

CABRI Policy Dialogue

Value for money in the water, sanitation and hygiene sector



CASE STUDY

Access to water and sanitation in rural areas

A policy challenge in Burkina Faso

Acknowledgments

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Acronyms and abbreviations

CPE	water production centre
DREA	Regional WASH Directorate
INSD	National Institute for Statistics and Demography
JMP	Joint Monitoring Programme
MDG	Millennium Development Goal
ONEA	National Office for Water and Sanitation
PN-AEP	National Water Programme
PN-AEPA	National Programme for Water Supply and Sanitation
PN-AEUE	National Sanitation Programme
SDG	Sustainable Development Goal
WASH	water, sanitation and hygiene

1. Introduction

Burkina Faso was in some ways a star performer in the water, sanitation and hygiene (WASH) sector during the Millennium Development Goals (MDG) era. This case study explores the debates taking place in the sector about how it might build on that in order to achieve universal access. This target involves new challenges, particularly in providing water for those harder to reach (for hydro-geological and other reasons) and in funding large-scale sanitation uptake. It is by no means clear whether the government will be able to deliver the new service levels implied in its plans leading up to 2030.

The case study focuses on the challenge of rural WASH in Burkina Faso, because that is where the biggest deficits in access lie, particularly in respect of sanitation. Urban WASH access is near universal, with the urban operator recognised as one of the best in Africa. The case study ends with discussion questions focused on the issues the sector is grappling with, the aim being to use one country's experience as a framework to explore the very similar challenges faced by many other African countries.

1.1 Burkina Faso context

Burkina Faso is a country of 18 million people, of whom 70 per cent live in rural areas. Estimates suggest that this will rise to 29 million by 2030 (with 60 per cent still living in rural areas). This is due to a national population growth rate of 2.9 per cent per year, with the urban population rising at 5.9 per cent per year (World Bank 2017). The country is fourth from the bottom of the UN Human Development Index. It has been through a period of increasing instability since 2011. The former President Blaise Compaoré was ousted in October 2014 following widespread protests against his rule. The ensuing transitional authority was overthrown by a short-lived coup in September 2015. However, elections went ahead in November 2015 and things have remained relatively stable since President Kaboré was elected. Nonetheless, 2016 and 2017 have seen several Islamist attacks on cafes, hotels, the army and the police.

1.2 The impact of poor WASH in Burkina Faso

Diarrhoeal diseases remain a health problem in Burkina Faso – 15 per cent of children under the age of five years experienced diarrhoea in the two weeks preceding a health survey (INSD & ICF International 2012). WASH-related diarrhoea causes the deaths of more than 4 000 children per year in Burkina Faso (WHO 2014). Furthermore, about a third of Burkinabè children younger than five years are stunted (have a low height-for-age ratio), a nutritional outcome strongly associated with poor sanitation (INSD & ICF International 2012).

There are also economic consequences, some linked to the human consequences described above. The World Bank has estimated that impacts resulting from poor sanitation alone cost the economy of Burkina Faso CFA83 billion (US\$171 million) per year (World Bank 2012). These costs result primarily from adverse health, the cost of treating the sick and the loss of their and their caregivers' productivity. This is the equivalent of 2 per cent of annual GDP in Burkina Faso, and would only increase if adverse effects from inadequate water supply were included. WASH programmes, therefore, can be a good investment in avoiding these costs – two projects supported by the World Bank in Burkina Faso estimated attractive economic rates of return on their investments of 11 per cent and 17 per cent annually.¹ A study of the benefit-cost ratio of investments in water supply and sanitation for Burkina Faso estimated that economic benefits would be at least 2.4 times the cost of water supply and at least 2.9 times the cost of sanitation. Moreover, there are further benefits that which are not economically quantifiable, not the least of which are safety and security, dignity and greater equality between men and women.

¹ World Bank appraisal documents for 'Ouagadougou Water Supply Project' (2001) and the 'Urban Water Supply Project' (2009).



