 outbreak predictions



Source: Development Initiatives based on OECD CRS and IMF World Economic Outlook (April 2020).

This feasibility of international public resources to meet the gap will also likely be impacted by the current COVID-19 global pandemic, as partner governments experience recession and reduced economic outputs. Reduced economic output leads to smaller aid budgets in monetary terms where % to GNI targets are in place and put political pressure on governments to reprioritise resources away from ODA (see Figure 31). However, whilst overall levels of aid may reduce, the pandemic could potentially present an opportunity for a reprioritisation of ODA towards WASH, given the key role played by hygiene and water provision in reducing transmission rates.

There may be opportunities to harness international public finance for WASH through recent commitments made to increase climate finance, such as the US\$100 billion annual spending pledge from developed countries as a part of the Copenhagen Accord. For example, the UK Government pledged to double support to tackle climate change and committed to spending £11.6 billion over the next five years, with many other European bilateral donors committing to increase commitments to the Green Climate Fund.⁵³ Given the challenge raising private financing to meet the US\$100 billion target, under a scenario where this was all covered by international public resources, if the proportion of water and sanitation marked as climate finance was maintained this would lead to a tripling of resources to US\$8.3 billion. Whilst this additional investment based on the Copenhagen Accord would be welcome, the challenge will be not only to ensure the US\$100 billion target is met—and ideally surpassed—but that funding for adaptation and within that WASH is not only maintained in proportional terms, but also scaled up to support meeting the financing gap. If for example the overall US\$100 billion target was met by international public resources and within it water and sanitation accounted for a third of the total, this would lead to a ten-fold increase in funding, which if prioritised for LICs would meet the gap for new capital WASH infrastructure. This scale up of resources could be supported by HICs establishing carbon taxes. The SDSN has suggested that carbon taxes at US\$4 per ton would raise US\$ 50 billion per year that could be transferred directly to support LICs tackle climate-related issues.⁵⁴

Box 10 - ODA for Domestic Revenue Mobilisation (DRM)

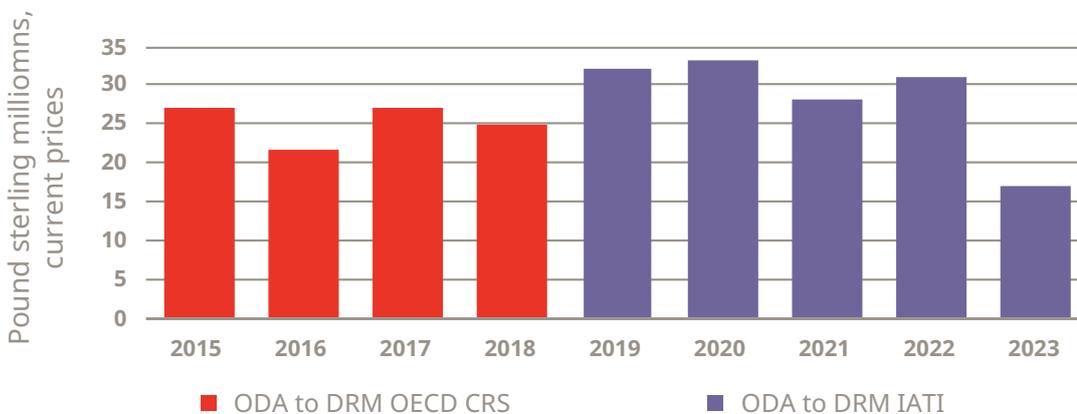
The Addis Ababa Action Agenda (AAAA) outlines the pivotal role domestic public resources can play in financing countries development agenda to meet the SDGs, along with the role development partners can play in supporting countries in their revenue mobilisation efforts. It was for this reason that at the launch of the AAAA in 2015 the Addis Tax Initiative (ATI) was established to foster and bring greater coherence and coordination to development partner support. Development partner governments committed within ATI to double their technical assistance from 2015 to 2020 and ensure coherence in their support to the SDGs. However, progress to double support appeared off-track (Figure 32) and only a few donors such as Australia and Germany reported projects that directly linked green growth and sustainability to their support for revenue mobilisation. In addition, donors like the UK were off-track on their efforts to meet 2020 targets (Figure 33).

Figure 32 - ODA to domestic revenue mobilisation, by ATI and non-ATI actors



Source: OECD CRS.

Figure 33 - UK Government ODA disbursements and future budget to DRM



Source: OECD CRS and IATI datastore.

Although increasing the proportional share of WASH ODA can support reducing the funding gap with less overall needed to scale up international public resources, it is also important to consider how ODA to other sectors can also support attainment of universal WASH access. For example, wider investment in electricity provision can reduce the costs of water agencies utilising generators or enable renewable energy provision in remote areas. With the recent creation of initiatives such as the Climate Investment Platform in September 2019 to support scaling up resources for the low-carbon energy transition, there are clear prospects for greater investment towards low-carbon economies that support attainment of SDG 6. In addition, ODA could support catalysing wider investment either directly in the sector through blended financing mechanisms or indirectly catalyse other forms of financing for the WASH sector. For example, initiatives to support government DRM through broadening the tax base or rolling out environmental taxation could have major positive impacts on resources available for funding the attainment of SDG 6. However, although DRM has been an increasing focus of aid allocations, funding commitments made in this area remain off track (see Box 10).



Decentralised north-south cooperation

In several European countries there are examples of local government and water utilities allocating a percentage of their budget to support investments in WASH at local level in developing countries. In France, the Oudin-Santini Act (2005) enables the water industry, local government bodies and water agencies to dedicate 1% of their water budget to cooperation and solidarity. Between 2007 and 2018 nearly €300 million in funding was mobilised by French local government bodies, unions and water agencies for the benefit of partner countries.⁵⁵ Similar solidarity mechanisms exist in the Belgium, Italy, the Netherlands and Switzerland.

5.3 Potential of wider financing

Remittances

While international and domestic public resources remain critical to financing universal access to WASH, the size of the financing gaps points highlights the need to seek opportunities in the future from other sources as well. Remittance inflows, which can play a key role in household income, to LICs and LMICs have seen a large consistent increase over time. They can potentially play an increasing role in supporting households to meet operating costs and fund new household infrastructure. However, the COVID-19 pandemic has had a significant impact on remittances across LICs and LMICs (see Figure 34) with only a partial recovery forecast in 2021. This poses a clear challenge to household finances overall and the opportunity for investments in WASH services.

Figure 34 - Remittance inflows in LICs and LMICs

Remittance inflows (US\$ billions)	2019 (estimate)	2020 (estimate)	2021 (projected)
Sub-Saharan Africa	48	37	38
South Asia	140	109	115
Middle East and North Africa	59	47	48
Latin America and the Caribbean	96	77	82
Europe and Central Asia	65	47	49
East Asia and Pacific	147	128	138
Low- and Lower-Middle-Income country Total	545	444	470

Source: COVID-19 Crisis Through a Migration Lens. Migration and Development Brief 32, April 2020. <http://documents.worldbank.org/curated/en/989721587512418006/pdf/COVID-19-Crisis-Through-a-Migration-Lens.pdf>

While the medium-term outlook for remittance flows is a decline, Pakistan provides an example of opportunities for governments to channel donations from the diaspora to financing infrastructure investment (see Box 11). A key component is donor trust in the organisation or individual to utilise the funds effectively. Therefore, the use of remittances in this way by governments needs to be carried out in a transparent and accountable way. This is key to ensuring that trust is maintained, and the sustainability of this potential financing model achieved. In addition, governments could also work to reduce transaction costs of donations and remittances in general to support giving in this way.

