Report

How to reduce inequalities in access to WASH

Synthesis report

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ODI | **WaterAid**

Cover photo: Woman collects water in Nepal. © Jim Holmes for DFAT.

Acknowledgements

Contents

List of boxes, figures and tables

Boxes

Figures

Tables

Acronyms

CWSA	Community Water and Sanitation Agency
DHS	Demographic and health surveys (DHS)
DP	Development partner
GDP	Gross domestic product
GoG	Government of Ghana
GWCL	Ghana Water Company Limited
IWRM	Integrated water resources management
JMP	Joint Monitoring Programme
LIUCs	Low-income urban communities
MDG	Millennium Development Goal
MIC	Middle-income country
MICS	Multiple indicator cluster surveys
MMDAs	Metropolitan, Municipal and District Assemblies
MPI	Multidimensional poverty index
NGOs	Non-governmental organisations
NRW	Non-revenue water
ODF	Open-defecation free
PEA	Political economy analysis
PPP	Purchasing power parity
PPPs	Public-private partnerships
PPWSA	Phnom Penh Water Supply Authority
PURC	Public Utilities Regulatory Commission
SDG	Sustainable Development Goal
SWAp	Sector wide approach
UNDP	United Nations Development Programme
UNICEF	United Nations Fund for Children
WASH	Water, sanitation and hygiene
WB	World Bank
WDR	World Development Report
WHO	World Health Organisation

Executive summary

This report is part of a global study commissioned by WaterAid, aimed at understanding plausible pathways of change to promote broad-based and equitable access to water, sanitation and hygiene (WASH) services. We conducted a political-economy analysis exploring the incentives, constraints and opportunities, with a focus on the poorest fifth of the population. We looked at three country case studies: urban sanitation in Cambodia; urban water supply in Ghana; and rural sanitation and water supply in Nepal. These studies show varying degrees of progress in WASH coverage for the poorest quintile relative to their progress in terms of poverty and inequality reduction. In this report, we present the synthesis of our findings, and their implications for governments and their partners in working towards achieving water and sanitation for all by 2030 (Sustainable Development Goal 6), and reduced inequalities (Sustainable Development Goal 10).

Our study revealed that, despite positive progress in the past decade, there remain huge disparities in access to improved water and sanitation facilities between the richest and the poorest in particular. Moreover, the case studies of Cambodia, Ghana and Nepal all highlighted that the 'poorest' are not a homogeneous category; their access to services is mediated by the geography of where they live (peripheral and peri-urban areas, or remote rural areas tend to remain unserved), the type of work they do (low-paid and/or temporary jobs oblige people to rent poorly serviced accommodation), and their rights and entitlements (for example in terms of land and property rights and tenure security), all intertwined with group-related and individual-related factors such as ethnicity and religion, gender, age, and disability.

Evidence from our case studies also highlighted that progress on equitable WASH access and progress in reducing wider inequalities are invariably intertwined, but that the relationship does not proceed in a linear way. Some islands of effectiveness are possible within the sector even where there are high levels of prevailing inequality or discrimination. At the same time, the structural factors that shape levels of inequality – for example a lack of incentives for elites to respond to peoples' needs and demands – can affect all sectors. Progress on equitable WASH has been driven by a complex interplay of factors, in which trends outside the sector are as important as action within it. These include: a shift towards programmatic support from development partners; instances of high-level political attention that are often responding to wider economic or demographic trends; and action by households enabled by poverty reduction and market development.

To understand the challenges of providing poor people with services, we identify and examine four key relationships between citizens, the government, and service providers: political, social, market, and bureaucratic. Looking at these relationships in turn we identify dynamics that often impede WASH services for poor people: a lack of credible political commitment to serving poor and marginalised groups; collective action problems that impede poor people from getting their demands met; market failures and fragmentation that prevent poor people from exercising power as customers; and incoherent bureaucratic arrangements, that result in insufficient oversight or a lack of clarity about responsibility and autonomy.

Our findings suggest that brokering these relationships means working across multiple groups of stakeholders and forming alliances with different sectors, disciplines and interests. Tackling political relationships is not just about working with politicians. Social relationships cannot be enhanced only at the community level, bureaucratic relationships will not be solved by working with civil servants or service providers, and market relationships go beyond entrepreneurs and customers. With this understanding of interrelationships, we identify entry points to change for those working towards genuinely inclusive WASH:

First, **to strengthen political relationships by increasing the value of policy commitments towards poor and excluded people** – in other words, encouraging political promises to serve the poor to be made, and kept. This should be done initially by focusing support on islands of effectiveness within the sector, to demonstrate to citizens, and politicians, that progress is possible. Influential and experienced political figures may need to be brought on board to help steer reform through. Where patronage or equivalent features of the political environment limit the potential for deeper reform, it may be necessary to build coalitions of interest with other service or infrastructure sectors, to encourage politicians towards more inclusive, credible policy commitments.

Second, **to strengthen social relationships, by raising people's voice and claim for better services,** not only helping them act collectively but also simultaneously helping service providers and government to respond. This entails careful consideration of who needs to be mobilised – for example wealthier as well as poor groups.

Community-based engagement should be complemented with simultaneous advocacy and capacity-building, targeted at government and service providers, to overcome any disincentives to respond to citizen demand once it is mobilised.

Third, **to strengthen market relationships, by making sure water, sanitation and hygiene markets recognise poor people as valued customers**. This means collaborating with entrepreneurs who are already filling gaps in markets, helping them review their business models and identifying opportunities for scaling up. Business-oriented work should be complemented with engagement with government on better regulation and contracting. WASH-focused organisations can also play a role in identifying the major structural barriers to effective WASH markets such as tenure insecurity, and address these through coalitions with other sectors and interest groups, making a series of adaptive, 'small bets' to identify appropriate solutions.

Finally, **to strengthen bureaucratic relationships, by building stronger institutions – within and outside the WASH sector – to protect poor people's interests**. To this end, organisations seeking to support inclusive WASH can act as a conduit and catalyst for better information on service delivery performance for poor and marginalised people. This could be done, for instance, by piloting new methods of data collection (e.g. social media/ SMS surveys), or working with trusted entities and rights groups to help them collect and use information effectively, so that key people in power take it seriously. WASH organisations can also support government and service providers to solve their bureaucratic challenges by helping them engage the right disciplines and expertise.

Key messages

- Research from Ghana, Nepal and Cambodia suggests that reductions in water, sanitation and hygiene (WASH) inequalities have been piecemeal, and depend as much on wider poverty reduction, economic development and demography, as they do on sector efforts.
- Moving beyond this piecemeal progress requires credible policy commitments to universal access, effective collective action between different groups, functional markets and clear systems for implementation and oversight.
- Rather than working with citizens, government, service providers or other groups in isolation, organisations seeking to support inclusive WASH services can act as brokers for a number of key relationships that underpin pro-poor services:
  - reinforcing political relationships, by working with respected leaders and other sectors to enhance the credibility and political value of pro-poor reform;
  - catalysing social relationships, by helping poor and non-poor citizen groups to confront and overcome collective action challenges, while preparing providers to respond;
  - fostering market relationships that work for poor people, by collaborating with entrepreneurs and regulators; and
  - strengthening bureaucratic relationships, by acting as a catalyst, conduit and champion for better data on service inequality, and promoting compelling examples of equitable service arrangements.

1.Introduction

1.1.   Why this study?

Various forms of social and economic inequalities mediate and/or obstruct access to WASH services. Recent multi-country analysis of access by wealth quintiles has shed light on trends of inequalities in access to drinking water and sanitation between rich and poor in rural and urban areas. The analysis from the WHO/UNICEF Joint Monitoring Programme (JMP) reveals that there are still huge disparities in the use of improved water and sanitation facilities between the richest and the poorest – especially for sanitation, where gaps are equally pronounced across urban and rural areas. They also show that, in many countries, progress in access to improved water and sanitation for the poorest quintile is significantly lower than that of the second poorest quintile. For example, access to improved water in urban Senegal increased from 23% to 37% for the poorest fifth of the population between 1990 and 2010; but it jumped from 48% to 78% for the second poorest quintile (WHO/ UNICEF JMP, 2015a). Other inequalities, reflecting geographic location, gender, ethnicity, age, disability or health conditions can similarly exclude access to water and sanitation services, but are often more difficult to monitor and hence address (Stewart et al., 2006; Stewart et al., 2009).

Investments in water supply and sanitation generate wide-ranging economic benefits, and are, therefore, a key tool for poverty reduction (see Slaymaker et al., 2007; Howard and Bartram, 2003). But if they are not targeted to the poor these poverty reduction benefits are reduced. The Millennium Development Goals (MDGs) embedded a recognition that water and sanitation are fundamental pillars of development and poverty reduction. Their successors, the Sustainable Development Goals (SDGs), go a step further and shifted the focus from service delivery to service delivery 'for all', thereby adding a fundamental concern with equity. The challenge is now to turn that change in focus into changes in action.

Our global research aims to try and understand plausible pathways of change to address the persistent inequalities in access to improved water and sanitation services. We particularly focus on the challenges of service delivery for the "poorest of the poor" (i.e. the lowest quintile of the population). Our findings seek to inform the approach of governments, and their development partners, to 'pull the levers' towards achieving SDG 6 on water and sanitation for all by 2030[1], as well as SDG 10 on reducing inequalities.[2]

1.2.   Research approach and methodology

To achieve our aim, we structured the research around five questions:

- What are the main forms of inequality in access to WASH?
- How is progress on equitable WASH access related to progress in reducing wider inequalities?
- What are the sector specific and non-sectoral factors that have driven, or hindered, equitable access to WASH?
- What are the underlying incentives and power relations that underpin these sector specific and non-sectoral factors?
- What are the entry points to change?

We started from the assumption that economic growth and progress in reducing income inequality in developing countries will not automatically transform into universal access to WASH services. Gains in WASH access will occur when several conditions are in place; these will be WASH-sector specific, as well as more broadly linked to the political, economic and social incentives, policies and institutions within a country.

We recognise that there will be different drivers of inequalities, for example based on income, gender, age, disability/health, ideology/religion; and that these will mediate access to WASH services for certain groups of people. The main focus of our study is on income and wealth-based inequalities, as this is where the data are strongest. We nonetheless take into account other forms of

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1   Sustainable Development Goal 6 aims to ensure availability and sustainable management of water and sanitation for all by 2030. It has 8 targets including 6.1 to 'By 2030, achieve universal and equitable access to safe and affordable drinking water for all'; and 6.2 to 'By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.' For more information, see: https://sustainabledevelopment.un.org/sdg6.

2   Goal 10 calls for reducing inequalities in income as well as those based on age, sex, disability, race, ethnicity, origin, religion or economic or other status within a country. The Goal also addresses inequalities among countries, including those related to representation, migration and development assistance. For more information, see: https://sustainabledevelopment.un.org/sdg10.

inequality, and how they mediate access to WASH services, in the political economy analysis component of our study.

Our analytical approach builds on previous ODI-led political economy research exploring the incentives, constraints and opportunities for introducing change in different service delivery sectors including WASH (Harris and Wild, 2013; Mason et al, 2013; Mason et al, 2014 – See Box 1). We also draw on The World Bank's World Development Report (WDR) 2004, *Making Services Work for Poor People* which provided landmark analysis the accountability relationships between citizens, state and service providers (World Bank, 2004). Our study aims to add a complementary focus but also go beyond the WDR 2004 framing, or at least the takeaway messages that many have drawn from it. We suggest that exclusion in WASH needs to be tackled by working simultaneously with different groups of actors – and on the different kinds of relationship that bind them. It cannot be addressed, for example, by working with citizens in isolation to improve their political 'voice', or their power as customers. Nor can it be addressed only by working with service providers, to improve management oversight; nor only with government to improve regulatory compacts. The relationship-oriented framing we propose implies that champions for WASH inclusion need to position themselves as brokers, mediating between the key stakeholder groups and reaching out to other sectors when required.

Methodologically, we adopted a comparative case study approach. Using data on WASH access by wealth quintiles and inequality (the share of income of the bottom 40%

Gini index), and relevance to WaterAid priorities, we selected three country and subsector case studies showing a varying degree of progress in WASH coverage for the poorest quintile relative to their progress in terms of poverty and inequality reduction.

The countries and subsectors selected – urban water in Ghana, urban sanitation in Cambodia, and rural water and sanitation in Nepal – all exhibit some progress in provision for the poorest 20%, but this needs to be accelerated. They have also made strides in poverty reduction and, to some extent, reducing inequalities, though there remain significant structural challenges that will be recognisable and relevant to other countries.

We primarily gathered data for the political economy analysis through key-informant interviews in the course of our fieldwork.[3] In each country, we conducted 15-20 semi-structured interviews with sector experts in government organisations at national and subnational levels, representatives of donor organisations, international and national non-governmental organisations (NGOs), as well as researchers and, where possible, the private sector and civil society. We also conducted field visits and observations of low-income areas, and focus group discussions with community representatives. We presented and discussed the preliminary identification of plausible change pathways with WaterAid country and UK offices, and revised our findings accordingly.

There are inevitably limitations to our approach. We aimed to focus on the poorest quintile of the population to highlight the challenges of service delivery for 'the poorest

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Box 1: Key political and governance factors

Drawing on Harris and Wild (2013), we use a number of 'political and governance factors' that help explain patterns of behaviour between service users, providers and others – offering a degree of specificity while remaining fairly generalizable. These include:

- The strength of **oversight** systems: The extent to which oversight systems effectively link actors along the service delivery chain, expose them to incentives and sanctions set by others, and permit them to deploy incentives and sanctions for others.
- The degree of **coherence** in policies and processes for implementation: in terms of whether they are applied (or can be expected to be applied) in a uniform and integrated manner across time, space and groups of people.
- The extent of capacities for **collective action**: The ability and scope to come together to solve shared problems locally, that cannot be solved alone.
- The presence or absence (and severity) of **rent seeking**: The availability and distribution of rents, i.e. the potential for actors to derive a benefit without contributing productively.
- **The credibility of political commitments**: The extent to which competitive advantage, political or otherwise, can be obtained by making and fulfilling commitments to an electorate or other power base.
- The presence of **moral hazard**: in which some form of insurance insulates actors from the consequences of their decisions, encouraging them to adopt riskier behaviour

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3   The lead researcher spent 5 to 7 days in each country over the period July-October 2016, accompanied by an independent consultant with knowledge and experience of the WASH sector as well as broader poverty-related, political and economic aspects of the context under investigation. The consultants generally supported the selection of respondents and inputted in drafting the interview questions; they also conducted follow-up interviews and data collection and validation when required, and contributed to the writing of the case study reports.

of the poor' in the three country case studies we selected. At country level, however, data and understanding of wealth or income-based inequalities in the WASH sector is limited, resulting in the inevitable risk of talking in general terms about 'poor people'. We nonetheless tried to be as specific as possible and consider overlaps with other forms of exclusion, if not through quantitative data at least through the qualitative narratives emerging from our interviews and observations in country. It should also be noted that for each case study we could only conduct 7 days of fieldwork. This carries obvious limitations in terms of the amount of data and information we could collect. As far as possible, we supplemented primary data collection with desk-based review of key documents and consultations with WaterAid in-country staff and experts. However, we had to make choices and focus on some key issues, leaving others behind – even if relevant to the problem under analysis.

The paper is structured as follows. In section 2, we present a summary of the literature review undertaken as background for this study, to understand wider definitions and trends in income inequality and poverty, as well as inequality in the WASH sector, specifically. Section 3 introduces the case study countries, examining the data on WASH and general inequalities, and considering what drivers help to explain the progress achieved to date.