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2. Access trends and policy reforms during the MDG era

2.1 Performance on access during the MDG era

Burkina Faso made significant progress on some aspects of access to rural WASH services during the era of the MDGs. This is shown by the survey data presented in Figure 1. The data points come from household surveys overseen by the National Institute for Statistics and Demography (INSD), but the trendlines were added by the authors of this case study and should be interpreted with caution. For drinking water in rural areas, Burkina Faso saw rapid progress during the 1990s and early 2000s. The proportion of the rural population without improved drinking water dropped from around 60 per cent between 1990 and 2010. However, as illustrated by the trendline, progress slowed considerably after about 2005, with increases in access only matching population growth.² Possible reasons for the stalled progress in rural water

² For urban areas the data shows a similar story, with rapid increase in the 1990s to about 95% coverage, and the last 5% proving difficult to reach. For urban sanitation, there was slow but steady progress throughout the MDG period, though challenges around levels of service remain.

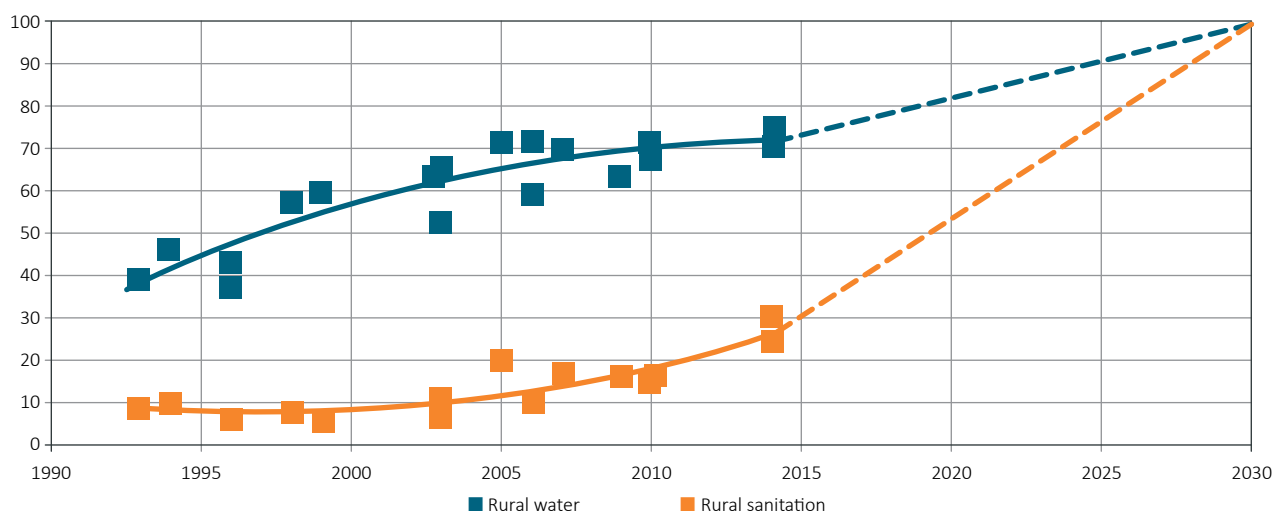
and accelerating progress in rural sanitation are explored in Section 4 below.

The trend for rural sanitation has been the opposite of that for water – there was little progress in the 1990s (at a time when the sector had very low priority). However, this has been replaced by a relatively strong upward trend since the late 2000s, albeit to a still very low status. The dotted lines show that reaching universal access by 2030 will be a significant challenge. For sanitation, there is a long way to go, but it looks achievable if the recent momentum is maintained. The goal for water is more within reach, but the current stagnation would have to be overcome.

2.2 Trends in policies and programming in the MDG era

An overview of major events relevant to sector development is set out as a timeline in Figure 2. Burkina Faso implemented reforms in the 1980s and 1990s, which set the scene for the adoption of a programmatic approach to sector development in 2006. The resulting National Water and Sanitation Programme

Figure 1: Access to improved rural WASH, 1990–2015, and trend required to meet the Sustainable Development Goals (SDGs)