Box 11 - Direct channelling of donations from the diaspora to support WASH relevant financing in Pakistan

In September 2018 Prime Minister Imran Khan called for the Pakistani diaspora to 'Donate for Dams'¹. This led the Supreme Court of Pakistan to set up a fund-raising drive for the Diامر-Bhasha and Mohmand dams. As of the 11th March 2019 the fund had raised PKR 10bn (US\$96mn). Whilst the primary purpose of the dams is electricity production and irrigation, it shows the clear potential to fund the WASH sector directly through donations. However, as the WASH sector is the responsibility of provincial governments, it may be more difficult to build up publicity for a donations campaign, given that the initial call for the 'donate for dams' scheme came from the Prime Minister.

Although the decline in remittance in-flows may impact household incomes in LICs and LMICs, government WASH financing strategies are typically built on the assumption that households and other customers will cover maintenance costs and pay for infrastructure on their own premises. However, as detailed in Section Two, although there are many examples of progress in addressing utility or other service provider non-revenue water, many governments continue to meet a large proportion of operating and maintenance costs.

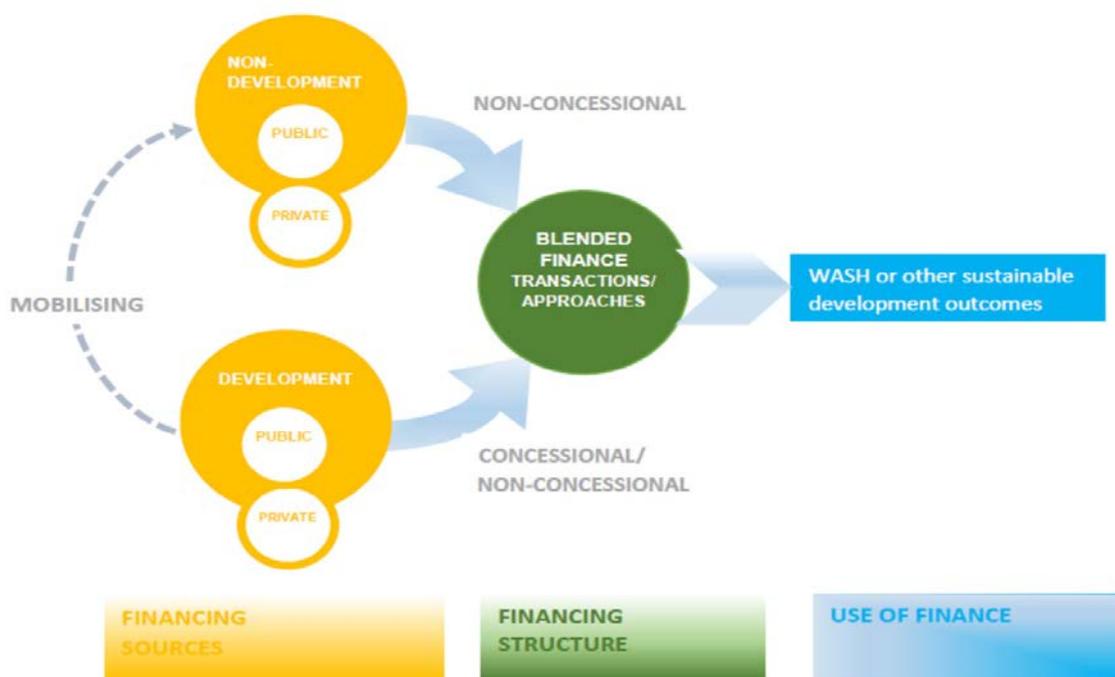
While this pattern may not change substantially in the medium term, many water ministries and agencies (such as the National Water and Sewerage Cooperation in Uganda) are prioritising reducing non-revenue water through a range of measures.⁵⁶ These include offering different payment methods through digital means like mobile money, to reduce the burden on customers, increasing the number of premises with metered supplies, and actively promoting their WASH services. In addition, to encourage increased capital investment on private premises, governments are actively supporting change by increasing demand for household infrastructure (through advocacy campaigns and subsidising equipment) along with supply (engaging with and supporting private sector). Whilst government investments in this area may reduce the short-term funding availability for direct WASH services, over the medium-term these methods provide opportunities for increasing consumer investment. In addition, alongside direct support to increase funding from households, increasing utility and service provider access to finance will also be critical in strengthening their ability to pay for infrastructure.

Private finance

The private sector provides another potential opportunity to increase investment in the sector. There are several ways in which private finance can be mobilised for the WASH sector. These include repayable private finance for water and sanitation infrastructure from domestic or foreign banks, business and philanthropic foundations providing funding as part of their Corporate Social Responsibility (CSR) activities, remittances from household members working abroad, and finance for households or businesses provided by micro-finance institutions or domestic banks. Private finance for the WASH sector in developing countries has historically been at low levels, however. A 2017 UNICEF World Bank paper reported that private finance accounted for 7% of total spending on water and sanitation in developing countries and less than 1% in Sub-Saharan Africa.⁵⁷ Public Private Partnerships (PPPs) in the water sector have also been contentious, with concerns particularly from local community groups and civil society organisations over issues such as affordability of tariffs and user fees and foreign privatisation of a public good.

The World Bank, the UN and others have emphasised the importance of unlocking private finance for the WASH sector, particularly given the size of financing gaps. There is also growing interest and commitment from investors, commercial banks and multinational corporations to improve their Environmental, Social and Governance (ESG) performance. This provides a significant opportunity to align international finance more closely with the sustainable development agenda, including the WASH sector. There remain nevertheless significant barriers. Lenders and investors tend to highlight problems of insufficient data, information gaps, low capacity and unviable risk premiums.

Figure 35 - Blended finance structure



Source: OECD.

The blending of government funds or ODA to address the barriers identified above is advocated by many multilateral organisations, including the World Bank, OECD and the EU. The Finance in Common Summit in November 2020 saw the launch of a coalition, involving the French Development Agency (AFD), the Multilateral Development Banks and the Sanitation and Water for All (SWA) Partnership, which is seeking to facilitate greater use of blended finance to the sector. The Asian (ADB) and African Development Banks (AfDB) have also announced their intention to develop modalities for mobilising more private finance for WASH.⁵⁸ Figure 35 shows the type of model likely to deliver this, with grant funding combining with private finance to improve affordability and manage risk.

In addition, there is also an increasing amount of interest in private investment in climate finance, such as green bonds. These are perceived as having potentially lower risk and greater return on investments. Issue of these bonds has increased significantly over time.⁵⁹ However, a critical factor remains about the accessibility of financing to LICs and LMICs, with credit worthiness and capital flight an increasing concern given the COVID-19 pandemic.



6: Key actions for progress on SDG 6



UN Secretary General, António Guterres, said in 2020: “The 17 Sustainable Development Goals (SDGs) demand nothing short of a transformation of the financial, economic and political systems that govern our societies today to guarantee the human rights of all.”⁶⁰ This study, which updates the important work of the World Bank in 2016, confirms the relevance of this to SDG 6. In many ways, the results are unsurprising: an already significant financing gap has widened further due to a combination of factors, including the COVID-19 pandemic, resulting economic recessions and past failure or inability to invest at the levels required to match the ambition set globally in 2015.

Focusing on SDG 6 targets 6.1 and 6.2—universal access to safe water, sanitation and hygiene—the model in Section 2 shows that capital costs to reach new and unserved populations in LICs and LMICs are an average US\$229 billion each year through to 2030. This includes the costs of building resilience to climate change. The model also shows how vital O&M expenditure is for sustaining safely managed and climate-resilient outcomes. O&M needs for existing and new infrastructure grow to over US\$1.1 trillion annually by 2029. A strong, high-performing and financially-viable sector is central to maintaining progress made.