Section 4 introduces a framework to help structure entry points for organisations seeking to support inclusive WASH. This sets out four categories of relationship – political, social, market and bureaucratic – which commonly exhibit breakdowns to the detriment of poor people (and other excluded groups).

Sections 5-8 present our analysis of common dynamics, and entry points for change, across each of these categories of relationship, drawing on the political economy analysis from the case studies. We close in Section 9 with recommendations, focusing on the potential for organisations like WaterAid, which have their own strong networks, to act as brokers and send the key relationships in a more positive direction.

2. What inequalities?

2.1. Measuring poverty and inequalities

Measuring poverty is a preliminary step to develop solutions to address it: "*by identifying who the poor are and where they are located, poverty measurements can help direct resources and focus efforts more effectively*" (Foster et al. 2013, 2). Poverty can be assessed against indicators such as income, assets or consumption, or other welfare indicators measured in monetary units. More recent poverty indices incorporate multiple dimensions of wellbeing such as health, education and living standards. 4 A common way to measure income-based poverty especially is by fixing a poverty line, below which a person in a given distribution is considered poor. Definitions of poverty lines are essentially based on measuring the differences in prices across countries, known as purchasing power parity (PPP).5 Experts compile standard consumption baskets, and estimate changes in PPP between countries every 5-10 years. The most recent release of PPP conversion factors occurred in 2014, and led to the definition of a new poverty line equalling $1.90 per person per day, in order to preserve the integrity of the goalposts for international targets such as the Sustainable Development Goals and the World Bank's goals of ending extreme poverty by 2030 and promoting shared prosperity (Ferreira et al., 2014).[6]

It is important to note that poverty is not inequality. However, inequality is one factor that can heighten poverty outcomes, including access to basic services and resources; therefore, it is important to consider poverty and inequality in tandem. A common inequality measure to evaluate income distribution is the Gini coefficient, which measures the average or expected difference between pairs of incomes in the distribution, relative to the distribution size. Other measures focus more explicitly on the incomes of the top and bottom of the distribution. For instance, the Palma Ratio, while remaining highly correlated with the Gini coefficient, compares the share of income of the top 10% with that of the poorest 40%. There are also some non-income measures of inequality, including: the Inequality-adjusted Human Development Index, which combines a country's average achievements in health, education and income with how these achievements are distributed within a country's population[7]; the Gender Inequality Index aimed at better exposing differences in the distribution of achievements between women and men[8]; and the Social Institutions and Gender Index, which captures the level of discrimination against women[9] (OECD, 2014).

2.1.1. Absolute and relative inequality

The number of studies on inequality has grown significantly in recent years; most of them focus on relative inequality. On the one hand, they highlight that relative inequality between people has declined at the global level because people's standard of living in many developing countries, including China and India, has been growing faster than in the developed world (e.g. Ravallion, 2004; 2007; Klasen, 2008; Atkinson and Brandolini, 2010; Bosmans et al., 2011). On the other hand, within countries, there is a great deal of variation, with relative inequality declining in around half of the developing countries over the last three decades (Hoy and Samman, 2015).

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4   See, for example, the United Nations Development Programme (UNDP)'s Multidimensional Poverty Index (MPI). Based on the 2007 Alkire-Foster method for measuring multidimensional poverty, the MPI uses a counting approach to identify 'who is poor' by considering the range of deprivations they suffer. The global MPI, used to compare poverty across countries, brings together 10 indicators of health (child mortality and nutrition), education (years of schooling and child enrolment) and standard of living (access to electricity, drinking water, sanitation, flooring, cooking fuel and basic assets). Some critics of the MPI on the one hand highlight that it does not include many dimensions of poverty including conflict, security, domestic and social violence, and intra-household dynamics (Green, 2010). Others, on the other hand point out that it adds up multiple dimensions of poverty into a single composite index, thus 'comparing apples and oranges' (Chen and Ravallion, 2010).

5   Finding a proper functional relation between poverty line and income distribution is a challenging problem, and one that is subject to much controversy. A full review and discussion of poverty lines and global poverty measurements since the 1970s can be found in Ferreira et al. (2014), and Hoy (2015).

6   In 2013, the World Bank reframed its strategy towards 'a world free of poverty' along two main goals: i) end extreme poverty by 2030 (poverty goal), examined through three lenses: the evolution of income poverty based on the international poverty line of $1.90 per person per day, an assessment of person-equivalent income poverty, and a review of the breadth of poverty; and ii) promote shared prosperity, examined on the basis of the latest comparison of household data on the bottom 40% (B40) income growth. See: World Bank (2013).

7   For more information, see: http://hdr.undp.org/en/content/inequality-adjusted-human-development-index-ihdi.

8   For more information, see: http://hdr.undp.org/en/content/human-development-index-hdi.

9   The SIGI takes into account: i) the legislative framework; ii) the de facto situation (customary laws and practices, implementation of laws, etc.) and practices through prevalence data; and iii) attitudinal data. Source: OECD (2014).

These figures seem to contradict the popular discourse on how inequality has been worsening in recent years (e.g. Oxfam, 2016). This is because concerns over worsening inequality actually relate to absolute inequality (Amiel and Cowell, 1999). Hoy (2015) used an 'absolute Palma' to look at how the gap in incomes between the top 10% and bottom 40% has changed over time. The author concluded that to reduce absolute inequality unprecedented rates of relative pro-poor economic growth are required – that is to say that the rate of economic growth among the bottom 40% needs to grow more than twice as fast as the global mean if we are to begin to close the gap (Hoy, 2015).

2.1.2. New approaches to measuring inequalities

Academic research on issues of inequality and poverty has focused disproportionately on matters of description and the methodological intricacies of measurement, rather than the more fundamental conceptual issues of: defining the dimensions of poverty and inequality; characterising the multi-dimensional space in which they are created and maintained; and devising new approaches to remediation that remain viable under a more expansive definition of poverty and inequality (Grusky and Kanbur, 2006: 3). In addition, the generic classification of 'the poor', without any social and/or economic context, is increasingly unsatisfactory as a basis for understanding the dynamics of poverty (see, e.g. Sumner, 2012).

The MDGs and SDGs have brought about a stronger focus on inequality, contributing to a deeper understanding of its causes and consequences, as well as the difference between inequality of opportunity and inequality of outcomes (Brunori et al., 2013; de Barros et al., 2008). The new SDGs recognise the need to 'leave no one behind', and identify a series of target groups who are typically excluded from progress, and are overrepresented across several different indicators of deprivation: elderly people, people with disabilities, ethnic and religious minorities, women and girls, and sexual minorities, among others. They also highlight the overlapping disadvantages faced by individuals or groups that reinforce their exclusion, what some authors have defined as 'intersecting inequalities' (see, e.g. Kabeer, 2010; Lenhardt and Samman, 2015; Bhatkal et al., 2015).[10]

2.2. WASH and inequalities

2.2.1. The international discourse

The MDGs, covering the period 2000-2015, made an important statement on the need to improve access to water and sanitation in developing countries as a key step towards poverty reduction. Furthermore, they were essential in catalysing policies and finances towards these objectives as well as in initiating several regional initiatives, partnerships and coordination arrangements on water and sanitation.[11] The sub-target on water and sanitation encouraged reporting on progress in both rural and urban areas, resulting in improved data collection methods at national and global level.[12] However, critics highlighted that the MDGs are "*silent on discrimination, inequalities and unjustifiable disparities*" (Winkler et al., 2014: 10). The JMP and several authors identified a missing focus on the 'poorest of the poor', masked by using national averages or aggregated information (see, e.g. WHO/UNICEF, 2015b; Brikci and Holder, 2011; Melamed, 2012; Winkler et al., 2014).

In the move to define a post-2015 agenda, a greater focus has been put on integrating equality and non-discrimination into the goals and targets for 2030. The Report of the High-Level Panel on the Post-2015 Development Agenda, recommended the integration of inequalities as a cross-cutting issue, proposing that "*[t]argets will only be considered achieved if they are met for all relevant income and social groups*" (High-Level Panel, 2013). Amongst the framework of 17 SDGs that the UN General Assembly adopted on 10th September 2015, there is a dedicated goal on water and sanitation. Relevant targets for WASH, which variously mention universalism and equity, include 6.1 (drinking water), 6.2 (sanitation and hygiene), and 6.3 (wastewater treatment). "Reducing inequality within and among countries" is meanwhile the specific focus of SDG 10, even as it is simultaneously supposed to cut across all the other SDGs themes, including water and sanitation.[13]

2.2.2. What WASH inequalities get measured?

The JMP database remains the most common and widely utilised source of information on access to water and sanitation. The JMP compiles and analyses data on all UN member States

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10 The concept of intersecting inequalities recognises that poverty is strongly associated with identities that are ascribed at birth – race, caste, gender and ethnicity – and that are most pronounced when they intersect with disadvantaged locations and economic class (Kabeer, 2010). The impact of overlapping disadvantage was also analysed in the 2012 World Development Report on Gender Equality and Development, which highlighted the persistence of gaps in health, education and economic outcomes among women and girls who face other forms of exclusion, such as geographic remoteness, ethnic minority status, and disability (World Bank, 2012).

11 For example, several regional policy initiatives emerged on sanitation in Africa (AFRICASAN), East Asia (EASan), and Latin America (LATINOSAN). In the mid-2000s, the UN-Water was established as the first of a new model of UN system coordination arrangements. In the same period, a call to action by the UK 's Department for International Development (DfID) led to two linked initiatives: the Global Annual Assessment of sanitation and drinking water (GLAAS) and the Sanitation and Water for All (SWA) partnership.

12 A comprehensive account of the achievements and limitations of the MDG process, structure, content, implementation and enforcement is offered by Fehling et al (2013).

13 See: http://www.un.org/sustainabledevelopment/sustainable-development-goals/.

and UN-recognised countries and territories for which data are available (190 as of 2014), and produces biennial coverage reports (Bartram et al., 2014).[14] The basic analytical unit of the JMP method is at the household level; households are categorised according to the types of drinking water source and sanitation facilities they use.[15] Typically, JMP data are disaggregated between rural and urban, allowing very broad analysis of spatial inequalities. Since 2004, JMP reports have also disaggregated access data on the basis of wealth quintiles (2004, 2008, 2010, 2014) and conducted supplementary analyses, for example looking at water collection and household water treatment practices, including the burden of time spent fetching water (2008, 2010, 2012), disposal of child faeces (2008), and use of bottled water (2010).

JMP wealth quintile analyses have significantly advanced understanding of wealth-based inequalities. The data derives from demographic and health surveys (DHS) and multiple indicator cluster surveys (MICS), though the approach to estimation has some limitations.[16]

Especially since the 1990s, several authors have attempted to come up with other analytical methods and sets of indicators.[17] For example, researchers at the University of North Carolina at Chapel Hill (Cronk et al., 2015) developed an index that compares country performance in realising universal WASH and assesses performance in terms of water access, water equity, sanitation access, and sanitation equity.[18] The Equity measure in the index available to date is based on the gap between urban and rural access. The latest two UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) reports also made an attempt at measuring equity in the delivery of water and sanitation services (GLAAS, 2010; 2014).[19]

2.2.3. What other WASH inequalities should we measure?

WaterAid's review of the literature on inequalities and WASH identified the following types of inequalities as relevant: spatial inequalities (e.g. those experienced by communities in remote and inaccessible rural areas and slum-dwellers in urban and peri-urban areas); economic inequalities; group-related inequalities (e.g. those based on ethnicity, race, nationality, language, religion and caste); and individual-related inequalities (e.g. those based on sex/gender, age, disability, health conditions, and menstrual hygiene management) (Wilbur and Dobias, 2015). While wealth-related and spatial inequalities are increasingly measured in crude terms, other forms of WASH inequality are rarely effectively measured.

Spatial inequalities: Mapping the geographical distribution of WASH at policy relevant scales can help make visible those deprived subgroups that would otherwise be hidden within national statistics (Pullan et al., 2014). The current monitoring frameworks for the WASH sector, internationally and nationally, generally collect and disaggregate data by urban and rural areas. However, intra-urban inequalities, and particularly data and information on people living in slums or informal settlements, deserves more attention (see e.g. Kilroy, 2007; Martinez, 2009; Hawkins et al., 2013). Another categorisation to consider is smaller administrative units, especially for vulnerable areas such as districts with high levels of poverty (WHO/UNICEF, 2014).

Economic inequalities: Furthermore, domestically, WASH national monitoring frameworks have struggled to capture wealth-based inequalities. Monitoring systems typically estimate coverage based on assumed levels of provision, according to the infrastructure put in place, rather than the service actually received. A different monitoring and evaluation system in WASH programming would be needed to measure the extent to which services are used by different groups within communities (WHO/UNICEF, 2014). The 2014 WHO/UNICEF JMP update, for example, suggested an expanded WASH monitoring framework using new sources of data, such as information

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14 The last JMP report, issued in 2014, provided drinking water coverage estimates for 199 and sanitation coverage estimates for 193 countries and territories (representing 98.7% and 97.8% of global population).

15 It should be noted that these categories and their definitions have evolved over time. In 2014 it included the following classes: protected and unprotected wells; protected and unprotected springs; piped into dwelling, plot or yard; public tap or standpipe; pit latrine with or without slab; ventilated pit latrine; and open pit. Source: Bartram et al. (2014).

16 Standard asset index measures based on household goods and infrastructures typically use water and sanitation access as a component. This can create a bias, with WASH being both an independent and dependent variable. In addition, the traditional way of computing wealth indexes uses principal component analysis, but this approach assumes that variables are continuous and normally distributed; instead, most variables included in the analysis tend to be categorical or binary variables. This tends to create highly skewed distributions.

17 For a full list see Kayser et al. (2013).

18 On the basis of data compiled by the JMP, the authors used frontier analysis to identify best-in-class performance at different levels of water and sanitation coverage. The most recent rate of change from each country is compared to best-in-class performance among countries at similar levels of water and sanitation coverage to generate a benchmarked value; the index value is then the sum of the component benchmarked values. See: Cronk et al. (2015).

19 Data on household wealth indices as measured by Demographic and Health Surveys (DHS), and the level of service used were used to analyse the proportion of low-income households that receive each level of service. In turn, this could offer an indication of the equity of different types of service to the poor (GLAAS, 2014).

from service providers and regulators and user-reported data (WHO/UNICEF, 2014).[20]

Individual and group-related inequalities: Only in certain country- or context-specific cases, is data on access to WASH services disaggregated along indicators of individual and group-related inequalities such as gender, age, race, language, religion, etc. (Van de Lande, 2016). Part of the problem lies with the reliance on national household surveys and censuses for the collection of WASH data. Monitoring of disadvantaged groups can be challenging when they form a small proportion of the population, and are hence difficult to reach through conventional household surveys. In addition, responses are made at the level of the household, which makes it impossible to accurately measure intra-household inequalities such as sex, age or disability (WHO/UNICEF, 2014). We found a large body of qualitative literature around gender- and poverty-specific approaches (see, e.g. Cortobius and Kjellen, 2014). Researchers and practitioners are also dedicating more efforts to studying the barriers to WASH access faced by people with disabilities, chronically ill and elderly people (see e.g.

WaterAid's 'Undoing Inequity' research stream in Wilbur and Dobias, 2015).