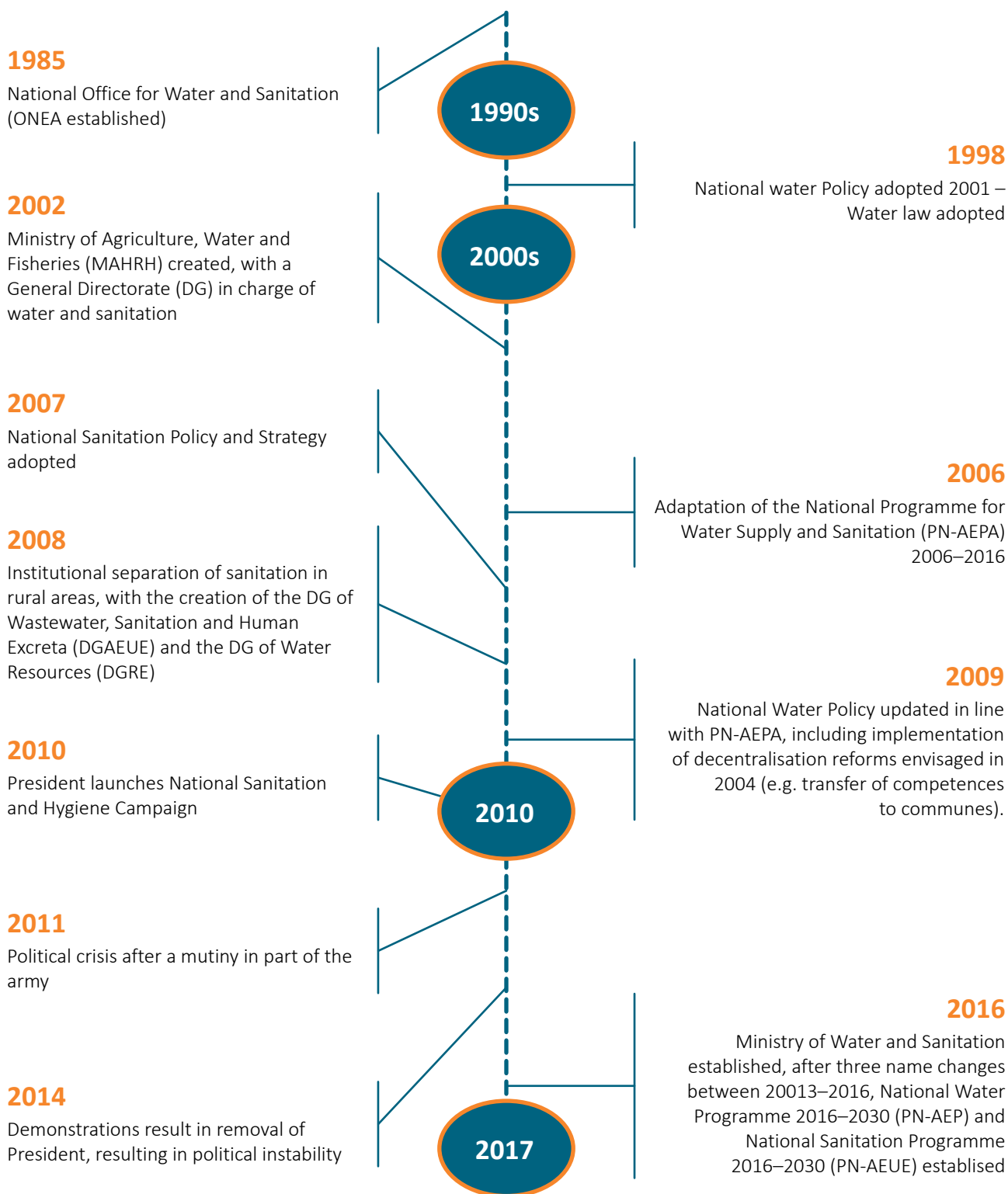


Source: WHO/UNICEF Joint Monitoring Programme (JMP) estimates for improved access in 19 household surveys, mostly carried out by the INSD (see data file at www.washdata.org)
 Note: Polynomial trend lines added by the authors of the present paper.

2007–2015 (PN-AEPA) was the central focus of sector activity during that period. A 2011 review by the World Bank, as part of an Africa-wide WASH sector diagnostic, identified political will as a key factor determining progress in the MDG era in Burkina Faso,

alongside increasing government WASH budget commitments (World Bank 2011). Burkina Faso was praised as a ‘model country’ in Francophone West Africa, particularly for water, generally outscoring its peers in terms of WASH policies and institutions.