Basic hygiene, along with basic water systems, represent a cornerstone for preventing the transmission of infectious diseases. The report also shows that an additional investment of US\$80 billion could accelerate access to basic water and basic hygiene by 2021.

The research and analysis in the report signal the need for a major international effort to mobilise the finance necessary to achieve SDG 6. We believe that this should focus on three key areas:

- A major increase in the volume of finance allocated for achieving SDG 6
- A drive to improve the quality of finance, including improving transparency, affordability, financial absorption and sustainability
- Using finance to strengthen WASH systems and enabling environments

6.1 Increasing the quantity of finance

Public finance

Water and sanitation are human rights with important public good characteristics. This public good nature points to the need for public finance if optimal outcomes are to be achieved. This applies to WASH for households as well as for schools and health care facilities. The Addis Ababa Action Agenda, the outcome document of the UN Financing for Development Conference in 2015, affirmed the central role of DRM in financing development.⁶¹ It underpins the national ownership and sustainability of financing solutions. Most developing country governments significantly under-prioritise their public spending on WASH however. In Africa, the Ngor (formerly eThekweni) commitment to allocate 0.5% of Gross Domestic Product (GDP) on sanitation and hygiene has not been met, with many African countries well below this benchmark.

Conversely, those countries which have made significant progress in improving access to WASH have shown how DRM is central to the process. In India DRM and the political priority from the government, has been the main driving force for substantially reducing Open Defecation as part of the Swachh Bharat Mission. The SWA Partnership highlights these successes, identifying over US\$23 billion spent on infrastructure and US\$ 3.6 billion on accompanying education and sensitisation. This report highlights how DRM enabled increased public investment in WASH before the pandemic in Ethiopia and Mali.

ODA volumes

Recent studies by the Overseas Development Institute (ODI), the International Monetary Fund (IMF) and the Sustainable Development Solutions Network (SDSN) have shown that DRM will not be enough to achieve the SDGs, particularly for LICs and LMICs.⁶² For these countries, ODA or aid still plays a vital role. The report shows that ODA for WASH has stagnated over the past decade at around US\$7 billion, well below what is required for these countries to achieve SDG 6. Aid budgets are under pressure as OECD countries seek to rein in public spending (the UK has reduced its ODA to GNI ratio from 0.7% to 0.5%) and donors are also using aid budgets to meet their climate finance commitments. It is critical for many countries, and particularly fragile states such as Somalia highlighted in this report, that there is a substantial increase in ODA to WASH from current levels. The impact of COVID-19 and growing debt distress in LICs indicate that this should be provided as grants.⁶³

Cross-sectoral finance

There are also opportunities from related sectors, which can help address financing gaps in the WASH sector. Education budgets need to ensure that schools are adequately equipped with operational WASH infrastructure; health budgets need to ensure there is adequate WASH in hospitals and health care facilities. National education, health and local government budgets are all relevant for DRM in the WASH sector.

For example, the responsibility for delivering WASH services in Ethiopia is shared across different sectors. Within the government all three levels of government (Federal, Regional and Local) have roles both on oversight and implementation. Implementation of WASH projects and programmes is primarily split between the federal ministries, regional bureaus and local government offices of health (sanitation), education (WASH service in schools) and Water, Irrigation and Electricity (water supply). The respective budgets for these ministries, regional bureaus and local government offices are all important in the endeavour to improve WASH access across the country.

Decentralised finance

The report also highlights how decentralised solidarity finance can contribute to addressing the financing gap. There are several examples in EU countries, including the Oudin-Santini law in France, which could be rolled out much more widely. Medium- to long-term twinning relationships can bring significant benefits in terms of technical expertise, knowledge transfer as well as funding. There is a proven track record for water utilities and local government in this area, with flexibility to use a percentage of the budget for international solidarity. It is an approach which potentially could be applied to other sectors, including energy, health and education, and could contribute to a global effort to mobilise finance for the SDGs, discussed in the next section.



WaterAid/ Genaye Eshetu

▲ Education budgets have an important role in ensuring national access levels: Adisae, seen here at a new tapstand, is a pupil at a school in Amhara, Ethiopia. November 2018.



Private finance

The report discusses the different forms of private finance in the WASH sector, all of which can potentially complement household, service provider or government finance and contribute to closing the financing gaps identified. Remittances significantly outweigh ODA flows in many countries and can boost household budgets for WASH infrastructure and services without adding to household debt. Philanthropic funding and the CSR budgets of multinational corporations have shown significant growth over recent decades and can have major positive impacts on targeted communities through to 2030.

Microfinance institutions can provide small loans to households or entrepreneurs to finance items such as rainwater harvesting tanks, water connections, shallow wells, pumps, ventilated improved pit latrines, septic tanks, sanitation slabs and biogas toilets. Bangladesh, Cambodia, India, Indonesia, Kenya and Malawi have growing microfinance sectors, and provided interest rates and tenures are affordable, this can support a vibrant private sector.

There are also examples of how public finance is being combined with private finance to address bottle-necks and barriers. In Bangladesh, an output-based aid (OBA) subsidy to microfinance institutions is used to help support the business development of sanitation products and extend their reach to poorer households. In Cambodia, a combination of non-sovereign concessional lending, guarantees, grants, and technical assistance has been used to leverage local commercial finance and equity investments for piped water supply in rural areas and small towns. In Colombia, a partly government-owned second-tier lender, FINDETER, provides discounted loans to domestic commercial banks that lend to local entities to finance water and sanitation infrastructure projects. In India, the Water and Sanitation Pooled Fund in Tamil Nadu issued a pooled bond to facilitate access to long-term domestic capital markets for financing water and sanitation services. In Jordan, a blended financial package with the US Millennium Challenge Corporation financed the expansion of the As-Samra Wastewater Treatment Plant. In Uganda, UK aid supported a US\$49 million investment by the Private Infrastructure Development Group (PIDG) to deliver solar power, water, road and ferry transport to Bugala Island on Lake Victoria.

The growing interest and commitment from investors, commercial banks and multinational corporations to improve their ESG performance provides a significant opportunity. Despite low levels of private finance for the WASH sector in developing countries, in the right circumstances and right terms, private finance can help close the financing gap—and needs to be mobilised at much higher levels than is currently the case. Blending is likely to be a key requirement in LICs and LMICs, with grants to fund project preparation and improve financial affordability, viability and value for money.

Climate finance

Climate finance is a fast-growing area, incorporating private and public finance at increasingly large volumes. WaterAid's review of the climate finance landscape showed that only 5% of climate finance is currently allocated for adapting to climate change – roughly US\$30 billion per year.

Although of this adaptation finance, significant amounts go to the water sector, only a small fraction goes to WASH in low-income countries.⁶⁴ The report refers to the commitment from the international community through the UNFCCC process to provide US\$100 billion a year in climate finance for developing countries. There is an urgent need for much higher volumes of public climate finance for adaptation, for WASH and for this to flow to LICs and LMICs. For many reasons, including social and climate justice perspectives, most of this climate finance should be in grant form. The international community should also not limit itself to US\$100 billion. Climate change represents an existential threat to people and planet. In a multi-trillion-dollar global economy, US\$ 100 billion can only be a first step towards the adaptation, mitigation and economic transition that is required.





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▲ Flooding in Bangladesh. Minimal amounts of funding is available for poor countries to adapt to climate change impacts.