Taking into account the above debates and state of the art on measuring inequalities with a focus on the delivery of and access to water and sanitation services, this study focuses on wealth/income inequality. We used the wealth quintile measure as a proxy to examine trends of progress and persistent inequalities in access to improved water and sanitation services. We acknowledge limitations in using wealth quintiles, relating to the choice of assets included in the measure. Also, not all surveys include data on all of the selected criteria, and the prices of assets and the ability to purchase them varies across countries and time, even after controlling for differences in purchasing power. Due to these factors wealth quintiles should be considered with some caution in cross-country and inter-temporal comparisons (Rutstein and Staveteig, 2014). However, the wealth quintile data remains the most widely available and provides value in countries that lack reliable data on traditional indicators or economic status, income and expenditure. In addition, wealth quintile breakdowns of WASH access are readily available for many low and middle income countries, through the JMP

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20 The new WHO/UNICEF JMP framework suggests that, in order to achieve the proposed post-2015 targets, measures encompassing hygiene behaviours and WASH access beyond the household setting are required, and goes ahead suggesting a whole sector of new indicators and data collection methods to this end. For more information, see: WHO/UNICEF (2014).

3. Drivers of progress in water and sanitation service delivery

3.1. Overview of country case studies

To understand what drives change towards more inclusive WASH service delivery we looked at three countries: Cambodia, Ghana and Nepal. Table 1 presents a summary of key economic, poverty, inequality and WASH indicators for the three countries examined.

3.1.1. Urban sanitation in Cambodia

Coming out of three decades of devastating civil conflict, Cambodia has experienced sustained economic growth since the early 2000s, accompanied by remarkable poverty reduction (Sobrado et al, 2014). In the period 2004-2011, poverty rates in Cambodia decreased from 53.2% to 20.5%, surpassing all expectations and exceeding the Millennium Development Goal (MDG) target. However, this economic growth has also been narrowly based: the poor "*did not go very far: most moved from being poor to being vulnerable*" (Ibid, 16). Poverty levels today remain high especially in rural areas, where about 70% of Cambodians live. In the capital Phnom Penh, rapid poverty reduction took place between 2004 and 2007, mostly as a consequence of the expansion of salaried employment (from 22.6% in 2004 to 30.3% in 2011), while in other urban areas, it only started after 2009 (Ibid, 26).

Whether or not poverty reduction trends in Cambodia have resulted in decreased inequality depends on the definition and methods used to assess the latter. The Gini Index has decreased from 0.33 in 2004 to 0.31 in 2011. However, the gap between the rich and the poor has increased in absolute terms (Sobrado et al, 2014). The average per capita daily consumption of the richest 20% of the population is more than 8 times that of the poorest 20%. "*The gap between the rich and poor is among the widest in Asia, a reality that is immediately apparent to any visitor encountering the designer boutiques and SUV snarls of Phnom Penh at peak hour*" (Strangio 2014, 139). Today, Cambodia's economy is controlled by a '*sprawling network of politicians, military brass, and business families arranged in vertical khsae, or strings of patronage emanating from*

Table 1: Key economic, poverty, inequality and WASH indicators for Cambodia, Ghana, and Nepal.

	Cambodia	Ghana	Nepal
Population (total)	15.6 m (2015)	27.4 m (2015)	28.5 m (2015)
Population growth (annual %)	1.6% (2015)	2.3% (2015)	1.2% (2015)
GDP growth (annual %)	7.0% (2015)	3.9% (2015)	3.4% (2015)
Absolute poverty rate (poverty headcount ratio at national poverty lines as % of population)	17.7% (2012)	24.2% (2012)	25.2% (2010)
Inequality: Gini index	30.8 (2011)	42 (2013)	32.8 (2010)
Access to improved water	100% (2015)	89% (2015)	92% (2015)
Urban water	100% (2015)	93% (2015)	91% (2015)
Rural water	100% (2015)	84% (2015)	92% (2015)
Access to improved sanitation	42% (2015)	75% (2015)	64% (2015)
Urban sanitation	22% (2015)	93% (2015)	93% (2015)
Rural sanitation	37% (2015)	54% (2015)	56% (2015)

Source: For data on population, growth, poverty and inequalities: World Bank (http://databank.worldbank.org/data/home.aspx); for data on water and sanitation access: JMP data (http://www.wssinfo.org/).

Prime Minister Hun Sen and his close associates' (Ibid, 134). This 'Hunseconomics' has succeeded in '*forging a stable pact among Cambodia's (powerful) ruling elites, but has otherwise done little to systematically tackle the challenges of poverty and development*' (Ibid).

Against a backdrop of on-going strong economic growth and increasing household consumption over the past decade, access to improved water and sanitation services has increased considerably, most notably in urban areas. According to the latest JMP update, Cambodia achieved complete coverage for improved water supplies in urban areas in 2015.[21] For sanitation, the total number of people with access to improved facilities has risen from 3% to 42% between 1990 and 2015. In urban areas, 88% of Cambodians had access to improved facilities and open defecation has been eliminated as of 2015, as compared to 19% in 1990 (WHO/UNICEF JMP, 2015c).

Progress has occurred across all wealth quintiles, although the relative pace of change in each quintile differs between the subsectors. For the poorest 20% living in urban areas, access to improved sanitation has increased from 0 to 36% between 1990 and 2015. Yet despite the impressive gains in access for the poorest, disparities remain especially between urban and rural populations, and between the poorest and better-off groups of the society. The 36 percentage point increase in urban sanitation coverage for the poorest quintile is less than half that experienced by the second poorest quintile (82% in

2015 against 0% in 1990) (see Figure 1). Universal access to sanitation is now enjoyed by the richest quintile in urban areas (WHO/UNICEF JMP, 2015d).

Some categories of people have not benefited from urban progress in general, and progress in terms of sanitation (and other basic) service delivery in particular. This can be attributed to several factors including: the geography of where they live (peripheral and peri-urban areas tend to remain unserved; access to improved sanitation is estimated at 100% for Phnom Penh, it is only 75% in other cities): the type of work they do (low-paid and/or temporary jobs oblige people to rent poorly serviced accommodation); and other social factors such as gender, age, and disability.

3.1.2. Urban water supply in Ghana

Over the past 20 years, Ghana has successfully transitioned from authoritarian rule to democracy, and has undergone a series of economic reforms which kick-started strong and sustained economic growth. Ghana's GDP per capita almost doubled between 1990 and 2012, allowing the country to achieve middle income (MIC) status in 2010 and transforming it into the 'poster-child' for economic

Figure 1: Estimated trends of urban sanitation coverage by wealth quintile in Cambodia, 1995-2012
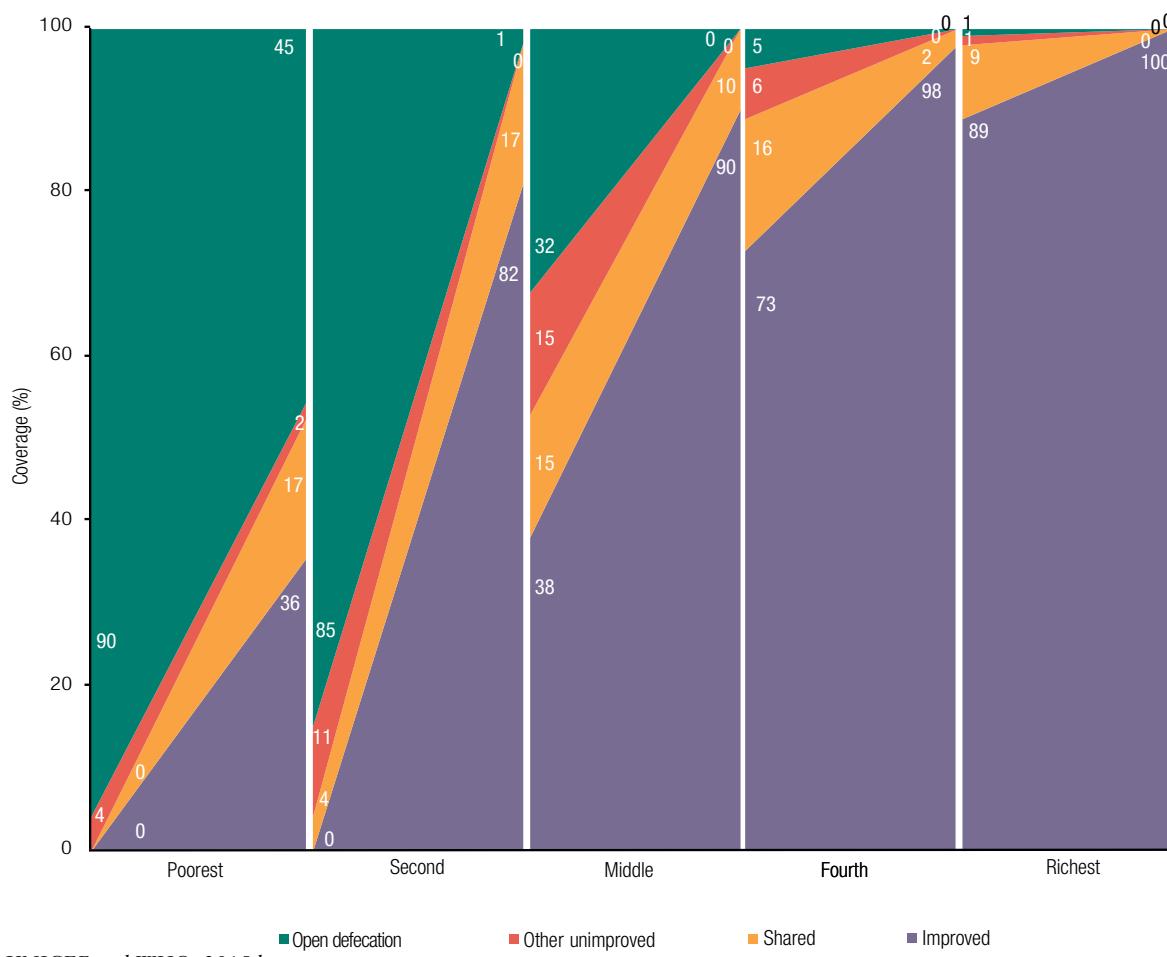
Source: UNICEF and WHO, 2015d.

21   However, data from the 2013 Cambodia Inter-Censal Population Survey and Cambodia Socio-Economic Survey, however, highlight that 8% of the population in urban areas are still defecating in the open, and 3% use some form of unimproved sanitation (NIS 2013; 2014).

reform in Africa (Lindberg, 2010; in: Lenhardt et al., 2015). These achievements have been accompanied by impressive gains in terms of poverty reduction. Ghana's national level of poverty fell by more than half (from 57% to 24%) between 1992 and 2013. The country has achieved dramatic gains in living standards, public health and educational attainment, and consumption has increased substantially among the bottom 40% of the consumption distribution (Molini and Pasci, 2015). However, the serious external and internal macroeconomic shocks that have affected Ghana since 2012 have also contributed to a sharp rise of the price of non-food items, hitting urban households particularly hard and raising concerns about the country's future growth prospects (Molini and Pasci, 2015).

In addition, poverty reduction has not gone hand in hand with inequality reduction. Inequality has increased in Ghana since the 1990s - the Gini index worsened from 0.38 in 1991 to 0.43 in 2005 (World Bank 2016a) and stood at 0.42 in 2013. Inequalities in household consumption widened between 1998 and 2005 as the consumption share of the poorest quintile of the population declined steadily from 7% to 6%, while the share of the top quintile increased from 45% to 47% (Molini and Pasci, 2015). A recent analysis of the distributional changes that occurred in the past two decades in Ghana suggested that they hollowed out the middle of the Ghanaian household consumption distribution and increased the concentration of households around the highest and lowest deciles (Clementi et al., 2016). Large spatial disparities also persist. The highest levels of poverty are registered between certain regions, especially in the North of the country, such as the Upper West Region.[22]

These trends for poverty and inequality overall are reflected in trends for the WASH sector. According to the World Bank, the poverty reduction achievements of the 1990s and 2000s have been accompanied by a substantial improvement in access to basic household services, such as sanitation, electricity and clean drinking water (Molini and Pasci., 2015). The 2015 UNICEF and WHO's JMP data for Ghana, indicates that access to improved water sources has increased from 56% in 1990 to 89% in 2015. Coverage has increased from 84% to 93% in urban areas, and from 39% to 84% in rural areas.

However, while access to 'improved' water sources[23] in Ghana's urban centres has increased overall, this is largely due to access to sources other than piped household connections, including tapstands and protected groundwater sources. According to the most recent nationally representative survey, 43% of urban households use sachet water for drinking, 23% use tapstands, 13% use tube wells, boreholes or protected wells, and 16% receive water piped into their dwelling, yard or plot (GSS et al. 2015).[24] According to the JMP, the percentage of households receiving water piped into their premises fell from 41% to 32% in the period 1990-2015. Partly this is about urbanisation – in numeric terms, Ghana increased access to water piped to premises, from 2.2 million people to 4.7 million. The declining share of coverage from water piped into premises therefore represents the utility's inability to keep up with urban population growth, rather than an absolute decline.

In terms of wealth-related WASH inequalities, between 1995 and 2012, the lowest quintile in urban areas experienced the largest percentage point gain in access to improved sources (from 69% to 90%). It is also the only quintile in which access to piped water connections appears to have gone up, although negligibly from 7% to 10%, and starting at a low base from which it might be easier to achieve at least some progress. The remaining 18 percentage point gain can be attributed to access to other improved sources of water (WHO/UNICEF JMP 2015e; see Figure 2, overleaf).

3.1.3. Rural water supply and sanitation in Nepal

Despite a modest average per capita growth rate of 2.5% after the end of the Maoist conflict in 2006, Nepal has experienced remarkable poverty reduction in both income and non-income indicators in the last two decades. Using the international poverty line of $1.25 per day, the incidence of poverty has declined steadily from 68% in 1996 to 53% in 2004 and 25% in 2011 (ADB, 2013), allowing Nepal to meet the MDG target of halving absolute poverty. The country also met targets on infant mortality, under-five mortality and on the expansion of water supply, and there was some progress in the sanitation sector.

Inequality in Nepal increased between 1996 and 2004, but then narrowed in 2011 and has remained fairly low and stable since then. The Gini coefficient widened from 0.34 to 0.41 between 1996 and 2004, then went down to 0.33 in 2011. Rural inequality in the country was lower than urban inequality and both followed the national trend of registering an increase between 1996-2004 followed

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22 According to Molini et al. (2015), whereas both the poverty rate and the absolute numbers of the poor have declined in the more populous southern and central regions, the number of the poor has risen in the Northern Region and Upper West since 1991. As a result of these divergent trends, nearly 40 percent of the poor were living in the North in 2012, but only 17 percent of the population. See: Molini et al. (2015), p.10.

23 We define piped water on premises as piped household water connection located inside the user's dwelling, plot or yard. Other improved drinking sources include public taps or standpipes, tube wells or boreholes, protected dug wells, protected springs, rainwater collection. Definitions from: UNICEF and WHO, 2015, at: http://www.wssinfo.org/fileadmin/user_upload/resources/JMP-Update-report-2015_English.pdf.