Figure 2: Timeline of WASH sector development in Burkina Faso

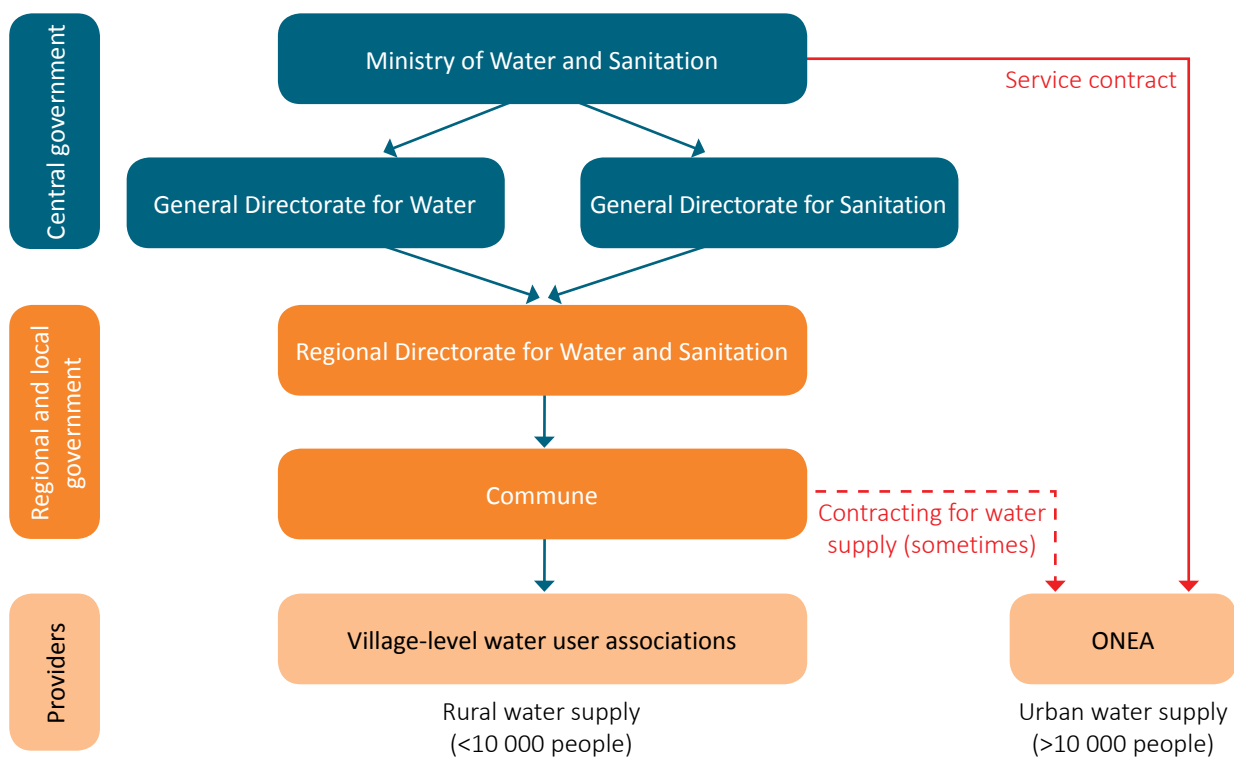


Key features of the PN-AEPA included decentralisation of the management of rural WASH services, a three-year rolling objective-based budget allowing for the regular updating of investment plans, and a fit-for-purpose monitoring and evaluation system.

Institutional responsibility for service provision in the four sub-

sectors is illustrated in Figure 3. For rural WASH, service provision is the responsibility of municipalities called communes. Communes are the lowest administrative unit above villages, akin to the 'district' level in many countries. There are 351 of them across Burkina Faso's 45 provinces (302 rural communes and 49 urban communes).

Figure 3: Institutional structure of the WASH sector



Source: Based on Humphries (2017)

3. Present status based on SDG indicators

The SDGs saw the introduction of new global indicators targeting universal access to ‘safely managed’ WASH services.³ A separate ladder for hygiene was also introduced. Burkina Faso’s status in 2015 against SDG indicators is shown in Figure 4.⁴ The graphs show that, for water, there remain significant challenges in both access and service quality.