6.2 Improving the quality of finance

Transparency

As well as mobilising higher volumes of finance, it is essential that there is a concurrent drive to improve the quality of finance. There are many dimensions to this. One aspect is the level of transparency around financing. In many LICs and LMICs, it is very difficult to form an accurate picture of the totals and types of financing made available to the sector. ODA is generally well-reported by OECD donors and is readily available on-line.⁶⁵ Reporting of government spending often requires access to relevant government publications which are not available on-line. It is difficult to get an accurate picture of household contributions to the sector. Initiatives such as the WHO's TrackFin and the UN-Water GLAAS report have been very beneficial in improving transparency, as have the OECD Creditor Reporting System, IATI, and Aid Data on aid flows.

Where there is low transparency, the risk of funds being poorly used, or of corruption, are significantly increased. The Water Integrity Network (WIN) cites common examples of corruption in the sector: collusion or bribes over contracts, cutting red tape in applications for reservoir or ground water abstraction, giving preference to certain providers in water service or infrastructure contracts, expediting a household's connection to municipal water supplies, or falsifying water meter readings. The World Bank has estimated that 20-40 per cent of water sector finances are being lost to dishonest practices.

Financial absorption

Improving the quality of finance requires steps to address financial absorption constraints. Frequently there are cases where despite evident need, available funds are not being spent. This might reflect a lack of political commitment from senior levels of government, late release of funds from finance ministries to sector ministries, human resource and skills gaps in the public and private sectors, slow rates of fiscal decentralisation, imbalances between capital and recurrent funding and complex procurement requirements from donors.⁶⁶ The report has also identified that very little climate finance is flowing to low-income countries for adaptation in the WASH sector. Climate funds require significant evidence to justify climate vulnerabilities and additionality needs over traditional development requirements. This is one reason why middle-income countries with high capacity are attracting much higher levels of climate finance than LDCs and fragile states.

Subsidy design

Another area for improving the quality of finance is the design of subsidies. Subsidies or incentives from the Indian government at Union and State level have played a central role in the success of the Swachh Bharat Mission discussed above. However, in many developing countries subsidies often benefit those with existing connections to networks, many of whom are wealthier households. As a result, poor households do not benefit from the subsidy and the water service provider loses the tariff revenue it would otherwise have collected.⁶⁷

Effectiveness of ODA

There is also an important agenda for improving aid effectiveness. This report reinforces the conclusions of 2020 WaterAid research, which highlighted how ODA is frequently targeted outside of LDCs, as donor countries follow their own strategic interests.⁶⁸ There has also been a growing tendency of both bilateral and multilateral donors to increase the amounts of ODA provided as loans. While concessional finance is preferable to market-rate lending from developing country government perspectives, this trend is increasingly problematic in the context of COVID-19 and growing debt burdens.

IMF analysis showed that even before the pandemic forty percent of LDCs were in or approaching a state of debt distress. The G20 has provided relief on debt service for many developing countries, but this is a temporary suspension, which has not been translated into debt cancellation, nor does it include private debt. The UK's International Development Committee (IDC) made a call for urgent debt cancellation for the poorest countries in January 2021.⁶⁹

There is scope to improve the targeting of ODA considerably. Figure 16 shows that some of the countries where need is highest in terms of water and sanitation poverty—Central African Republic, Chad, Democratic Republic of Congo, Madagascar and Niger—are receiving much lower amounts of ODA than middle income countries, such as Cabo Verde, Jordan, Morocco and Tunisia. This is likely reflecting donor strategic priorities as well as their increasing reliance on loans.

In addition to providing more ODA in grant form and targeting it more effectively to reflect need, there are other key actions which can improve the quality and effectiveness of ODA. Through the SWA partnership, governments, development partners and civil society organisations have agreed four collaborative behaviours. These principles are aimed at ensuring investments are as effective as possible in strengthening the processes, systems and institutions needed to deliver sustainable water and sanitation services. They are: (i) enhance government leadership of sector planning processes; (ii) strengthen and use country systems; (iii) use one information and mutual accountability platform; and (iv) build sustainable water and sanitation sector financing strategies.

Sector Wide Approaches and ringfenced funds

Sector Wide Approaches (SWAs), such as the ONE WASH National Program in Ethiopia, and ringfenced funds such as the Poverty Action Fund (PAF) established in Uganda can also play an important role in improving the quality of finance. SWAs enable the government and donors to work together, financing an agreed national programme. In Ethiopia this has enabled the government to set the priorities for investment and reduced transaction costs related to the activities of many donors.

Ringfenced funds such as the PAF could potentially be focused on SDG 6 and other SDGs and involve higher levels of transparency, with parliamentarians and civil society organisations given greater powers for scrutinising budgets, spending and tracking outcomes on the ground. They could be an incentive for donors to deliver increased predictability of funding, as well as a potential vehicle for incentivising the return of illicit financial flows or stolen funds.⁷⁰

6.3 Strengthening the WASH sector

Many investments in the WASH sector do not support the long-term sustainability of services. Unless effective national policies, institutions, legal frameworks and financial systems are in place the sector—public and private organisations—can remain weak and fragile. This includes the public and private sectors, both of which need to work effectively if universal access and fully functional services are to be achieved. A key recommendation of this report is to ensure that increases in the volume of finance for WASH serve to strengthen the system and underpin its long-term sustainability.



A strong sector involves many different dimensions. It requires strong demand from users, timely and accurate data, adequate revenue to recover recurrent costs, appropriate tariff structures providing affordable services for the poorest and most marginalised and a functioning management and maintenance system. Where services are managed by communities, there needs to be effective external support—often from local government—to those community-level structures and institutions. The natural resource and environmental aspects of the system also need to be given due attention.⁷¹

Also central to sector strengthening is the role of civil society to strengthen the transparency and accountability of government funding. This is often done at national level in collaboration with WASH networks, through budget tracking, supporting participatory budget initiatives and working with parliamentarians. Improving transparency, introducing SWAPs or ringfenced funds as discussed above are all potentially important contributors.

▼ **Krishna Sunuwar, a plumber, repairs a tap in Kharelthok Village, Central Region, Nepal. July 2016.**



WaterAid/Adam Ferguson

7. Blueprint: financing SDG 6 and Agenda 2030



Although past decades have seen major advances in reducing poverty and improving human development, the world has also become increasingly unstable, unsustainable and unequal.⁷² The coronavirus pandemic shows this profound fragility and unsustainability: a chronic underinvestment in human health and well-being and the folly of excessive exploitation of biodiversity and the natural environment. The recent Dasgupta Review into the Economics of Biodiversity highlights how many ecosystems, from tropical forests to coral reefs, have been pushed beyond repair.⁷³ The related and accelerating climate emergency, evident in all parts of the globe, compounds these impacts and presents a twenty-first century, existential challenge for humanity. There has never been a greater need for visionary leadership—in government, business and civil society—to restore the world to a sustainable and equitable pathway. This section sets out a financing blueprint for such an approach.

7.1 Financing sustainable development

The Agenda 2030 for Sustainable Development—the central context for this report—provides a framework for this pathway over the next decade. Our proposals in Section Six include steps to unlock a substantial increase in the volume of finance for WASH from public, private, domestic and international sources (the balance dependent on country context), as well as an emphasis on the quality of finance: ensuring it is affordable, sustainable and transparent. However, we know also that SDG 6 is closely connected to other SDGs—health, gender, education, biodiversity, climate—to name just a few. These SDGs also face major financing gaps along the lines of SDG 6.