24 These data may not match the estimates provided by the JMP, which uses nationally representative household surveys but draws a best-fit trend line through available estimates for different years. Use of sachet water does appear to have increased rapidly since the last Ghana Demographic and Health Survey in 2008

Figure 2: Estimated trends of urban drinking water coverage by wealth quintile in Ghana, 1995-2012
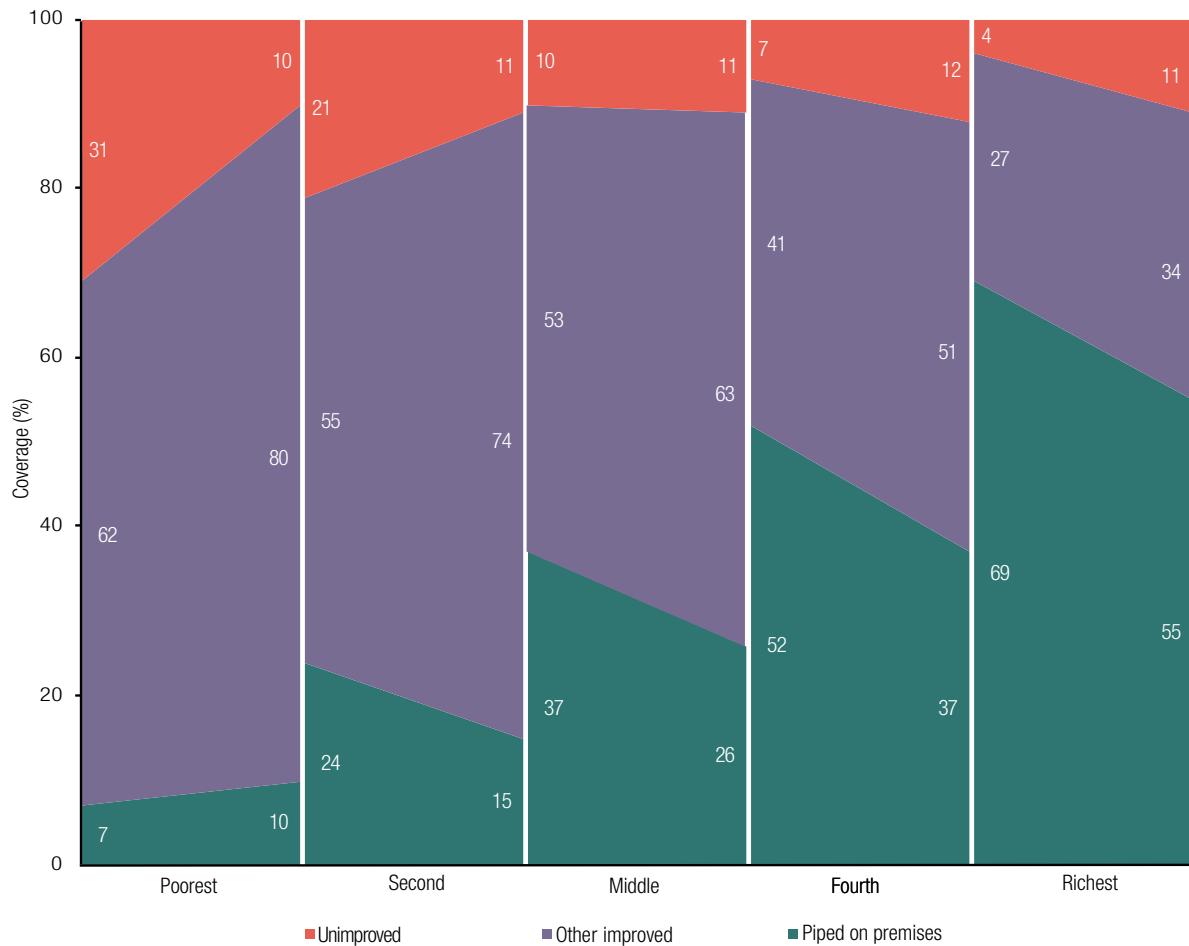
Source: UNICEF and WHO, 2015e.

by a decrease in 2011 (Ibid). Geographically, gains were unevenly distributed across urban and rural areas, between ecological zones (the mountains, hills and low-lying Terai) and across wealth quintiles. The disparities have tended to disfavour groups who experience social marginalisation, such as the residents in remote areas, *Dalit* and *Madhesi* communities, women and people with disabilities. The earthquakes of April 2015 deeply affected the country, destroying its infrastructure and killing over 9,000 people. Shortages of fuel, raw materials and other essential commodities have hampered reconstruction efforts.

In terms of access to water and sanitation services, JMP estimates show substantial progress in extending access to improved water and sanitation in Nepal. In rural areas the proportion of the population with access to improved water supply is estimated at 92% in 2015, up from 63% in 1990. Meanwhile access to improved sanitation increased to 44% in rural areas, up from just 2% in 1990.

However, as with poverty trends, there are categories of people in Nepal who remain excluded from sanitation services, often reflecting wider patterns of poverty, marginalisation and exclusion. Poverty incidences by caste and ethnicity are highest amongst the hill and Terai *Dalits*. According to the most recent nationally representative survey (GoN and UNICEF 2014), the highest proportion

of household members using improved sanitation facilities was in the Western Hills (94%) and the lowest was in the Central Terai (42%). Quantitative and qualitative evidence suggests that poor access relates to place of residence (populations living in hilly and mountainous terrain), remoteness (small numbers of people dispersed over a wide area), ethnic identity (people belonging to the *Dalit* caste, the *Madhesi* ethnic group and the *Janajati*, or indigenous nationalities), and individuals' gender, age and disability status.

JMP data on rural water and sanitation access by wealth quintile shows gains for the poorest quintile, though these have generally occurred at a slower pace compared to households in other quintiles. Access to improved sanitation in rural areas increased from 2% to 16% for the poorest quintile and from 3% to 10% in the case of rural water supply (WHO/UNICEF JMP 2015f; Figures 3 and 4, overleaf).

3.2. Overview of trends and drivers

Looking at the trends in the data available at global and country level, two takeaways emerge from our case studies. First, macro-level data such as that collated by the JMP does not tell the whole story. The 'poorest' are not

Figure 3: Estimated trends of rural sanitation coverage by wealth quintile in Nepal, 1995-2012
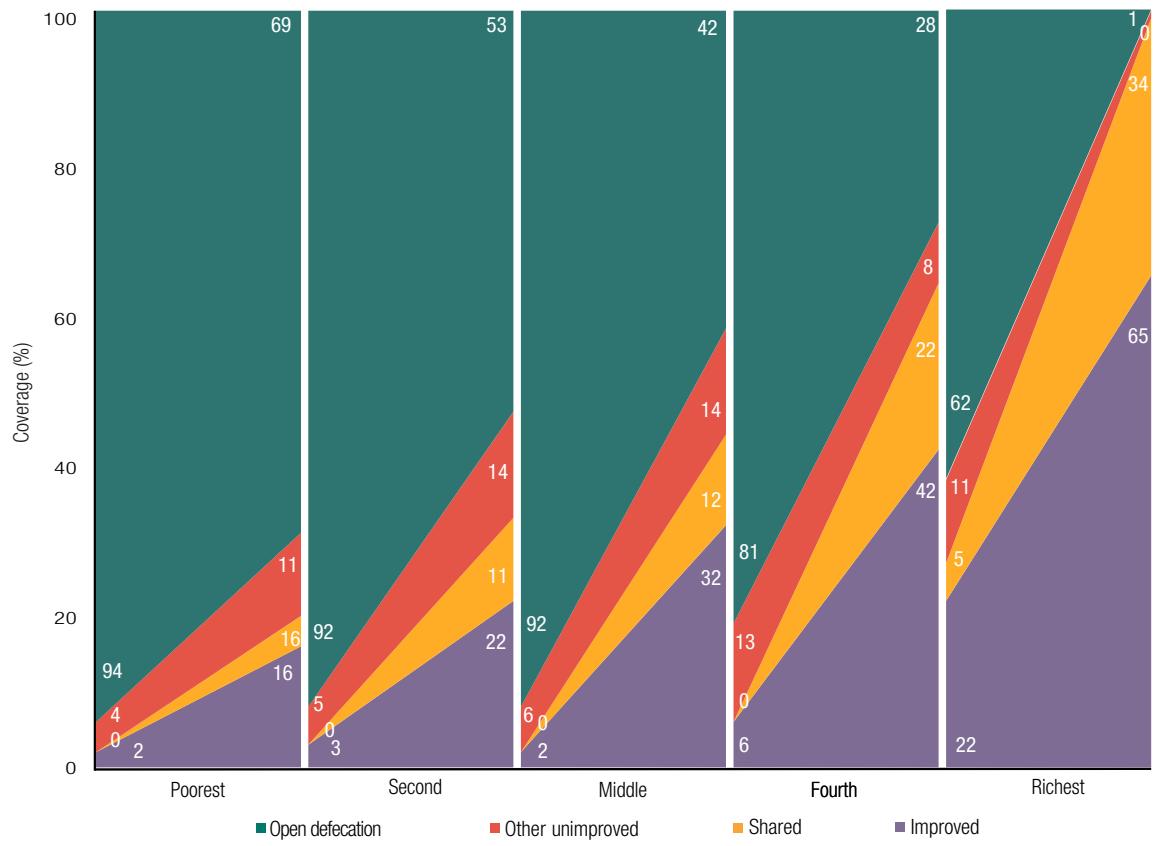
Source: UNICEF and WHO, 2015f.

Figure 4: Estimated trends of rural water supply coverage by wealth quintile in Nepal, 1995-2012
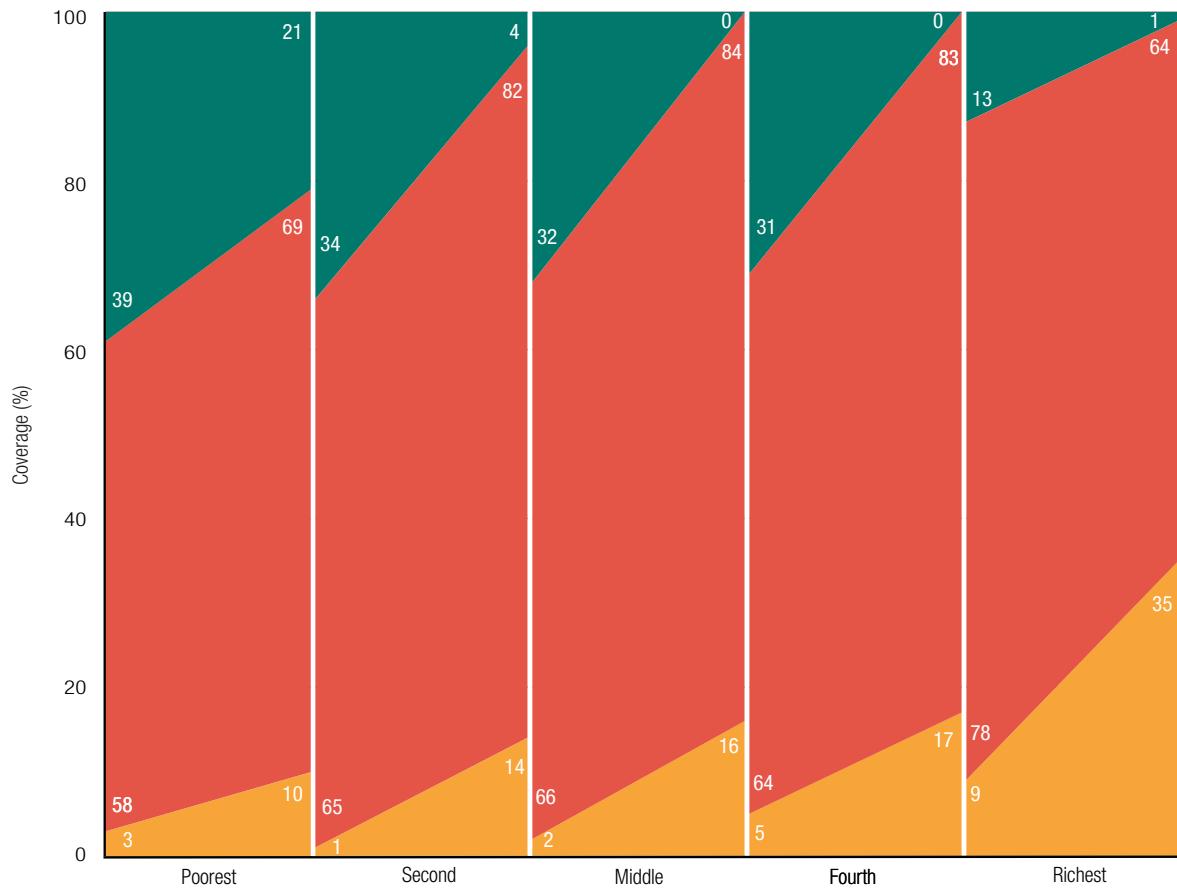
Source: UNICEF and WHO, 2015f.

a homogeneous category, and their access to services is mediated by the geography of where they live (peripheral and peri-urban areas, or remote rural areas tend to remain unserved), the type of work they do (low-paid and/or temporary jobs oblige people to rent poorly serviced accommodations), and their rights and entitlements (for example in terms of land and property rights and tenure security), all intertwined with group-related and individual-related factors such as ethnicity and religion, gender, age, and disability.

Second, progress is not linear. Natural disasters, macroeconomic shocks, political instability, and large-scale migration can disrupt existing equilibria and threaten previous gains especially for the poorest and most vulnerable. At the same time, these critical junctures could act as points of positive inflection, creating opportunities by throwing off equilibria that previously excluded certain groups.

Progress in the WASH sector has been embedded within broader trends of economic growth, reduction of poverty levels and, at least in Cambodia and Nepal, relative inequality. At the same time, progress in WASH does not map perfectly onto progress in reducing poverty and wider inequalities. In Ghana and Cambodia the absolute gap between the richest and the poorest in consumption terms seems to be increasing, but of our case study subsectors, it is only in Ghana's urban water supply that, based on JMP data, levels of access have increased for the poorest quintile more than in all other quintiles. Despite more modest progress on reducing wider inequalities, poorer urban households in Ghana may be becoming wealthier, to the extent that their spending priorities and opportunities shift. Though tapstands, usually part of the public network, make up a proportion of the population using 'other improved sources' some people also access protected groundwater through wells and boreholes. The apparent rapid rise in use of sachet water for drinking, whilst not providing improved access by internationally accepted standards, may also reflect consumer preferences and willingness to spend income on a perceived higher-status good.

The limitations of the data mean this may be speculation, however. It is not possible to disentangle, from our relatively high-level review, precisely how progress on WASH inequality has related to wider poverty and inequality reduction trends over time. But if some decoupling has occurred, it implies that policy and programmatic efforts within the WASH sector may also have been important. Our country-level analysis points to two sector-level drivers.

First, the MDG agenda has yielded some gains especially in terms of how WASH is framed in national policy, strategy and budgets. In all countries, Governments have reinforced the enabling environment and institutional setup for water and sanitation service delivery, often with the financial and technical support of international donors. Nepal's Rural Water Supply and Sanitation National Policy of 2004, for example, laid the ground for substantial advances in

the rural water sector. Over the period 2009-2011, the Government of Nepal developed a MDG Acceleration Framework to help rural sanitation catch up towards meeting the MDGs in 2015. In Ghana, water service delivery, especially in cities and small towns, has been put at the centre of key development strategies such as Ghana's Shared Growth Strategy. This has been matched by significant effort towards reforming the sector's institutional framework, including by experimenting with public-private partnerships schemes to improve efficiency, accountability and performance.