About a third of people in rural areas lack even basic access – while the use of surface water has fallen to 3 per cent, a further 30 per cent continue to use unimproved sources, such as unprotected wells and springs. About a quarter of the rural population (24 per cent) use an improved infrastructure that provides only a limited service, meaning that it takes more than a 30-minute round trip to access the water. Things are better in

urban areas, where almost everyone uses an improved infrastructure, but 16 per cent remain with a limited service.

The challenge in respect of sanitation remains enormous – 65 per cent of the rural population still practiced open defecation in 2015 (one of top 10 in the world). Urban areas present a different challenge. Most people (93 per cent) use a latrine (the vast majority of them improved infrastructures), but only 2 per cent are sewer-connected). However, 40 per cent of the urban population have only a ‘limited’ sanitation service, meaning the sharing of a latrine with other households.

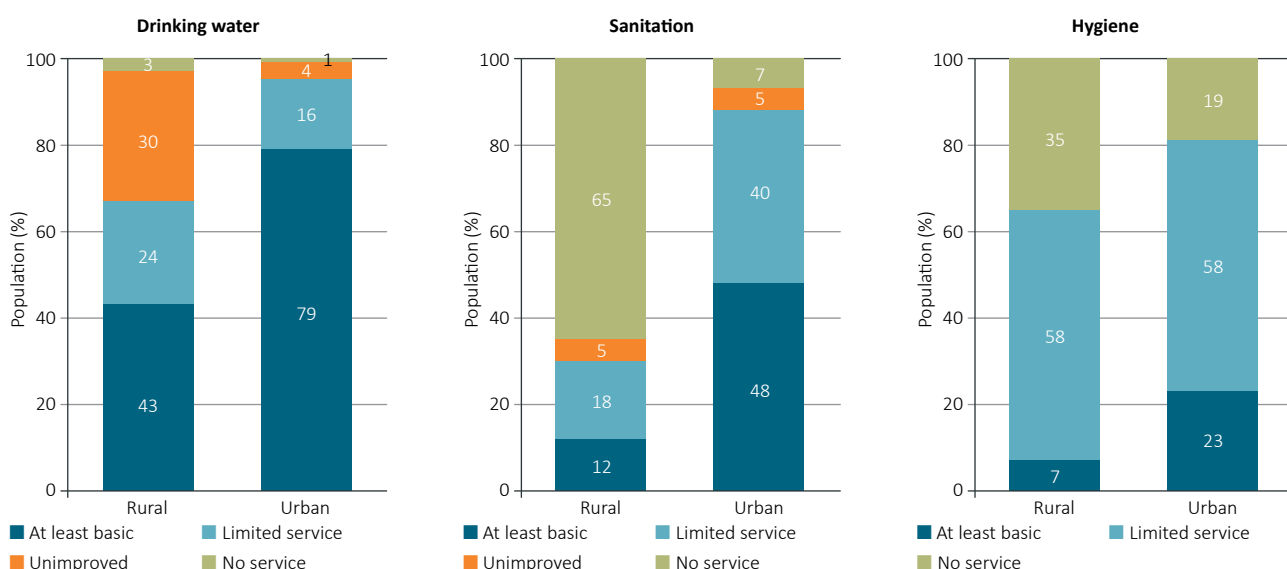
For hygiene, the outcomes are as weak as they are for sanitation, with only 7 per cent of rural households having a basic service (meaning a handwashing station with soap and water available).

In summary, the three biggest access challenges for Burkina Faso, based on the data, are: (i) reducing open defecation in rural areas; (ii) improving access and quality of rural water services; and (iii) helping people climb the sanitation ladder in urban areas. Policy questions related to rural WASH are explored in the next section.

³ The SDG indicators are discussed in the keynote paper, entitled *Key policy challenges and opportunities for improving service delivery in Water, Sanitation and Hygiene (WASH) in Africa*.

⁴ Data was insufficient for the JMP to be able to estimate the new “safely managed” indicators, so a “basic” service is the highest standard shown in the figure.