Even before COVID-19, annual financing gaps for the SDGs in developing countries were estimated to be between US\$1.4 and US\$2.5 trillion.⁷⁴ WaterAid research with End Water Poverty, *Common Purpose, Common Future*, estimates a US\$400 billion negative impact from COVID-19 on developing country SDG spending in 2020 and 2021. Climate change adaptation and resilience needs add to the financing challenges and external debt service obligations for many low-income and middle-income countries have reached unpayable levels.⁷⁵

In the previous section we highlight the statement of the UN Secretary General that the SDGs require a transformation of the financial, economic and political systems that govern our societies today. Professor Dasgupta makes a similar point of the scale of change that is required to return the world to a sustainable trajectory. The relevant passage is quoted below:

“In the wake of the Second World War, the Marshall Plan was launched to rebuild Western Europe.⁷⁶ While most historians agree that the recovery experienced in Europe cannot be attributed to the Marshall Plan alone, there is little doubt that it hastened the recovery: industrial production in recipient European countries leapt by 55% in just four years (1947 to 1951). By the effective end of the Marshall Plan in 1951, national per capita incomes in Britain, France and West Germany were more than 10% above pre-World War II levels; and the resumption of growth was sustained over the decades that followed.⁷⁷ If we are to enhance the supply of natural capital and reduce our demands on the biosphere, large-scale changes will be required, underpinned by levels of ambition, coordination and political will at least as great as those of the Marshall Plan.”⁷⁸

The current conjunction of crises is so perilous and time so short that we believe that 2021 needs to be the year in which mobilisation of finance on this scale begins. It should focus on two key areas: first, a drive to strengthen DRM and public financial management in developing countries, with enhanced transparency through parliamentary and civil society oversight; and second, an annual grant transfer from high-income countries of 2.5% of Gross National Income (GNI) to developing countries from 2021-2025—a new target for our times.



◀ Commemorative stamp of the European Recovery Plan, the “Marshall Plan”.

neftali, Shutterstock

7.2 A renewed drive for Domestic Resource Mobilisation

This report shows how in the context of WASH, DRM can contribute to major progress—Ethiopia, India, Mali and Pakistan. The principles are the same for the other SDGs, but COVID-19 comes on top of already weak public finances. Countries with tax revenues below 15 per cent of GDP have difficulty funding even basic state functions, yet significant numbers of low-income countries are below this threshold, including 70% of all fragile and conflict-affected countries.⁷⁹ A growing developing country debt crisis compounds the difficulties. Before COVID-19, the IMF estimated that 44% of low income developing countries were at high risk or in debt distress.⁸⁰

International support to strengthen DRM is needed to complement domestic efforts. A USAID study indicated a 20:1 return on this type of investment, with improved tax collection enabling the funding of child vaccinations, literacy programmes and hunger interventions.⁸¹ At the launch of the Addis Ababa Action Agenda in 2015 the Addis Tax Initiative (ATI) was established to foster and bring greater coherence and coordination to donor support. Development partner governments committed within ATI to double their technical assistance from 2015 to 2020 and ensure coherence in their support to the SDGs. However, this report shows that progress at present to double Official Development Assistance (ODA) for DRM is off-track. Other important initiatives in this area include Base Erosion and Profit Shifting (BEPS), the Platform for Collaboration on Tax and Tax Inspectors without Borders.

WaterAid's research into the Extractives Industry shows that audits of major mining companies in Zambia, supported by the Norwegian Government, led to mining income to the Zambian Government more than tripling in one year.⁸² Too often multinational companies are able to exploit the international financial system for tax avoidance or tax evasion purposes, as demonstrated by the recent example of Ireland, the EU and Apple Inc.⁸³

WaterAid calls for renewed steps to strengthen DRM for the SDGs, with action in developing countries to improve tax administration, broaden tax bases and close loopholes which enable aggressive tax avoidance and evasion by multinationals and wealthy individuals.⁸⁴ This should be accompanied by a major debt cancellation initiative, which includes bilateral, multilateral and private debt—and which goes beyond the current postponement and rescheduling policy of the G20.

For many people the human rights to water, sanitation, food, education, health and housing—and their related SDGs—remain unfulfilled and unfunded. COVID-19 adds new layers of challenge and complexity, with the poor and vulnerable most impacted and at risk. Through a broadening of the tax base, increased and equitable tax collection, debt reduction and a major drive on DRM for the SDGs, the situation can be turned around.

7.3 A major transfer from high-income to low-income countries



DRM can only go so far in closing finance gaps however.⁸⁵ Private finance can have an important role, particularly in middle-income countries and in infrastructure projects and sectors where required rates of return can be achieved. Affordability remains a key factor however, constraining opportunities in LICs and LMICs, and many areas of climate change adaptation, including flood and coastal defence, drainage and sanitation systems require significant levels of public finance. The recent default by Zambia on its private debt is nevertheless a reminder of the limits of private finance. COVID-19 and severe recession has left many developing countries struggling to service their debts with private creditors resistant to engage in comprehensive debt relief programmes.

With these factors in mind, we believe there is now a need for a new financial target for all high-income country governments—2.5% of Gross National Income (GNI)—to be provided each year from 2021 to 2025 as a grant transfer to developing countries for sustainable development. We believe that this level of international support is now required to close SDG financing gaps and address the common, inescapable global challenges we all face. COVID-19 shows that a chain is as strong as its weakest link. A renewed, replenished, and empowered UN system, with increased budgets and powers, should be at the heart of this vital multilateral initiative.

The proposed target would combine and extend the existing ODA target of 0.7% GNI (UN General Assembly, 1970) and the climate finance commitment of US\$100 billion a year (Copenhagen, Conference of the Parties 2009). The 0.7% target and accompanying ODA have served as a benchmark for global cooperation, partnership and solidarity for several decades. More recently, developed countries have committed to assist developing nations with their climate mitigation and adaptation activities –explicitly recognising that climate change requires new and additional funding. However, despite notable exceptions, the 0.7% has not been met in full and many donors are drawing on ODA budgets to meet their climate finance commitments.⁸⁶ Fifty-years on, and with an Agenda 2030 which combines economic, environmental and social objectives, there is a persuasive case for a new and higher target to ensure additionality of climate finance and relevance against the scale of the challenges now facing UN member states.

The new target, if met by all high-income countries, could raise US\$1.3 trillion a year, enabling significant investment in currently underfunded social sectors, addressing infrastructure deficits and providing a counter-cyclical stimulus for low-income country economies and employment.⁸⁷ The relative scale has similarities with the historical Marshall Plan of aid to western and southern Europe for reconstruction and development after World War II. The programme provided grant support to 17 countries equivalent to 2.2% of the USA's GDP over a four-year period.⁸⁸

It can be compared to today's global military expenditure of US\$1.9 trillion⁸⁹ and global space programme expenditure of US\$432 billion⁹⁰. Other comparators include US\$8.7 trillion held in tax havens and US\$20.4 trillion mobilised in response to COVID-19 in industrialised economies.⁹¹

A review of the target is proposed for 2025 with a potential increase, depending on the success of the global recovery from COVID-19, progress against the SDGs and tackling the accelerating environmental crises.



Raising the funds

The necessary funding could be raised from multiple sources, discussed in detail in *Common Purpose, Common Future*. Many have the advantage of not only raising funds for the SDGs and the Paris Agreement, but also in themselves addressing growing inequality, unsustainable environmental practices, and volatility and criminality in financial markets. The sources include the phasing out of fossil fuel subsidies, the introduction of financial transaction and carbon taxes, reducing tax avoidance and evasion, wealth taxes, a new issuance of Special Drawing Rights (SDRs) and debt cancellation. All are based on existing or past policies and therefore present a tried and tested approach. All can contribute to the financing of the SDGs without adding to growing levels of unpayable debt.⁹²

For example, most G20 countries already have some form of Financial Transaction Tax (FTT), and the European Union is actively discussing implementation of a new FTT. Several countries have adopted airline ticket levies, with revenue allocated for development. Many countries have carbon taxes in place. An SDR allocation was one of the policy responses adopted following the 2008 financial crisis. Table 2 provides a (non-comprehensive) list of identified sources and amounts, which could support developing country DRM and a 2.5% GNI target—or higher targets during the decade to 2030.