Second, economic development and demographic patterns and priorities have also encouraged governments – often still with donor support – to invest in large-scale infrastructure projects such as drainage and sewage works and water and wastewater treatment stations. These investments have tended to focus on urban areas, in response to growing concerns over urbanisation trends. In Cambodia, the fast rate of urbanisation has prompted donors such as the ADB to support public sector infrastructure such as wastewater treatment plants and sewer networks in various cities. International NGOs like WaterAid are also redirecting their urban sanitation focus towards secondary cities. In certain cases, demand from citizens and pressure from civil society organisations and NGOs may have also contributed to encouraging governments to invest in water and sanitation service provision. In Ghana, for example, NGOs have been vocal in demanding for a reform of the Ghana Water Company Limited (GWCL) towards more effectiveness and accountability.

Overall, however, our analysis suggests that factors outside the sector have been just as important as action within the sector, if not more so. Achievements in the enabling environment and infrastructure development have translated into some gains, including for those with lower incomes. However, there is little evidence that specific agendas for reaching the poorest and most vulnerable constitute a priority for governments, as compared with targets to improve coverage in the aggregate (what could be called an 'MDG mindset'). In all case study countries, we found that pro-poor initiatives remain driven by international and national NGOs and focus on some communities, and some vulnerable groups of people, excluding others.

It is rarely going to be possible to attribute reduced inequalities in WASH to a single actor or initiative. More often it is a long-term process, initiated and sustained by different individuals and/or organisations at different levels, within and outside the water and sanitation domain. Understanding the incentives for these individuals and organisations to act and interact, as well as the power relations between them, is thus paramount to explain success or failure in the water and sanitation sector. It is to this that we now turn.

4. A framework for engaging on WASH inequalities

For organisations that are seeking to engage strategically on addressing inequalities, a number of existing frameworks might help. Foremost among these is the 'key relationships of power', often referred to as the accountability triangle[25] and developed by the World Bank in the 2004 World Development Report (World Bank, 2004). One of the WDR 2004's key contributions was in framing the challenge of providing poor people with services as being about getting one of two main pathways for accountability to work effectively. The first is via a 'long route', whereby citizens exercise 'voice' to their representatives within the state, or government, and government in turn exercises authority over service providers via a 'compact'. The alternative 'short route' entails people exercising choice as 'clients' within a market for service provision, in which they can choose to reward service providers with further business, or exit to alternative providers (Figure 5).

However, there are a number of limitations in the way that the WDR triangle is commonly applied. While the

Figure 5: Key relationships of power for service delivery
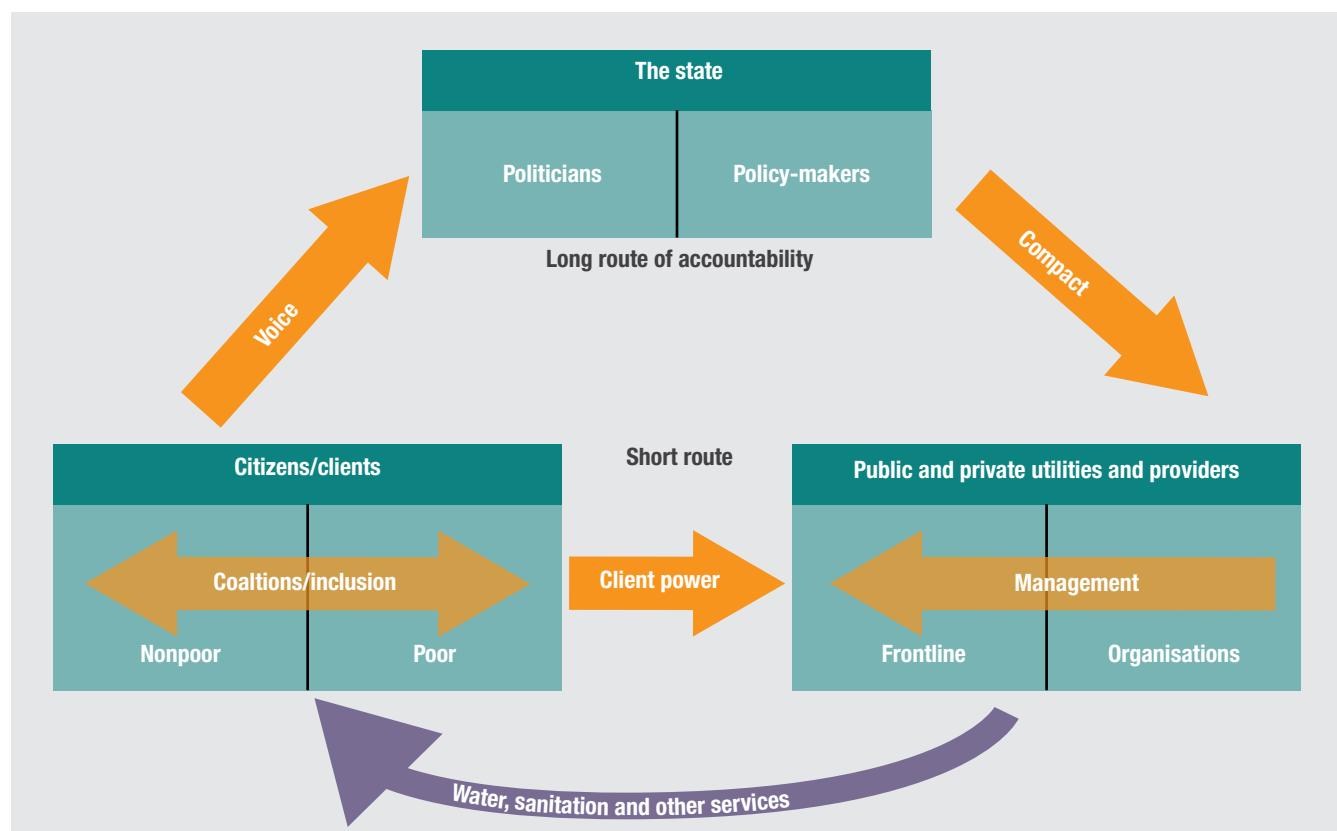
Source: World Bank, 2004

25 The triangle is made up by the three blue boxes grouping key actors – state, citizens/ clients, and utilities/ providers

authors acknowledged that the long and short routes often function imperfectly, those seeking to apply the thinking in practice have tended to address different sides of the triangle in isolation – the dark red arrows in Figure 5. Yet, as one of the report's lead authors noted more recently: 'if the underlying politics is dysfunctional, fixing the compact won't work' (Devarajan 2014). In other words, you can rarely work on the short route without simultaneously working on the relationships that make up the long-route, and vice-versa. Another way that the triangle could be limiting is that it tends to treat each corner of the triangle as more or less homogenous. At each corner of the triangle in Figure 5, distinction is made between politicians and policy makers, non-poor and poor, frontline staff and managers – but there are of course many different types and levels of government entity within the state; different forms of provider (not least formal vs. informal); and many categories of citizen besides poor and non-poor. There are also important types of stakeholders that don't appear in the triangle, who wield significant power – including international agencies and donors, and businesses besides dedicated private WASH service providers.

The WDR 2004 triangle remains a coherent and simple way to understand some very complex issues, and informs our analysis. Yet many organisations working to support inclusive WASH have links to all parts of the triangle. Some, like WaterAid, exist somewhat outside the triangle, and are therefore placed to work in a more encompassing way across all parts at once. We therefore see a need for a more encompassing framing, that encourages change by working across a number of actors, relationships and interests at once.

Implied, but often lost within the WDR triangle are a number of relationships, governed by incentives and values, which fall into certain patterns and give rise to certain outcomes. As the following sections explain, it is on these relationships that organisations seeking to support inclusive WASH can focus, acting as brokers to shift them in a more positive direction for poor and marginalised people. From our research, we identify four categories of relationship, and use these as an organising frame for our recommendations, and to structure our findings in each of the following sections:

- Political relationships – which exist primarily between citizens and politicians, but in turn involve other parts of government including the executive or administration. Political relationships can exist at different scales, moderated by the extent of political decentralisation.

- Social relationships – which exist between service users as individuals and groups, but also between service users and providers, or government representatives, insofar as they need to interact, and collaborate or act collectively.
- Market relationships – which exist between users and service providers, governmental or non-governmental, wherever there is some kind of economic exchange for WASH related goods and services.
- Bureaucratic relationships – which exist between all entities with a prescribed role in service provision or production – even if those roles are often governed as much by informal rules as what is written on paper.

A key advantage of conceiving of relationships in this way is that it does not restrict effort to working on one side of the triangle at a time. For example, the WDR 2004 triangle encourages us to conceive of 'voice' as a bilateral relationship, largely running from citizens to state. The idea of *political relationships* overlaps with voice, but is different in two key respects. First, it runs both ways. Indeed, effective political relationships require a positive reciprocity between governments and their citizens, built iteratively through policy commitments that are rewarded with public support. Second, for those commitments to be credible, they need to be backed by service delivery: working on political relationships necessarily means also working with service providers to help them deliver. To shift each relationship in a positive direction may require concentrating effort on one or other group of actors (the blue boxes in Figure 5) but also implies working across them, and even with actors outside the triangle, for example donor agencies.

This framing also highlights that the four types of relationships exist simultaneously across the triangle. They often overlap and interact, either supporting or undermining performance, ultimately impacting on the degree of accessibility, as well as the type and quality of WASH services. For example, social relationships can have implication for problem-solving, as well as on the nature of political mobilisation. Political relationships can influence client-based oversight and hence impact on market relationships.

In the following sections we discuss each category of relationship in turn. We use examples from the case studies and a number of political and governance analytical concepts (described in Box 1 above) to understand existing problems and windows of opportunity to help shift them in more productive directions over time.

5. Political relationships

From patronage to policy commitments: helping politicians make, and keep, promises to serve poor and marginalised people

Assuming some level of rational choice on the part of politicians, they are more likely to care about serving poor people if it makes a difference to their ability to acquire and retain power, position or remuneration. In democracies – which we focus on given our case studies – it is expected that this motive translates through the ballot box. Theory would suggest that in a democratic system voter behaviour rewards politicians who make, and deliver against, **credible commitments**, for example around providing public goods such as health, education or WASH services. This is conceptually aligned to the idea of **electoral oversight** or, in the terminology of the WDR 2004, citizen voice via the 'long route' of accountability (World Bank 2004), with the addition that, in time, the making and delivery of credible commitments establishes a virtuous cycle of increasing citizen expectation, and increasing political return from making more such commitments.

These patterns can be contrasted with more clientelist mechanisms for allocating services, whereby political elites (patrons) provide goods and/or services selectively to specific groups on which they rely for political support (clients). The shift away from such a system is generally assumed to be positive for equity of services, in that each person's vote matters equally, as opposed to certain client networks being more important to elite patrons, than others. Clientelist systems of governance are also seen as detrimental to equity because they encourage **rent seeking**: climbing the ladder through patronage is expensive, and the priority once in office can be to extract as many resources as possible from public revenues, to pay clients and higher level patrons back for their support.

All three case study countries have been characterised as exhibiting clientelist tendencies (Kelsall, 2012; Asia Foundation, 2012; ESID, 2016). Yet they also display some level of policy commitment to improving access in the aggregate, in the various subsectors under review. It was not possible to fully untangle the underlying motives for those policy commitments, nor the extent to which they genuinely reflect the above virtuous cycle – an evolving expectation that making and keeping policy promises to voters is good for one's political career. Certainly, advocacy and resources from development partners and civil society, as well as the need to comply with internationally-set development goals, such as the MDGs in the 2000s and now the SDGs, appeared to be important too in driving pro-poor programmes.

More important, however, is the apparent lack of clear, government-owned policy programmes across the countries for addressing WASH inequalities whether through targeting or clearly articulated universalism.[26] More isolated, donor-supported initiatives were apparent, and have helped to evolve islands of effectiveness. These have sometimes also responded to intervention from high levels in the national political establishment: in both Ghana and Cambodia, the President committed to improving water supply and sanitation, respectively, in the capital city to attract investment and respond to wealthier residents' demands. However, the initiatives do not (yet) appear to amount to programmes of systemic policy reform, in favour of excluded groups.

Understanding why this is the case requires, in the first instance, a deeper understanding of how policy commitments are made and delivered on in a given country, both in WASH and in other sectors. Ghana, Cambodia and Nepal represent very different environments for working on political relationships in support of inclusive WASH services.

Ghana presents a democracy in which there are some signs of space for impersonal, inclusive policy programmes in other sectors. For example, there is evidence of electoral accountability and voter responsiveness to performance in health and education – with voters self-identifying as poorer than the average particularly likely to be swing voters (Lindberg and Weghorst, 2010). The increasing importance of policy commitments in these sectors, and how parties fare against them, are identified as an important pattern in the development of electoral politics since the 1990s (Lenhardt et al., 2015).

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26 Dedicated targeting of poor groups (concentrating on poor people first) vs universalism (concentrating on everyone so poor people benefit at some point) is an important debate. A pro-poor approach may not always require explicit targeting of certain groups, to the exclusion of others. While aggregate targets risk a focus on low-hanging fruits, for example wealthier and more easily accessible areas, they can be set at a low base and incrementally increased, so that already covered areas are not explicitly excluded from programmes, but in effect the effort is concentrated on unserved areas. This could help mitigate potential sources of opposition from wealthier groups who might otherwise feel excluded (Mkandawire, 2005).

In Ghana's urban water supply, however, there was less evidence of policy or implementation programmes for service delivery – at least not ones fully owned by political elites, that are targeted specifically to low-income households. The priorities of politicians reportedly err towards large infrastructure projects, as opposed to less visible concerns such as performance of the utility: '*it is a matter of prestige: as a Minister, you need to be re-elected, and it is easier to be re-elected if you show that you have invested in big infrastructure projects like desalination plants*'.[27] In this context, while there have been successive reforms of the GWCL to increase supply and performance in general, specific pro-poor reforms have tended to be donor driven. Political leaders at large are yet to see extending access and improving the performance of utility-provided water services as central to their electoral survival. Meanwhile GWCL remains in its own vicious cycle of low cost recovery, modest performance, and inability to keep up with population growth. The recent record of poor performance does little to enhance the credibility of any longer-term policy commitments, and over time weakens the incentives to politicians to make more such commitments.

Cambodia arguably presents a more constrained environment, where patronage relationships still strongly shape the allocation of goods and services, but there are islands of effectiveness. Business interests, including foreign investment, play an important role in the current political settlement (Kelsall et al., 2016). In the health sector, inclusive (free) services have been expanded, indicating that programmatic policy commitments can evolve in certain sectors, as they have in Ghana. However, detailed analysis suggests that this island of effectiveness for equitable services is nonetheless constrained by the wider political settlement. Appointments to jobs in the health sector are used as a means to bestow patronage, and higher-level post-holders are under pressure to repay debts accrued in getting office in the first place, encouraging rent seeking (Kelsall and Heng, 2014).

In contrast, we observed no equivalent programmatic policy commitment or existing Government-driven island of effectiveness in urban sanitation, aimed at addressing inequality; progress on coverage is seemingly driven by household incomes, preferences and action, yielding improvements in containment but failing to incentivise action on subsequent links in the sanitation chain. A key contrast with health is that the urban sanitation sector currently seems to lack political salience in the first place – both because it doesn't offer much potential for profit/rents and because there is little expressed demand from voters, as yet.