Figure 4: Burkina Faso’s WASH status in 2015 based on SDG indicators



Source: WHO/UNICEF JMP (2017)

4. Key policy questions

This section focuses on current policy questions of importance for the rural WASH sector in Burkina Faso. In particular, it focuses on binding constraints to universal access, especially for the poorest. In brief, the two most important policy questions in the rural sector are:

- *Rural water*: How can communes most efficiently and sustainability reach the 33 per cent of the rural population still using an unimproved service?
- *Rural sanitation*: What promotion strategy would be most effective in convincing households to end open defecation, and should hardware subsidies be provided to households for latrine construction?

In terms of government programmes in the post-2015 context, follow-up programmes to the PN-AEPA have been developed for water (the PN-AEP) and for sanitation (the PN-AEUE), both focused on the 2016–2030 period. There are several reasons

Background on sanitation hardware subsidies

The question of whether and how hardware subsidies (e.g. latrine slabs and cement) should be provided to households has a long and chequered history. Sanitation, as a public good, is deserving of public finance – that much is not in doubt. However, the use of public finance to cover (partially or fully) the costs of household latrine investments is hotly contested. During the 1980s and 1990s, there were numerous failed supply-led programmes around the world. Often, in-kind subsidies of cement were used for other purposes. Often, latrines were built, but subsequently were not used. Subsidies do have their place in effective sanitation programmes, especially for the poorest. However, they need to be judiciously used, in a way which genuinely leverages household investment. To ensure that there is real demand, communication promoting behaviour change should be a programmatic priority.

why the government decided to have separate programmes. Firstly, there was a recognition that the rural sanitation challenge was distinct, requiring a different programmatic approach related to promotion and communication (and collaboration with other ministries, such as health). Secondly, the separate directorates general for water and sanitation are now established to the extent that each is able to lead its own programme. Thirdly, the new approach to rural water in the PN-AEP involves far greater links to the National Office of Water and Sanitation (ONEA) model, through the establishment of water production centres (CPEs), and serving up to 30 000 people through single schemes in rural areas, where appropriate. Policy challenges in the context of these new programmes are the focus of the remainder of this section.

4.1 Rural water

For rural water, the overarching policy question for the SDG era is how communes can most efficiently and sustainability reach the 33 per cent of the rural population still using an unimproved service. Underlying that are the more specific questions of what role ONEA should play in rural service delivery and how to ensure that existing services are sustained. The transfer of key responsibilities to communes in 2009 is likely to have been a major contributing factor to the stalled progress since that time. Supported by 13 regional WASH directorates (DREAs) linked to the lead ministry, they were made the contracting authorities (*maîtres d'ouvrage* in French) with responsibility for ensuring service provision. They are required to co-ordinate the planning and construction of facilities in their areas, as well as managing the service or delegating this function to the private sector. In 2009, communes were unfortunately not ready to take on such responsibilities – there were too few staff, and many of them did not have key competencies (including even literacy in some cases).

Thus, developing communes' capacity would take time. Unfortunately, the vital moment for doing this coincided with the political crises of 2011–2015, so it is easy to see why authority and resources were not effectively transferred. The PN-AEP 2016–2030 document acknowledges these challenges, also noting that the transfer of the necessary financial

resources to accompany the responsibilities has not fully occurred. In addition, the role of the DREAs also needs to be developed – they currently have the key say in resource allocation decisions, arguably having more influence than central government around which communes get public investment. This is important because only a small proportion of communes actually receive capital investment each year. Furthermore, since DREAs are in charge of drilling supervision, quality control and most procurement, they are vulnerable to outside influence.

The PN-AEP opens the door to ONEA playing a more significant role in rural water by supporting the development of multi-village CPEs. The PN-AEP suggests a phasing out of hand pumps over time in favour of piped supplies in rural areas. This would be quite a substantial change, especially since a third of the rural population remains unserved even with a hand pump. Other constraints include cost recovery from users, difficult hydrogeology in many hard-to-reach areas and the capacity of private operators.