Table 2 - Potential funding sources

Measure	Annual amounts raised (indicative)
Ending fossil fuel subsidies	US\$400 billion
Financial Transaction Taxes	US\$ 400 billion
Airline ticket levies	US\$ 10 billion
Carbon taxes	US\$ 1.8 trillion
Wealth taxes	US\$ 1.2 trillion
Reducing tax avoidance and evasion	US\$ 600 billion
SDR issuance	US\$ 1.0 trillion
Debt cancellation	US\$ 1.5 trillion
Total	US\$ 6.9 trillion



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Spending the funds

Over two billion people lack access to safe water and three billion people to basic handwashing facilities, a first line of defence for this and other pandemics; over a billion people live in slums, too close to practise social distancing; and at least half of the world's population do not have access to essential health services. The pandemic jeopardises learning opportunities for hundreds of millions of children and the livelihoods of almost half the global workforce. Strengthened DRM complemented by debt relief and this annual international transfer would enable significant uplifts in those areas—health, education, gender equality, social protection, food security, housing, energy, water, sanitation, hygiene—most needed to achieve sustainable development outcomes.

Priority should be given to those areas essential to combating COVID-19, including the roll out of vaccine programmes, strengthening weak health systems and providing access to water, sanitation and hygiene, a key intervention for preventing transmission of infectious disease. As we mention in Section Five, universal basic hygiene and basic water could be achieved by 2021 with an investment of an additional US\$80 billion to the requirement through to 2030. Strengthening health systems and accelerating access to climate-resilient water, sanitation and hygiene are fundamental to a green and healthy economic recovery from COVID-19.

▲ Funds would be directed at biodiversity protection.

Funds would also be available to address the critical issues raised in the Dasgupta Review: the severe decline in biodiversity, habitat loss, and protect and conserve large areas of the natural world, including rainforest, wetlands, freshwater and ocean life. No funds would be available for fossil fuel exploration or extraction, with all investment in the energy sector directed to solar, wind, geothermal and other renewable energies, facilitating a rapid transition to a zero-carbon global economy.

Countries targeted should be those most off-track for the SDGs and most vulnerable to climate change, including fragile and conflict-affected states, least developed countries and small island development states.

The grant transfers could be provided through existing bilateral and multilateral channels with significant strengthening of the budgets and programmes of international organisations such as the World Health Organisation and UN agencies. This level of transfer would also enable more substantial replenishment of international funds, including those focusing on global health, the environment and climate change, as well as the concessional windows of the multilateral development banks.⁹³

Spending the funds well

Mobilising significant increases in DRM and international public finance requires effective public financial management (PFM) and strong systems to be in place. Good PFM enables the control of public finances, the prioritisation and efficiency of spending, and with sufficient transparency and reporting, the government to be held to account. Civil society has a key role. End Water Poverty's #ClaimYourWaterRights campaign shows how civil society organisations can mobilise members to take on governments and state-contracted third parties who deny people's human rights to safe water and sanitation. This involves engaging service providers and oversight bodies such as regulators, national human rights commissions, parliament and courts.

Having effective systems in place will be crucial to ensure that international funds received are absorbed and well-spent. For those countries in receipt of significant flows for the SDGs and climate adaptation we recommend enhanced levels of transparency and accountability, with oversight from central, local government, parliament and civil society. Ring-fenced national funds, dedicated to resourcing the SDGs, can act as powerful mechanisms and incentives for improving public financial management and spurring sustainable development. Important lessons can be learned on how to ensure successful pro-poor use of funds in countries such as the approaches adopted in Uganda and Tanzania following the Heavily Indebted Poor Countries (HIPC) Initiative.

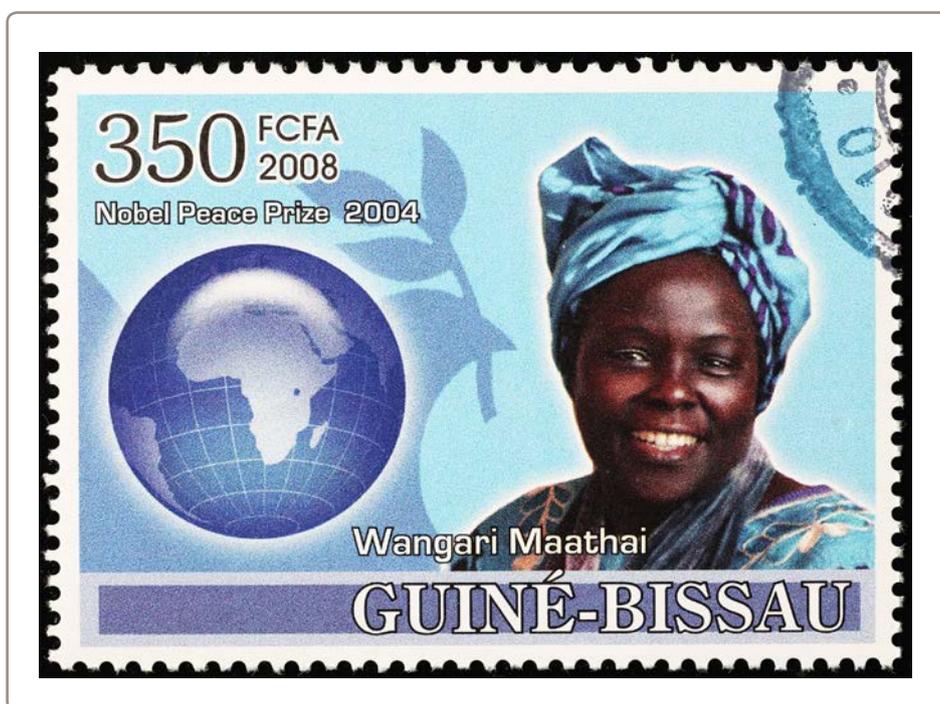


7.4 Nobel Peace Laureate Wangari Maathai

Nobel Peace Laureate Wangari Maathai, who dedicated her life to development and the environment in Africa, described the experience of many people and communities like travellers who have boarded the wrong bus, travelling on the wrong path, while allowing others (often their leaders) to lead them further from their destination.⁹⁴ She also commented that: “In the course of history, there comes a time when humanity is called to shift to a new level of consciousness, to reach a higher moral ground. A time when we have to shed our fear and give hope to each other. That time is now.” These words seem more than ever relevant in 2021.

The two recommendations in this final section—renewed action on DRM and an increased annual international grant transfer from high-income countries—focus on the SDGs and the Paris Climate Agreement and offer a way forward to a more equitable and sustainable future. Given the current circumstances of COVID-19, growing inequality and environmental crises, we see them as consistent not only with the spirit of global partnership called for in SDG17, but equally importantly aligned with the calls for economic, social and environmental justice and the decolonisation agenda so powerfully expressed in the Black Lives Matter, # Me Too and Climate Justice movements.

spatuletail, Shutterstock



▲ Commemorative stamp of Nobel Peace Laureate, Wangari Maathai.