Nepal presents probably the most constrained environment for working on relationships between citizens and politicians. Patterns of marginalisation, notably of lower castes, women and ethnic groups, are entrenched and operate across numerous sectors. Room to build a more positive reciprocal relationship between citizens and politicians around inclusive policy programmes is further constrained by a stalled process of political decentralisation. Local elections have not been held since 1998, and appointed officials continue to fill the gap – answerable more to their superiors in the administrative hierarchy than to the communities to whom they should provide WASH services. Legal instruments, including the new Constitution, recognise the importance of social and gender inclusion, although the clauses have not been without controversy (Haviland, 2015) and operationalising them is a much larger challenge.

What might these different contexts and experiences mean for those attempting to foster credible policy commitments to improve WASH services for poor and marginalised people? Supporting citizen voice and engagement has been emphasised historically by NGOs and development agencies including the World Bank. While this remains an important part of the puzzle, there is increasing recognition that such approaches can fail because they are essentially tinkering around the edges of dominant political realities in which the 'long-route' of accountability is dysfunctional, because politicians care more about meeting patron-client obligations, than winning votes through coherent, credible policy programmes. The World Bank has recently shifted its emphasis in response to this, towards *political* citizen engagement approaches, which seek to reshape political structures and participation as a long-term project: 'Well-intentioned civil society leaders can try to organize to pressure government for public goods, but for that organization to have real impact, they need strategies that work with the political incentives of government leaders to respond' (World Bank 2016b, p.11).

Given this, it may be more productive for WASH sector organisations to consider two levels of strategy for fostering greater reciprocity between politicians and citizens. On the one hand, to promote islands of success within the sector through incremental reform, ensuring the credit accrues to Government (Box 2). This has implications in terms of branding and visibility of external actors' interventions. It also has implications for forming wider coalitions of interest beyond the WASH sector, in an effort to shift the prevailing political calculus towards programmatic, inclusive policy agendas, and away from patronage. The latter could involve alliances with other service sectors, with other economic sectors such as manufacturing, or with progressive politicians who 'get' the importance of impersonal, equitable policy agendas. The identification of issues where the interests of different

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27   Interview conducted in Accra on 18th August 2016.

actors align, such as stopping a cholera outbreak, or reducing groundwater contamination, could be a first step towards forming such alliances.

Despite the differences between the three countries, the thrust of the two-level approach remains valid, though the balance and sequencing of effort is likely to vary. For example, in Ghana, given apparently fertile ground for votes to be cast on the basis of credible commitments and performance against those commitments, the priority may be to address shortcomings within the sector, such as helping GWCL escape from its vicious cycle of poor performance and inability to keep up with urban population growth. The experience of PPWSA described in Box 2 suggests it could be helpful to enlist an experienced politician to steer reforms through. Voter behaviour in health and education could be used to make the argument to politicians that urban water is a cause worth championing.

In Cambodia, delivering urban sanitation is yet to become a vote-winner, but experience in inclusive health sector reforms indicates that policy capture by elites and patronage dynamics may ultimately constrain emerging islands of effectiveness. In this case, it may be necessary to pursue both strategies simultaneously. First, to support any island of effectiveness in the sector, enlisting other, politically influential agents who can exert pressure on Government. Companies in economically and therefore politically important business sectors, such as garment manufacturing, may be one such group of allies – especially international firms that are themselves exposed to reputational pressures and seeking to preserve their license to operate. Second, and looking beyond WASH to the wider political climate, to begin to construct alliances with the health sector to encourage elites within government to shift away from patronage-fuelled politics, towards programmatic public goods provision.

In Nepal, political marginalisation of people in whole geographic areas and ethnic/ caste groups, implies that working on political relationships at a national level could be contentious. Exploring the potential to support more positive reciprocal relations between (non-elected) officials and citizens at a very localised level may therefore be the most pragmatic priority in the short term. This could entail experimenting with support for islands of effectiveness at a very small scale to understand what works, where, before seeking cross-sector alliances to scale-up and tackle bigger problems of political representation and voice. In this context it may be advantageous to work with and through proxies (e.g. credible local civil society organisations) as well as emphasising the extent to which WASH offers an apolitical space – for example, WASH infrastructure was reportedly safeguarded by both Maoist and Government forces during Nepal's decade long civil war.

Finally, whether working with a narrow WASH sector-focus or wider coalitions, or pursuing both strategies at once, it is important to reconsider the time horizons of reform interventions. This means aligning timeframes with those of the key political processes (e.g. election cycles) and investments they are trying to influence – a much longer-term project than many influencing and engagement efforts currently allow for.

Box 2: Supporting an island of effectiveness: The Phnom Penh Water Supply Authority

Although our case study of Cambodia looked at urban sanitation, an example from urban water supply suggests that solutions can be found to overcome the limits posed by prevailing political realities such as patronage. The Phnom Penh Water Supply Authority (PPWSA) has successfully extended reliable and affordable services to 85% of Phnom Penh residents. Key success factors include:

- Providing legal autonomy explicitly to prevent political interferences, giving PPWSA control over procurement, financing, staffing and planning
- Having a political 'champion', Ek Sonn Chann, with the network and experience to lead the Authority through its reform and further ward off outside interference
- Sustained support from multilateral and bilateral agencies such as the World Bank, Asian Development Bank, Japan International Cooperation Agency and Agence Française de Développement, who provided grants and loans to support the reforms, as well as technical support and capacity-building

These efforts to insulate PPWSA from wider clientelist behaviours allowed internal reforms to take root, including performance incentives, promotion of technical staff, and cost recovery balanced with a pro-poor focus.

6. Social relationships

Fostering collective action: helping poor people mobilise to demand better WASH services

If facilitating a transition from patronage to political relationships based on programmatic policy is partly about citizen voice, the next question might be how that voice can be best supported and enabled to manifest in the first place. Specifically, we are interested in what it takes to facilitate collective action to address patterns of service provision that exclude certain groups. Collective action problems are frequently referred to in political science as shorthand for a set of motivational challenges in getting people to do something together, which they wouldn't be able to achieve alone – including demanding access and improvements to services (Harris and Wild, 2013).

Although our emphasis in this section is on how low-income and other marginalised people can be supported towards collective action to demand and secure better services, this is rarely just about working 'with communities' in isolation. Recent evaluations of efforts to foster collective action in support of greater social accountability suggest it is important to work with and across society, rather than just with communities. Three reasons stand out. First, that disseminating information on service delivery performance is not enough to mobilise people to challenge failures and trigger a response from service providers. Second, that community-level monitoring, for example with citizen scorecards, is often insufficient unless incentives are rearranged to encourage providers and government to take the result seriously. And third, that local elites can still often capture, for their own enrichment, purposes which aim to let communities direct their own development agendas (e.g. 'community-driven development') (Fox, 2014).

These findings from the wider literature have some parallels in our case studies. For example, Nepal, like many countries, has emphasised community management of water systems and community-led total sanitation as key modalities for addressing rural WASH. Policies allow for water user and sanitation committees to play a strong role in planning services at community level and mobilising community contributions – including the option of committees managing a revolving fund that can provide

subsidies for latrine construction by poor households (GoN, 2011). Reportedly, however, the systemic exclusion of certain groups within communities – for example Dalit and Madhesi populations in the Terai – is mirrored in the composition of many committees, compromising their ability to effectively target support to address inequalities.

In Cambodia, the Government reportedly restricts and monitors the efforts of civil society organisations to help garment workers understand their rights to access services including sanitation (Mosello and O'Leary, 2017). In this context, improving information and awareness may be a pre-requisite for mobilising excluded groups, but appears unlikely to yield change unless the incentives can be changed for government to allow the free-flow of such information, let alone to act on it.

Excluded groups themselves may face limited incentives to act on information, especially where the costs associated with the status quo are perceived to be low. In Ghana, for example, self-supply by developing private wells and boreholes may appear to households to be a lower cost option than connecting to the network, or at least, one in which they have greater control over the costs of failures and reliability problems (it's easier to fix your own pump than persuade the utility to provide 24hr water). Some users avoid the full costs of their choices by 'externalising' them, so they fall on others: those free-riding by tapping the network illegally, or drawing down the groundwater table with private wells and boreholes. In such instances, it is difficult to envisage that simply providing users with information about the impact of their service delivery choices will be enough to prompt collective action on the part of 'the community', insofar as it exists in any homogenous form.

This said, several experts with whom we consulted suggested improving information and awareness is still an important part of the collective action puzzle. In Cambodia, for example, newcomers from rural to urban areas are reportedly used to being able to defecate in the open: 'Raising the awareness of workers coming from rural areas about the importance of being able to access improved sanitation is important; otherwise, they will not demand for better services, and the government will not feel pressed to provide them'.28 This view appears to share some similarities with the widely held concern that

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28   Interview with NGO representative conducted in Phnom Penh on 23rd September 2016.

sanitation, in particular, tends to fall below other priorities for poor and marginalised people – in Cambodia these can include water, energy, flood management and food prices.

Another interviewee in Cambodia recounted an example of how change had been effected in Siem Reap, an important hub for tourism as the gateway town for the Angkor temples: 'If we are able to show that the lack of sanitation including in informal settlements affects the health and well-being of all urban dwellers, political action would follow. This was what happened in Siem Reap, where the municipal governor moved the project for a wastewater treatment station forward to avoid the negative repercussion of bad sanitation on tourism'.29

Overall, our case study evidence seems to confirm the findings of the wider literature which suggests that working directly with excluded individuals, groups or communities as information brokers, to help them understand their rights to services and where these fail to be met, is necessary but not sufficient. If this is accepted, what else might be necessary? Two points stand out from the last example, as compared to the others.

First, thinking more carefully about who is in 'the collective' – is it possible to facilitate collective action by working only with the excluded group? In the above example from Siem Reap, action appears to have been stimulated by increasing awareness of the impact of inadequate sanitation not just for those excluded by service provision, but the wider population.

Second, the importance of engaging with the wider incentives faced by decision makers who are expected to respond to collective action around services. For example, political elites in Cambodia who currently suppress rights-based advocacy for garment workers could be persuaded to see WASH as instrumental to the productivity and success of the manufacturing sector – as appears to have occurred around the tourism industry in Siem Reap.

Neither of these suggestions assume that that collective action challenges are easy to overcome. Turning a collective action problem into a win-win situation is not just about shifting perspectives or acting as an impartial referee to more fairly coordinate and distribute benefits. It invariably involves confronting deeply rooted imbalances of power, across society.

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29 Interview with representative of donor organisation conducted in Phnom Penh on 25th September 2016.

7.Market relationships

Enabling poor people to act, and be seen, as valued customers for WASH services

In the previous sections, we have seen that many of the systemic changes required for citizens to ask for and obtain inclusive water and sanitation services, involve engaging a wide set of actors – including the poor and the non-poor, and government as well as non-governmental interests. Yet, on an ongoing basis, all poor households meet their water and sanitation needs somehow, often independently and on their own initiative. In rural areas, and for the very poorest in urban areas, that can mean using unprotected open water sources and open defecation. But for others, it involves engaging with a largely informal market for WASH goods and services across the value chain (Mason et al., 2015).

The idealised theory of markets for service delivery is that they provide an alternative route for poor people to exert agency to secure services. As 'clients' of service providers, they can hold them accountable, either rewarding good performance by continuing to do business, or punishing bad performance by exiting to another provider, or voicing discontent directly to providers via formal or informal complaint mechanisms. According to the literature, this client-based **oversight**, exercised via the 'short route of accountability', ensures that certain levels of performance are maintained (World Bank, 2004; Harris and Wild, 2013).

In practice, and as our case studies show, markets for WASH services are often dysfunctional and exhibit 'market failures' of various kinds, weakening the effectiveness of client-based oversight. These are due both to the structure and dynamics that characterise the WASH sector, and the political and economic context in which it is embedded.

Firstly, although most of the urban markets for water and sanitation services in theory offer competition, and therefore the opportunity for clients to exercise choice (by exiting to alternatives), they are fragmented. This makes it harder to make informed choices as a consumer. In some cases, costs and benefits of different choices may be hidden.

Secondly, in practice poor clients are often not in a position to choose their service provider. They rely on the service provider that is most accessible to them in terms of geography, quality and affordability of the service, at a given point in time (even if they may need to use a number of different providers to meet their household's total needs). For example, in the Greater Accra Metropolitan Area, 86% of low-income households rely on secondary suppliers like water vendors and private tanker services, despite these costing 10 to 20 times more than the water provided by the GWCL. On the one hand, this is because the GWCL's piped network does not extend yet to some of the growing peri-urban settlements of the Metropolitan Area. On the other hand, even where areas are served by the GWCL, low-income citizens often choose street vendors because of the high up-front cost of connecting to GWCL's network.

Thirdly, in many cases, the official providers perceive the market in low-income settlements as offering no revenue opportunities, or if they engage, struggle to understand and respond to the informal sector, for example the competition presented by alternative providers. The latter are, in some cases, the ones that have facilitated progress in access for the poor; their smaller size, and often informal nature makes them more flexible to expand services to areas and customers that are excluded by official providers. In Ghanaian cities, for example, street vendors and other alternative service providers have proliferated in recent years, while a proportion of households are meeting their own needs from groundwater, which implies procuring pumps and related services.

Fourthly, reliance on alternative solutions to water and sanitation service provision can further exacerbate vulnerabilities, even if it appears, on paper, to be driving up coverage. In Accra, GWCL's distribution pipes often run through low-income urban settlements, but only a few of their inhabitants can afford to connect to them; this has worsened the problem of illegal connections in slums and peri-urban areas. This 'free-riding' through illegal connections reduces revenues and increases operation and maintenance costs for GWCL, and reduces the quality and pressure of the water supply for paying users. Self-built latrines in Cambodia, while resulting in a sharp rise in the number of poor people with access to improved sanitation in urban areas, can create severe environmental and public health damage in the absence of an appropriate system for faecal sludge management. These failures are often linked to factors outside of the WASH sector. In Cambodia, for example, the difficulty of service providers to keep up with the expanding demand and to serve informal settlements, has largely been due to the rapid and unplanned urbanisation process resulting from people moving to cities to search for employment, for example in the garment industry.

Finally, poor people can be excluded from the market for wider structural reasons, including: lack of tenure security; the temporary nature of their employment; administrative hurdles that impede them from accessing official service providers; or explicit forms of discrimination based on their ethnicity, religion, gender, age, or other individual or group-related factors. In Ghana, people living in low-income settlements often rent their house from landlords under insecure tenure arrangements. Landlords can evacuate people with no or little notice if they fail to pay or if they find tenants that are willing to pay more; these precarious conditions discourage poor people from connecting to the GWCL's network. Similarly, renters in Phnom Penh and other Cambodian cities are subject to the threat of eviction if the government decides to use the land where they live for other purposes.

Utilities are therefore reluctant to extend services to informal settlements, as they can be moved at any time; and poor people do not have any incentive to invest in permanent service delivery solutions. In the face of these numerous market failures, what does the evidence from our case studies suggest for WASH organisations looking to harness the 'client power' of poor and excluded people? Again, most of the answers imply working not only with the buyers (citizens as 'clients') and/or sellers (service providers), but many others besides.

Firstly, engagement with markets should recognise the presence of externalities and market failures, which may need to be addressed through public sector intervention. In urban Ghana, this could imply working with Government on technical areas such as tariff structures and regulation, or on establishing a system for groundwater permitting and licensing. It could also imply encouraging the public sector to stimulate inclusive private delivery models, in context appropriate ways and for specific parts of the service. In Ghana's rural water supply sector, the National Community Water and Sanitation Programme has decentralised the ownership and management of water supply systems in order to serve rural areas more efficiently. To do so, the maintenance units of the Community Water and Sanitation Agency have been privatised and the regional companies created through this process now perform major repairs on behalf of District Assemblies.