8. End notes

- ¹ See for example the World Bank's costing of WASH and UNESCO's costing of education SDG targets in 2015
- ² <https://irp-cdn.multiscreensite.com/be6d1d56/files/uploaded/151112-SDG-Financing-Needs.pdf>
- ³ https://irp-cdn.multiscreensite.com/be6d1d56/files/uploaded/FINAL_SDG%20Costing%20%26%20Finance%20for%20LDCS%2028%20Oct.pdf; <https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2019/01/18/Fiscal-Policy-and-Development-Human-Social-and-Physical-Investments-for-the-SDGs-46444>
- ⁴ https://s3.amazonaws.com/sustainabledevelopment.report/2019/2019_sustainable_development_report.pdf
- ⁵ [https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(20\)30121-2/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(20)30121-2/fulltext)
- ⁶ This is in much the same way as the World Bank's 2019 'Beyond the Gap' report, which looks at the cost-effectiveness of different interventions in other sectors, comparing the costs and benefits of dirt roads versus paved rural roads.
- ⁷ For safe water, the 2017 currently-served WHO/UNICEF figure (5.3 billion people) is higher than the Development Initiatives (DI) estimate (4.9 billion). For safe sanitation, the 2017 currently served WHO/UNICEF figure (3.4 billion) is lower than the DI estimate (4.2 billion). Both analyses use country urban and rural estimates from the Joint Monitoring Programme to build a global figure. The reasons for differences lie in the methodology for addressing missing and outdated data: (i) for countries which have pre-2017 data only, WHO uses a linear regression to generate 2017 coverage estimates by service type, whereas DI uses a logistic regression by overall coverage level to consider the non-linear marginality of increasing service; (ii) for countries which have no data, WHO uses a population-weighted regional average, whereas DI weights by country income group and subnational area; (iii) for countries which have basic-level coverage data but no safe-level, WHO uses a regional average in place of the safe-level figure, whereas DI estimate the weighted regional relationship between basic and safe coverage, and apply this ratio to the basic-level estimate.
- ⁸ WaterAid Country Program and Member offices which provided data for this model are as follows: Zambia, Mozambique, Cambodia, Timor-Leste, Papua New Guinea, Australia and United Kingdom.
- ⁹ United Nations World Urbanisation Prospects provides population projects for both urban and rural areas for 233 economies.
- ¹⁰ This approach was based on the observed behaviour of WASH implementation in a range of economies derived from WaterAid country case studies.
- ¹¹ This figure is based on the application of the costing model to existing levels of coverage.
- ¹² It is striking that this amount is higher than what is needed for new capital costs and new O&M costs combined. It shows how vital O&M expenditure is for achieving and sustaining safely managed and climate resilient outcomes.
- ¹³ As a comparison, one high-income country, the UK, is estimated to be spending £271 billion in response to COVID-19, with a further £89 billion loaned or guaranteed. This is according to the National Audit Office and is based on policies up to December 2020. The March 2021 budget forecasts borrowing of £355 billion in the current financial year (April 2020 to April 2021). It shows that there is finance available when the political will is in place. <https://www.bbc.co.uk/news/business-52663523>
- ¹⁴ Probabilistic projections from United Nations Population Division indicate that the annual rate of global population growth will decrease strongly between 2020 and 2030, particularly in low- and lower middle-income economies.
- ¹⁵ Thames Water, 2018. Who will pay for the Thames Tideway Tunnel? Available online: <https://corporate.thameswater.co.uk/about-us/thames-tideway-tunnel/who-will-pay-for-it>
- ¹⁶ The Infrastructure Consortium for Africa, 2018. Infrastructure Financing Trends in Africa – 2017. Available online: https://www.icafrica.org/fileadmin/documents/Annual_Reports/IFT2017.pdf
- ¹⁷ A bar at 100% signals that the country is allocating the budget estimated as necessary. Several UMICs surveyed achieved or surpassed this threshold (Figure 10), but most LICs and LMICs allocated less than 50% of total requirements (Figure 9).
- ¹⁸ Realising SDG 6 hinges on mainstreaming WASH and WASH financing, Bangladesh. UNICEF, PPRC and WaterAid (2019).
- ¹⁹ 'Decoding the Priorities, An Analysis of Union Budget 2020-21', Centre for Budget and Governance Accountability. <http://www.cbgaindia.org/wp-content/uploads/2020/02/Decoding-the-Priorities-An-Analysis-of-Union-Budget-2020-21-1.pdf>
- ²⁰ WaterAid case study on Ethiopia
- ²¹ 2019 Concertation sectorielle des acteurs de l'eau et de l'assainissement.
- ²² See Box 6 for discussion on data classification and reporting of ODA to the WASH sector.
- ²³ These figures include technical and financial data. For some donor countries, such as Germany, significant amounts of ODA benefit donor companies and expertise.
- ²⁴ See for example <https://www.theguardian.com/global-development/2020/nov/25/zambias-default-fuels-fears-of-african-debt-tsunami-as-covid-impact-bites>.
- ²⁵ See the Annex for methodology.
- ²⁶ Argentina, Brazil, China and Colombia combined totalled 69% of OOF funding channelled to UMICs.
- ²⁷ These figures illustrate how ODA and OOFs significantly outweigh Private Development Assistance but are small compared to the financing gaps identified above. They suggest that there will be major benefits in supporting developing countries to get much better ODA deals, in terms of quantity and quality.
- ²⁸ <https://www.aiddata.org/data/chinese-global-official-finance-dataset>
- ²⁹ For more information on other providers estimated level of development cooperation see <https://www.oecd-ilibrary.org/sites/18b00a44-en/index.html?itemId=/content/component/18b00a44-en#section-d1e21043>
- ³⁰ Financing water and sanitation in partner countries, OECD.
- ³¹ <https://csr.fidelitybank.ng/projects/>
- ³² TrackFin Initiative: Mapping financial flows in WASH Final Report, India.
- ³³ <https://issuu.com/oecd.publishing/docs/amounts-mobilised-from-the-private-sector-by-dev-fi>
- ³⁴ https://ppp.punjab.gov.pk/WASTE_WATER_LAHORE
- ³⁵ <https://www.oecd.org/development/making-blended-finance-work-for-sdg-6-5efc8950-en.htm>
- ³⁶ <http://data.imf.org/?sk=E5DCAB7E-A5CA-4892-A6EA-598B5463A34C> and <https://globalindex.worldbank.org/>
- ³⁷ <https://www.wsp.org/sites/wsp/files/publications/WSS-9-Case-Studies-Blended-Finance.pdf>
- ³⁸ <https://www.thesff.com/system/wp-content/uploads/2019/11/Cambodia-rural-san-DIB-long-fact-sheet.pdf>
- ³⁹ These figures are from the Climate Finance Policy Initiative: <https://climatepolicyinitiative.org/wp-content/uploads/2019/11/2019-Global-Landscape-of-Climate-Finance.pdf>
- ⁴⁰ Mitigation activities reduce the production of greenhouse gas emissions while adaptation enables countries to adapt and build resilience to the current and future impacts of climate change.
- ⁴¹ The Copenhagen Accord: <https://unfccc.int/sites/default/files/resource/docs/2009/cop15/eng/11a01.pdf>
- ⁴² <https://devtracker.dfid.gov.uk/projects/GB-1-203444>
- ⁴³ Box 1 above shows the additional costs required to ensure water and sanitation infrastructure is climate-resilient.
- ⁴⁴ <https://www.africa.undp.org/content/rba/en/home/blog/2019/how-africa-can-improve-mobilization-of-climate-finance-for-susta.html>
- ⁴⁵ See UNFCCC 2018 BA technical report on BA for an overview of access challenges.

- ⁴⁶ Tax potential estimates relate to several factors, such as the structure of the economy and other enabling environment issues (e.g. taxpayer trust/compliance). The effort refers to the scenario where the government reaches the stated potential by 2025 from the base year of 2018.
- ⁴⁷ Countries below the per capita averages for LICs and LMICs move over time up to 2025 to reach the average.
- ⁴⁸ Based on average per capita spending figure for LICs and LMICs.
- ⁴⁹ These have been put on hold due to COVID-19.
- ⁵⁰ The UK's Foreign, Commonwealth and Development Office (FCDO) formerly took over responsibility for UK ODA from the Department for International Development in September 2020.
- ⁵¹ To note, the sharp falls for later years reflects plans and projects that have not been finalised rather than decisions to reduce ODA to these levels.
- ⁵² https://www.oecd-ilibrary.org/development/oecd-development-co-operation-peer-reviews_23097132
- ⁵³ The UK Government committed in 2019 to double its funding through the International Climate Fund (ICF) to at least £11.6 billion between 2021 and 2025, with an allocation process to confirm splits between government departments for 2021-22. The ICF supports developing countries to limit their greenhouse gas emissions and adapt to the impacts of climate change. It is expected that this commitment will remain in place despite the Government's decision to reduce the ODA budget to 0.5% of GNI.
- ⁵⁴ https://irp-cdn.multiscreensite.com/be6d1d56/files/uploaded/FINAL_SDG%20Costing%20%26%20Finance%20for%20LIDCS%2028%20Oct.pdf
- ⁵⁵ <https://www.diplomatie.gouv.fr/en/french-foreign-policy/climate-and-environment/sustainable-development-environment/article/french-policy-on-water-and-sanitation>
- ⁵⁶ See Uganda's National Water & Sewerage Corporation's Five Year Strategic Direction, 2016-2021.
- ⁵⁷ Sanitation and Water for All, How can the financing gap be filled? 2017. World Bank, UNICEF. These figures are for 2012 and 2010 but give a sense of the situation.
- ⁵⁸ ADB and AfDB statements made at the SWA Finance Ministers' Meetings in November and December 2020.
- ⁵⁹ <https://www.imf.org/external/pubs/ft/fandd/2019/12/green-bonds-offer-lessons-for-sustainable-finance-beschloss.htm>
- ⁶⁰ The Sustainable Development Goals report, 2020.
- ⁶¹ USAID describe DRM as "the process through which countries raise and spend their own funds to provide for their people". DRM the "tax" part of the three T's is required to provide public finance for investing in WASH infrastructure and services.
- ⁶² For a summary, see WaterAid's Common Purpose, Common Future, 2020.
- ⁶³ Recent trends, highlighted in WaterAid's [Raising the high water mark for WASH aid](#), October 2020, show that OECD donors have instead been increasing the loan percentage of total ODA.
- ⁶⁴ <https://washmatters.wateraid.org/publications/just-add-water-climate-finance>
- ⁶⁵ The OECD's Creditor Reporting System (CRS) and the International Aid Transparency Initiative (IATI) websites.
- ⁶⁶ These issues are discussed in detail in a previous WaterAid report [Releasing the flow](#).
- ⁶⁷ SWA Finance Handbook, 2020.
- ⁶⁸ [Raising the high water mark for WASH aid](#), October 2020.
- ⁶⁹ The IDC has called for urgent [debt cancellation](#) for poor countries.
- ⁷⁰ The former Nigerian dictator Abacha placed many millions of dollars of stolen funds in bank accounts outside of Nigeria. The UK is estimated to hold US\$30million of Abacha's stolen money, France US\$114m and Jersey US\$18m. See this [BBC report](#).
- ⁷¹ See for example https://washmatters.wateraid.org/sites/g/files/jkxoof256/files/tackling-the-water-sanitation-and-hygiene-sustainability-crisis-the-urgent-need-for-action_0.pdf
- ⁷² See for example, Selim Jahan, Director of UNDP's Human Development Report Office <http://hdr.undp.org/en/content/human-development-report-%E2%80%93-personal-intellectual-journey>
- ⁷³ The Economics of Biodiversity: The Dasgupta Review, 2021.
- ⁷⁴ See for example UNCTAD, 2014, World Investment Report; Schmidt-Traub, 2015, Investment Needs to Achieve the SDGs; Manuel et al., 2018, Financing the End of Extreme Poverty.
- ⁷⁵ For context, although not all governments have costed their Nationally Determined Contributions under the Paris Agreement, the total financing needs are likely to be more than US\$4.4 trillion.
- ⁷⁶ The brainchild of US Secretary of State George C. Marshall, whom it was named after.
- ⁷⁷ De Long and Eichengreen, 1991; Eichengreen, 2010.
- ⁷⁸ Such a comparison has been made by others, including in Al Gore's Earth in Balance (1992), and more recently in a speech by HRH The Prince of Wales to mark the start of Climate Week NYC, 2020.
- ⁷⁹ <https://blogs.worldbank.org/voices/4-ways-low-income-economies-can-boost-tax-revenue-without-hurting-growth>
- ⁸⁰ IMF, 2020, The Evolution of Public Debt Vulnerabilities in Lower Income Economies.
- ⁸¹ SDSN, 2018, Closing the SDG budget gap.
- ⁸² From mineral rights to human rights, Zambia case study, WaterAid, 2018.
- ⁸³ <https://www.theguardian.com/commentisfree/2020/jul/16/eu-tax-avoidance-big-companies-ireland-apple-state-aid>
- ⁸⁴ <https://www.worldbank.org/en/results/2019/09/09/mobilizing-tax-resources-to-boost-growth-and-prosperity-in-sub-saharan-africa>
- ⁸⁵ The Overseas Development Institute found that of all LIDCs, only Tajikistan could cover the full costs of health, education and social protection sectors, even if taxation were raised to maximum feasible level.
- ⁸⁶ Five Development Assistance Committee members met the target in 2018.
- ⁸⁷ In 2019 global Gross Domestic Product (GDP) was US\$88 trillion and OECD GDP US\$54 trillion (World Bank, nominal GDP).
- ⁸⁸ The Marshall Plan, officially called the European Recovery Programme (ERP), was a United States of America (USA) programme enacted in 1948 to support the economic recovery of western and southern Europe after the Second World War. Led by US Secretary of State, George Marshall, it ran from April 1948 to December 1951 and during this time provided around US\$13 billion to 17 countries, helping to restore industrial and agricultural production, financial stability and expand trade. Most of the aid was provided in the form of grants. The Organisation for European Economic Cooperation was established in France in 1948 to run the programme and this contributed to a new era of cooperation in Europe and developed countries and the creation of the Organisation for Economic Co-operation and Development (OECD) in 1961.
- ⁸⁹ <https://www.sipri.org/media/press-release/2020/global-military-expenditure-sees-largest-annual-increase-decade-says-sipri-reaching-1917-billion>
- ⁹⁰ <https://www.spacefoundation.org/2020/07/30/global-space-economy-grows-in-2019-to-423-8-billion-the-space-report-2020-q2-analysis-shows/>
- ⁹¹ Zucman et al, 2017, Who Owns the Wealth in Tax Havens?
- ⁹² Raising the High Watermark for WASH Aid, shows how even ODA can contribute to the levels of accumulating public debt. ODA for water, sanitation and hygiene rose from \$4.7 billion in 2009 to \$6.9 billion in 2018 – an increase of \$2.1 billion—but all of this was accounted for by loan finance. The Arab Fund, the Asian Development Bank, the World Bank and Japan provided over 80% of their ODA as loans.
- ⁹³ Including for example the World Health Organisation, World Food Programme, United Nations Development Programme, United Nations Environment Programme, UNICEF and environmental funds, such as the Green Climate Fund and Global Environmental Facility.
- ⁹⁴ The Challenge for Africa, Wangari Maathai, 2009.

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6th floor, 20 Canada Square, London E14 5NN | 020 7793 4500 | wateraid.org | wateraid@wateraid.org
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