Secondly, there is a need to work with markets as they exist, not as they should ideally function, and with entrepreneurs who have found ways to fill the gaps. In Cambodia, faecal sludge management in urban areas has been largely supplied by private sector companies, which operate in a fragmented way, and outside of any control from public authorities. A priority could be to understand how these companies thrive, what barriers they face, and explore collaboration opportunities for example through subsidies and adaptations to technology and business models to incentivise their expansion to lower-income and informal settlements.

Finally, there is a need to tackle the structural barriers that hinder poor people's participation in the WASH market. Issues such as insecurity of tenure have been recognised as an impediment to inclusive urban services for decades, and it can be easy to see them as insurmountable for stakeholders in a single sector like WASH. This implies that they may need to be tackled through wider coalitions, similar to our arguments on working on political relationships. While we did not find enough evidence of successful attempts to resolve the tenure issue in our case studies, an example in the Philippines suggests that it is possible. The approaches used provide valuable lessons for other efforts to address contentious, multi-sectoral issues – particularly on working in a more adaptive, entrepreneurial manner (see box 3).

Box 3: Contrasting tenure reform in the Philippines and Cambodia

A local team of Filipino lawyers, activists and academics successfully secured a 2010 law on 'Residential Free Patents', resulting in a 1400% increase in residential land titling. These local 'policy entrepreneurs' were able to understand informal rules and use their contacts to navigate what had been a contentious and intractable issue. Keeping a clear focus on a single objective, they nonetheless experimented with different approaches, with the support of donors willing to make multiple small bets (experimenting with different reform pathways) rather than plunging in with one large, riskier bet, i.e. a major programme designed from false assumptions about how things would work. In the event, rather than aiming for reinventing the wheel or striving for a wholesale, blueprint reform, the successful option involved using existing tools, by adapting an old law (Wild et al., 2015).

The experience in the Philippines contrasts with a 2002 reform of rural land titles in Cambodia. Though initially successful, it was cancelled in 2009 amid political protests, to the embarrassment of a number of international agencies that had sponsored the initiative as a textbook design. Although local NGOs were engaged to mediate disputes, the approach nonetheless failed to support them with the negotiation skills needed to manage the fall-out from titling: changing power relations, identities and expectations (Pritchett et al., 2010).

8. Bureaucratic relationships

This section on the fourth and last of our categories examines the relationships between actors with defined responsibilities for service provision or production. We describe these as 'bureaucratic' in that, as compared to political, social or market relationships, they are more likely to be, at least in theory, defined by sector policy and legislation and linked to specific roles and responsibilities. In practice, of course, many other factors besides what is written in policy will determine whether these relationships function – including what incentives, informal rules and resources are in place. The stakeholders involved in these relationships can include government and public or private service providers. Two political and governance factors stand out as useful to explore this kind of relationship: the extent to which there is regulatory or contractual **oversight,** and the degree of **coherence** in policies and processes for implementation (Harris and Wild, 2013). Bureaucratic relationships are conceptually similar to the compact between state and service providers, within the 'long route' of accountability. However, as outlined in section 4, treating any of the relationships as bilateral is unlikely to unlock systemic change. In the case of bureaucratic relationships, the third 'corner in the triangle' also needs to be taken into account. Namely, service users, whether as citizens or clients, may also play an important role,

particularly where there is some degree of co-production of the service.

Approaching oversight issues first, the case studies again reveal the challenges of blueprint approaches. A key concern is finding the right balance between oversight and autonomy. Reform effort in a number of countries has been directed at commercialising or privatising providers in order to increase autonomy. In practice, however, it can be difficult to find the right institutional forms to balance this with some form of oversight to protect poor peoples' interests – whether established through contractual design or a specific regulatory function. For example, despite attempts at privatising the GWCL to give it more autonomy, its performance has remained unsatisfactory, with large unserved areas, high rates of non-revenue water, and contentious tariffs (Box 4). Even when a degree of autonomy is achieved, there are no guarantees that technocrats and professional managers can be insulated from political dynamics and rent seeking behaviours by elites (Manghee and Poole, 2012). The case of the PPWSA in Cambodia is a more positive example (Box 2 above), suggesting that solutions can be found where there is the right level of consistent support and a politically influential ally can be found to steer reforms through.

Box 4: Struggling for pro-poor tariff reforms in Ghana

In Ghana a lifeline tariff introduced in 2008 by the Public Utilities Regulatory Commission has provided limited benefits to poor households. In urban low-income communities, people generally live in compound housing, comprising multiple households sharing one water meter. Consumption easily exceeds the lifeline threshold of 5,000 litres per month. Paradoxically, therefore, it is the wealthier consumers, more likely to live in a house with their own meter, that have benefited from the lifeline tariff the most. Our interviews suggest that both the PURC and GWCL are aware of the problem but have yet to identify a solution, and are hampered by the lack of resources as support from donors has recently reduced.

Lifeline tariffs are widely used in the urban water sector globally, as are related designs such as rising-block tariffs (where a reduced tariff applies to an initial volume of water, and rises in stages as consumption increases). Experience in Ghana confirms existing research on the need for tariff design grounded in a thorough understanding of where and how poor people live, and their existing levels of access (Komives et al., 2005). In practice, where poor people are excluded from the official water or sanitation supply in the first place, consumption tariffs or cross subsidies may make little practical difference to them. If they do have access, but do not have their own meters, lifeline tariffs can mean they pay more per unit of water. Meter penetration and levels of existing access are therefore key considerations for tariff design, and may affect decisions on whether to prioritise consumption or connection subsidies, or to adopt lifeline vs. other tariff designs.

As well as finding a context appropriate balance with autonomy, challenges of measuring service provider performance can hamper effective oversight. In relation to tackling WASH inequality, a lack of reliable data on levels of poverty and other deprivations, and how these relate to access and quality of WASH services, hampers performance measurement across our case studies. Our interviewees in Accra highlighted that data on inequalities beyond income-based ones are rarely collected as city authorities do not have enough resources to do so. In Cambodia, for example, some donors and government departments plan and target their interventions based on JMP statistics, which in turn use Demographic and Health Survey data; others use the Cambodian Socio-Economic Survey data. This leads to disagreement on how many poor households exist in urban contexts, where exactly they are situated, and to what services they have access.

Moreover, the measurement challenge is not just a matter of resourcing and definitions – information is power and data collection and use for oversight can become politicised. Even when data are available, they can be deliberately misused. In Cambodia, the Government initiated an 'Identification of poor households' (IDPoor) in 2006. NGOs remain sceptical of IDPoor results in urban areas, as it does not take into account informal settlements, and is potentially caught up with the national politics around official recognition of informal settlements and their residents' rights. In addition, as it is the *Sangkat* (urban communes) who decide which households go on the IDPoor list, data may be manipulated for local political reasons. *Sangkat* authorities have reportedly inflated IDPoor data to justify spending and as a means of bestowing patronage, as getting on the list is a means to receive state support.

Central to tackling inequalities is the question of how far to disaggregate data. This can be similarly politicised, dampening the incentives for government to take its oversight role seriously. For example, the success story of increased access to urban water reported by the JMP for Ghana masks the inability of piped supply to keep up with population growth. The fact that Ghana met the MDG target on access to safe drinking water means that the government '*now thinks they have done enough on water*'[30] hampering further much-needed investments as well as diverting donors' attention away from the sector.

Turning to the issue of policy coherence, some degree of incoherence, manifested in a lack of clarity around the division of roles and responsibilities between different state and non-state actors, is inevitable in delivering public services that typically involve complex co-productive relationships (McLoughlin and Harris, 2013). However, policy incoherence becomes a real, practical constraint where unclear or overlapping mandates prevent effective delivery, and/or inhibit development of a government owned agenda. In Cambodia, the lack of clear institutional responsibilities for the urban sanitation sector has resulted in donors picking different Ministries and agencies as their counterparts. For example, the ADB channels its investments through the MPWT, while the World Bank has collaborated more closely with the MIH. The problem is well-recognised in the WASH sector, for example in efforts to develop more coherent approaches for example through Sector Wide Approaches (SWAps) at country level and the 'Collaborative Behaviours' put forward by Sanitation and Water for All (SWA 2015).

Less thought has arguably been put to how issues of policy coherence affect WASH inequality, specifically. As noted, in all our case study countries, donors and NGOs have tended to drive whatever systemic pro-poor interventions exist. In Ghana, for example, pro-poor interventions in the urban context have largely been implemented by NGOs through donors' support, often on an ad hoc basis, rather than as part of a SWAp. This opens up the potential for Government to delegate responsibilities, even if informally – a form of **moral hazard** in which the assumption that external partners will fill the gap could reduce the incentive for Government to take a leadership role.

In Cambodia, an absence of sectoral coordination mechanisms between donors and government agencies has reinforced a piecemeal approach, and appears to result in another kind of **collective action** problem. Neither the donors nor the government have the incentive to make the first move to invest heavily in programmatic approaches to target urban sanitation for poor people, as they do not feel confident about the commitment of the other side.

Coherence between actors at different levels in a hierarchy is also important, which is tied up in the issue of decentralisation of service delivery responsibility to more local levels. Decentralisation of WASH service delivery responsibilities is pursued in many countries as part of an effort to improve priorities such as responsiveness, accountability and targeting that might be assumed to benefit poor and marginalised groups. In all the three case study countries, decentralisation reforms in the sector are ongoing. In Nepal, the WASH sector continues to be administered centrally. Even local participatory structures such as water user and sanitation committees reportedly have limited accountability to the users they serve. In Cambodia, the decentralisation reform, initiated in 2008, is slowly increasing the role of *Sangkat*, which are given a very modest budget to spend on development projects so that they can be more responsive to demands from their communities. Nevertheless, they still have limited capacity and funds to perform their roles. Wider literature on decentralisation suggests, moreover,

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30 Interview with respondent from civil society organisation conducted in Accra on 20th August 2016.

that it is not just a matter of clarifying functions (administrative decentralisation) and providing resources (fiscal decentralisation). Legal and political aspects of decentralisation also matter, for example: who owns what assets? Are local officials are elected or appointed? These can significantly affect the extent to which local authorities have clarity, and room for manoeuvre, to be more responsive to local people at large, and poor people in particular (Boex and Simatupang, 2015).

Finally, clarity on roles, responsibilities and scope for action at different levels also matters for service users, underlining that nominally bureaucratic relationships do not just involve the 'state' and 'provider' corners of the accountability triangle, but users as well. Users need to be able to understand where failures are taking place and how they might engage with the system to achieve better outcomes. If decentralization is unclear, for example, it may be difficult to know whether the most effective recourse is via locally elected leaders, local civil servants, utility representatives or higher level authorities.

From this, there are two key implications for those attempting to broker bureaucratic relationships that can help tackle WASH inequality.

The first relates to oversight, and is simple to understand but difficult to operationalise: to be alert to the informal rules and practices that govern how apparently technical issues of defining oversight arrangements will actually play out. The examples above reveal that regulatory programmes such as tariff reform with accompanying infrastructure investments, such as metering, are urgently needed, as are systems for data collection, analysis and sharing on WASH inequalities. Technical innovations will help, for example using social media or SMS to survey poor urban households. But managing the politicisation of information, or making sure poor consumers capture the benefits from regulatory changes, requires sensitivity. If information is inevitably political, it is important to engage intelligently with the politics, supporting and facilitating the processes that can serve to further the interests of poor people.

For example, according to the political climate, the priority could be to improve the quality of information by working with local rights groups for third party verification, or to encourage the production of new perspectives, by allying with other service sectors to highlight wider gaps in service provision to poor and excluded groups, through means such as scorecards. Similar thinking to that described in Section 7 on taking a more adaptive approach which makes several small bets to work out the best way forward may be applicable here too. On the plus side, framing apparently dull issues such as management information systems and tariff reform as challenges that are as much political as they are technical has the potential to draw in a greater range of disciplines to solve the problem.

The second point relates to improving policy coherence – where the fundamental challenge is to establish systemic, government-owned approaches to serving poor and other marginalised groups. Here, the successes of recent decades, such as moves towards SWAps and Collaborative Behaviours, point the way. For example, the Government of Nepal has dedicated substantial efforts in pushing for accelerated investments in sanitation aimed at meeting the MDGs. In turn, the government's evident commitment has contributed to increasing international donor support, with a focus on moving from a project-based to a more programmatic and sector-wide approach. It is evidently possible to create a positive cycle of increasing government commitment, reinforced by increasing donor commitment. However, most positive examples reflect the priorities of the MDG era, concentrating on extending access in general, not to improve access for the poor and excluded as a priority. The sector is still at the starting point of the SDG journey, but WASH-focused organisations have a key role to play in identifying and sharing positive examples of specifically pro-poor collaborative behaviours: between donors and government, different government ministries, or government, service providers and users within the hierarchy of a given country.

9. Conclusions and recommendations

Figure 6: Brokering better relationships to support inclusive WASH

Source: Authors

Using four categories, we have attempted to shed light on the key relationships that shape the ability of poor and marginalised people to access quality, sustainable WASH services. We have explored how these relationships can break down, but also how they can be strengthened. We have illustrated this with examples from our three case studies, which depict different patterns of success, and failure, in tackling inequalities in WASH as well as broader inequality and poverty. Returning to our research questions, we explored **what the main forms of inequality related to access to WASH are** in section 2, as well as the extent to which they are currently measured. Our findings are skewed towards discussion of income or wealth inequality, but it is clear that other dimensions of inequality are also important – related to gender, social

identity, disability, age and other vulnerabilities. **Whether** (and how) **progress on equitable WASH access is related to progress in reducing wider inequalities** was addressed throughout the paper. In summary, it is clear from our case studies that the two are invariably intertwined, but that the relationship does not proceed in a linear way. Some islands of effectiveness are possible within the sector even where there are high levels of prevailing inequality or discrimination. At the same time, the structural factors that shape levels of inequality – for example a lack of incentives for elites to respond to peoples' needs and demands – can affect all sectors.

This thinking has also informed our approach to the remaining three questions. In terms of **what has driven progress on equitable access to WASH**, we identified a

complex interplay of factors, none of which fall clearly within or outside the sector, though as might be expected the underlying drivers could often be traced beyond the sector. These include: a shift towards programmatic support from development partners; instances of high-level political attention, often responding to wider economic or demographic trends; and action by households enabled by poverty reduction.

In Sections 5-8 we investigated **what the underlying incentives and power relations that underpin the drivers of success and failure in equitable access to WASH are**. We used concepts distilled from the wider governance and political economy literature to investigate these underlying dynamics which often impede, but can also unlock, WASH services for poor people: incentivising credible policy commitments to serving poor people; overcoming collective action problems; enabling poor people to be valued as customers; and creating coherent policy institutions, balancing oversight and autonomy.

Some of these problems are essentially coordination problems – between government agencies and donors, leading to piecemeal investments and interventions in the sector; between public and private, formal and informal service providers, which excludes certain clients and areas from service provision; and between the clients themselves, hampering their collective efforts to claim for better services. Other problems, however, will require a more substantial redistribution of the costs and benefits associated with WASH service provision, in turn entailing shifts in the power relations between key players. The latter will be more difficult to achieve, and require sustained efforts toward policy engagement and advocacy, building coalitions with other 'agents of change' within and outside the sector.

The four relationships around which we structured our argument – political, social, market and bureaucratic – take us beyond the framing offered by the WDR 2004 and its accountability triangle. Brokering these relationships means working across multiple groups of stakeholder – the many subcategories within and outside the three broad groupings of citizen, service provider and government. The relationships in question also invariably extend to stakeholders outside the notional boundaries of the sector. It is therefore not clear that categorising issues as 'within sector influence' or 'outside sector influence' will be that helpful. Most issues are an amalgam – with the sector nested within wider socio-economic, policy and political environment. The task for organisations seeking to support inclusive WASH is to understand which might be more tractable for a sectoral organisation to approach alone, and which imply building coalitions with others – whether other sectors; or other influencers such as political or business leaders.

To ensure the argument flows towards practical implications, in each of Section 5-8 we also began to address the final question: **what are the entry points to**

change? We return to these points here, as directions and options for where champions for inclusive WASH can focus policy engagement and advocacy in the near term.

As shown in Figure 6, the four relationships imply four areas in which to concentrate effort. In reality, however, many of the approaches that we outline as helpful to brokering one type of relationship, could also be relevant for brokering others.

Based on the entry points to change already identified, our recommendations are set out under each of the four categories of relationship.

Political relationships – To strengthen the value of political commitments towards poor people:

- Focus support on islands of effectiveness within the sector, recruiting influential and experienced political figures to help steer reforms through. Keep a back seat role to ensure credit, in the eyes of citizens, goes to government, and adopt a longer-term approach tying reform efforts to the timeframes for political and investment cycles.
- Where patronage or equivalent features of the political environment limit the potential for deeper reform, begin to build coalitions of interest outside the sector to encourage politicians towards more inclusive, credible policy commitments. These coalitions could involve other service or infrastructure sectors, e.g. health, education or flood protection and urban drainage; or other economically important sectors whose employees are negatively impacted by inadequate WASH.

Social relationships – To ensure collective action results in benefits for poor people:

- Consider carefully who has the real voice and power, and engage them. For example, if access to piped water in urban areas is stagnating or failing to keep up with population growth, non-poor as well as poor users will likely need to be part of the solution.
- Approach collective action problems as challenges that go beyond 'the community'. Complement community-based engagement with simultaneous advocacy and capacity-building, targeted at government and service providers, to overcome any disincentives to respond to citizen demand once it is mobilised.

Market relationships – To help poor people become valued customers:

- Collaborate with entrepreneurs who are already filling gaps in finding market solutions. Help them to review their business models and identify whether and how they can scale – while avoiding excessive intervention or support that could weaken the commercial imperative.
- Complement business oriented work with engagement with government on better regulation and contracting,

for example to delegate certain functions to the small-scale private sector.

- Identify the key structural barriers to effective WASH markets e.g. tenure insecurity, and address these through coalitions with other service sectors, urban campaigners or rights groups. On big, historically intractable issues like tenure, making a series of adaptive, 'small bets' to identify appropriate solutions poses less risk than lumping all effort into one approach without adequate testing.

Bureaucratic relationships – To help develop stronger institutions to protect poor peoples' interests:

- To find solutions to apparently technical challenges, e.g. tariff reform, engage multiple disciplines, including lawyers, sociologists and political scientists – alongside economists and engineers.

- Act as a conduit, catalyst and champion for better information on service delivery performance for poor and marginalised people. Pilot new methods of data collection (e.g. social media/ SMS surveys); work with trusted entities and rights groups to help them collect and use information effectively; use data visualisation to help decision makers understand challenges of WASH access and the costs this entails in terms of lost productivity, or reduced revenue; explain why the costs and the potential benefits of action should be of interest to decision-makers; and ally with other service sectors to highlight wider gaps in service provision to poor and excluded groups.

- Begin to evolve the narrative of collaborative behaviours and associated thinking to have a clear focus on addressing inequalities. Identify and share positive examples of collaborative behaviours in the sector, or elsewhere, that specifically support inclusion.

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Appendix 1: PEA methodology

In each selected country, we undertook a political economy analysis (PEA) using a problem driven approach (see e.g. Mason, Harris and Batley, 2013; Mason, Batley and Harris, 2014). We added the analysis of drivers and patterns of social and economic exclusion to this framework, in order to shed light on the policy and institutional changes and investments that are required to promote broad-based and equitable access to WASH services. We structured our research along four phases: problem identification; structural diagnosis; agency diagnosis; and prescription.

Problem identification

For each case study country, we selected the subsector to investigate through the political economy analysis on the basis of the results of our analysis of JMP data. This allowed us to compare countries that share a persistent problem (high levels of poverty and inequalities), but have made different progress in improving access to WASH for their people. The analysis aimed at understanding why (what policy and institutional changes have occurred, and what investments have been made?) some countries have been able to advance access to some WASH services, while others have lagged behind.

Structural diagnosis

In this phase, we identified the structural and systemic features that are in place, and define the problem. The structural diagnosis included both formal and informal policies and regulations, as well as how formal rules are informally applied in practice. Insofar as these features relate to reduced WASH outcomes for the poor, they may be economic, political, geographic, social, or ideological. Furthermore, in line with the required attention to barriers that are systemic as opposed to those that exist within the sector, we gave consideration to the particular characteristics of the subsector under investigation. We assessed its technical features and the political economy that they give rise to, as well as how these interact with the broader political economy of poverty reduction in the country. As such, the structural diagnosis was conducted in an iterative way, overlapping with and reflecting on the agency diagnosis. It commenced with desk-based review to build an initial picture or set of hypotheses, to be then refined and tested during the fieldwork interviews.

Agency diagnosis

The analysis of power, incentives and behaviour is at the heart of political economy analysis and takes us from what problems exist, and what formal and informal rules maintain the status quo, to a deeper interrogation of *why* those rules, and therefore the problem, persist. We used the following six broad categories of incentive, based on Harris and Wild (2013) as an empirical and systematic basis for enquiry, and expanded and adapted them in the course of the analysis:

- **Oversight:** The extent to which oversight systems effectively link actors along the service delivery chain, expose them to incentives and sanctions set by others, and permit them to deploy incentives and sanctions for others.
- **Coherence:** The degree of coherence in policies and processes for implementation –in terms of whether they are applied (or can be expected to be applied) in a uniform and integrated manner across time, space and groups of people.
- **Autonomy:** The capacities and scope to come together to solve shared problems locally, or act individually.
- **Rents:** The availability and distribution of rents, i.e. the potential for actors to derive a benefit without contributing productively.
- **Credibility:** The extent to which competitive advantage, political or otherwise, can be obtained by making and fulfilling commitments to an electorate or other power base.
- **Moral hazard:** The degree to which risk-takers are insulated from the consequences of their decisions.

Data for the agency diagnosis were gathered primarily through key-informant interviews in the course of fieldwork. Fieldwork took place in each country for the duration of up to 7 days, during which we interviewed between 15 and 20 key respondents from government and donor agencies, international and national NGOs, experts/researchers, and civil society/private sector. In Ghana and Cambodia, we conducted focus groups with poor users and observations of the WASH situation in low income settlements.

Prescription

Preliminary identification of plausible change pathways was made during the course of the case-study visits, and refined during the analysis and write-up of the country case studies. It was informed by discussions with experts at WaterAid UK and in WaterAid country offices.

Appendix 2: Interview guide

Below are the general topics and questions that guided the interview process in Ghana, Cambodia and Nepal. It should be noted that, for each country case study, we adapted the questions to the specific problem we were analysing, and to the actors we were consulting. We adopted a semi-structured approach, leaving ample space for follow-up questions in order to allow the respondent to come up with his/her own analysis of the problem at hand.

1. Mapping sector roles and relationships

- Are the key sector roles well defined on paper and in practice, i.e. for policy and planning, regulation, service delivery – at different levels from national to district?
- How do the stakeholders playing key sector roles relate and collaborate, horizontally (e.g. between different ministries and agencies) and vertically (e.g. between leadership and operational levels)?
- How are national or state level sector stakeholders engaging with/ influenced by international dialogue and advocacy on urban water?

2. Understanding progress of urban/rural water/ sanitation sector/reducing inequalities

- What are the key examples of national programmes or campaigns where there has been a clear prioritisation of reducing inequalities in access to WASH? How have they been linked to development processes, e.g. economic transformation?
- Was there explicit prioritisation of urban/rural water/ sanitation? If so, to what extent the focus was put on 'reducing inequalities'? And who was involved in driving that?
- How did the initial prioritisation cascade through to the implementation level?
- What roles were played, by whom, at different levels (e.g. politicians; managerial and technical staff of civil service/ private sector; civil society)?
- What was the outcome?
- What challenges were encountered and how were these resolved?

3. What combination of incentives/power relations/rules lead to the problem?

Coherence: Degree of coherence in policies and processes for implementation; are they applied uniformly by everyone and across time?

- Systems in place for planning and budgeting and how well they function: sector-wide approach? Investment plan? Pro-poor focus of utilities?

- To what extent is there prioritisation of the subsector in resource allocation/budgeting by national and regional/ state/provincial/city governments?
- Is the current planning system centralised or bottom up/ locally led? E.g. what authority do local bodies have to allocate resources? What avenues do citizens have to influence subsector planning, and how effective are these?
- How does property tenure affect the delivery of services to the poor and other vulnerable groups?
- Are there other bureaucratic or practical factors that make it more difficult for poor households to connect?
- Do forms of socio-cultural discrimination affect the delivery of services to the poor and other vulnerable groups (gender, ethnicity, language, disability, age, health status)?

Autonomy: Capacities and scope to come together to share problems (locally/sectorially)?

- Coordination mechanisms in place to enable sector oversight and how well do they function?
- Do utilities have operational decision-making autonomy in investment planning, HR, finance and procurement management?

Oversight systems: Linking actors along the service delivery chain: accountability/incentives/sanctions.

- Are the financial audits of utilities - internal and/or external - timely and independent?
- Are there any sanctions for poor financial management by the utility?
- Is there an annual review in place to monitor sub-sector performance and to set new targets/undertakings; if so how far are commitments made and reviewed with respect to serving poor and vulnerable groups?
- Is there reporting by the utility on water supply construction output by geographic area/ income? How frequently is it updated?
- Is water quality regularly monitored and reported on for different parts of the utility network
- Are there performance targets agreed and reviewed between state authorities and providers; and are failures sanctioned?
- Do key agencies mandated by the state for regulatory oversight have capacity to fulfil their functions?

Rents: Availability and distribution of rents (potential for actors to derive benefits – financial or others)

- What types (capital, operations, maintenance etc.) and level of costs for utilities (national or three largest

utilities) are being covered by tariffs vs. public or donor subsidies?

- Are there public subsidies to finance expansion and/or recurrent costs?
- Is the context characterised by below-cost tariffs? What are the levels of NRW?
- What regulatory provisions are made for ensuring pro-poor fees and tariff structures in the subsector and how are they reviewed and enforced?
- Are tariffs set and controlled by a regulator or set by providers? Is there political interference in tariff setting?
- What evidence is there of profiteering in the subsector?
- Is there evidence of rent-seeking by utility management or politicians?

Credibility: Political/competitive advantage/benefits deriving from fulfilling promises to electorate.

- What kind and level of civil society advocacy is there around the particular needs and rights of poor and other vulnerable groups in the subsector? Do CSOs and Media outlets currently engage on water service delivery problems and issues – is it on access, quality, equity?

- Are there coalitions of citizens (CSOs, social groups etc.) that take up the issues relating to urban water services with elected local and/ or national leaders?
- Is there evidence of political interference and political targeting of investment?
- How are appointments made of key policymakers/ and managers in the provider bodies? E.g., incomplete/ questionable/politically motivated appointments.

Moral hazard: Degree to which actors are 'protected' from the consequences of their decisions.

- How effectively are users engaged as customers/clients by service providers?
- Does the service provider actively communicate with users or citizens on aspects of the service?
- To what extent do elected representatives (national or local) have direct engagement in subsector service providers?
- To what extent does the subsector feature in political campaigns?

Appendix 3: List of organisations interviewed for this study

Cambodia

Organisation	Date and place of interview
People in Need	Phnom Penh, 22nd September 2016
Centre for Development (CfD)	Phnom Penh, 22nd September 2016
WaterAid Cambodia	Phnom Penh, 26th September 2016
UNICEF	Phnom Penh, 27th September 2016
UNCEF	Phnom Penh, October 2016
Ministry of Public Works & Transport, General Directorate of Public Works	Phnom Penh, 26th September 2016
UN Habitat	Phnom Penh, 20th September 2016
Community Empowerment Development Team (CEDT)	Phnom Penh, 23rd September 2016
Urban Poor Women's Development (UPWD)	Phnom Penh, 27th September 2016
Worker's Information Centre	Phnom Penh, 23rd September 2016
World Vision Cambodia	Phnom Penh, October 2016
GIZ	Phnom Penh, October 2016
Ministry of Interior (MoI), National Committee for Democratic Development (NCDD)	Phnom Penh, October 2016
Ministry of Planning	Phnom Penh, October 2016
SNV	Phnom Penh, 25th September 2016
Cambodian Institute for Urban Studies (CIUS)	Phnom Penh, 27th September 2016
Ministry of Rural Development, (MRD), Department of Rural Health Care (DRHC)	Phnom Penh, 28th September 2016
Sahmakum Teang Tnaut (STT)	Phnom Penh, 27th September 2016
Water and Sanitation Programme (WSP), World Bank (WB)	Phnom Penh, 26th September 2016

Ghana

Organisation	Date and place of interview
WaterAid	Accra, 16th August 2016
WSUP	Accra, 16th August 2016
Peoples' Dialogue	Accra, 15th August 2016
Water Directorate (2 people)	Accra, 19th August 2016
GWCL	Accra, 17th August 2016
SkyFox	Accra, 18th August 2016
IRC	Accra, 15th August 2016
Independent expert	Accra, 17th August 2016
Bilateral donor	Accra, 15th August 2016

PURC	Accra, 19th August 2016
ProNet	Accra, 16th August 2016
WRC	Accra, 15th August 2016
World Bank	Accra, 17th August 2016
Focus group discussion with women (users, water vendors) in low-income community of Accra	Accra, 19th August 2016
UNICEF	Accra, 18th August 2016
Global Communities	Accra, 17th August 2016

Nepal

Organisation	Date and place of interview
Embassy of Finland	Kathmandu, October 2016
Department of Local Infrastructure Development & Agricultural Roads (DOLIDAR)	Kathmandu, October 2016
Ministry of Federal Affairs and Local Development	Kathmandu, October 2016
Central Bureau of Statistics (CBS)	Kathmandu, October 2016
National Planning Commission	Kathmandu, October 2016
WaterAid Nepal	Kathmandu, October 2016
WHO	Kathmandu, October 2016
UN Habitat	Kathmandu, October 2016
Ministry of Science and Technology	Kathmandu, October 2016
Feminist Dalit Organisation	Kathmandu, October 2016
Nepal Water for Health (NEWAH)	Kathmandu, October 2016
Department of Water Supply & Sewerage (DWSS)	Kathmandu, October 2016
World Bank	Kathmandu, October 2016
Ministry of Water Supply and Sanitation	Kathmandu, October 2016
Sector Efiiciency Improvement Unit (SEIU)	Kathmandu, October 2016
Rural Village Water Resource Management Project	Kathmandu, October 2016
WHO	Kathmandu, October 2016
Rural Water Supply Fund Development Board	Kathmandu, October 2016
Independent local consultant	Kathmandu October 2016

Cover photo: Woman collects water in Nepal. © Jim Holmes for DFAT.