The SDG targets may have had the unintended consequence of setting up governments to fail by implying that they must take on these very ambitious targets of universal access to water on premises, even in remote rural areas of poor countries. The government of Burkina Faso may have felt that they simply had to aim for this by 2030 under the PN-AEP, even if aspects of it seem unachievable, so as to avoid being seen as wanting anything less than the best for their citizens. However, it is not yet clear whether the plan is for CPEs (when implemented) to supply the majority of households by dedicated connections or by public taps. The latter option may be more workable since it would require lower per capita investment, and willingness to pay would not need to be as high. Even with hand pumps, present water consumption rates are reportedly very low, as people continue to use alternative, free sources wherever possible.

It also remains to be seen whether the government will be able to secure the huge financial resources required to achieve the PN-AEP targets. Public-private partnerships and similar approaches may help, but the local private sector does not have deep pockets. It is not unfair to say that to an outsider, the PN-AEP targets look unachievable by 2030, even if they are a long-term goal. The government may find that hand pumps are a key part of the landscape for many decades to come, so systems for ensuring their maintenance (and access to spare parts) should continue to be strengthened.

Furthermore, even if the PN-AEP targets were financially and technically achievable, the question of households' willingness and ability to pay the necessary tariffs to cover piped-on-plot water remains. Rural households in Burkina Faso are still extremely poor. Almost half the national population live on less than US\$1.90 per day, the international poverty line. Operating and capital maintenance costs are higher for piped services, meaning tariffs would have to increase to ensure the financial and operational sustainability of the systems.

The potential for ONEA's increased involvement in rural water represents a new challenge for that institution. It also presents an important equity consideration – tariffs vary a lot

across rural areas, and in some places they are higher than in urban areas. A recently approved tariff policy suggests that tariffs in rural areas should be lowered (without suggesting how this might be funded). It may be that, if ONEA assumes a bigger role in rural areas, implicit or explicit cross-subsidisation from urban to rural customers could take place. A new water policy, supposedly dealing with many of these issues, has been in draft for some time but has not yet been approved. The idea of the CPEs also involves some of them serving multiple cities, implying a large scale, which will be very challenging within current water resource constraints, not to mention new technical demands on the public and private sector. The PN-AEP 2016–2030 document notes the weak technical capacity of the local private sector, acknowledging that CPE scale-up may necessitate the involvement of international engineering firms.

4.2 Rural sanitation

For rural sanitation, the overarching policy concern in the SDG era is what promotion strategy would be most effective in convincing households to end open defecation, and what role government subsidies for household latrine construction should play. Underlying this, more specific questions are what the minimum service standard is that campaigns should promote and what level and type of subsidies should be provided to households.

At the beginning of PN-AEPA, most funding for 'sanitation' in rural areas was earmarked for institutional, rather than household, latrines. However, a large-scale national sanitation survey in 2010 concentrated minds with its finding that less than 1 per cent of rural households used an improved latrine, according to the national definition. The president launched the National Sanitation and Hygiene Campaign in the same year, which did produce some results. Nonetheless, such promotional interventions are still in their infancy. Work remains to be done in identifying the approaches that will be the most effective in Burkina Faso, where social norms around open defecation are deep-seated. The PN-AEUE document identifies further weaknesses needing attention. Alongside the challenges associated with commune-led planning and implementation encountered with rural water, the document also flags insufficiently qualified local enterprises (to construct the latrines) and weak communication strategies so far.

The PN-AEPA 2007–2015 clung to a high subsidy (90 per cent) approach until 2010, which, together with high technological standards and ineffective promotion, meant that donors were reluctant to invest. However, not all stakeholders followed the lead, with most NGOs applying a 30 per cent subsidy in practice. Even now under the PN-AEUE 2016–2030, the vision is that the programme funds a 100 per cent subsidy for 215 000 latrines for the poorest, and a 50 per cent subsidy for some 1.5 million latrines for most of the rest of the population. Only 220 000 households are expected to fully fund latrines themselves. This kind of approach, in terms of which a high proportion of latrine capital costs are subsidised, is unusual these days, and it remains to be seen whether the required funds for this huge investment will be secured. Furthermore, with these types of heavily subsidised

programmes, there is always a risk that households will not adopt such a high latrine standard, which still involves a significant outlay on their part.

There is a slightly more nuanced approach currently under discussion, whereby more investment in behaviour-change communication activities takes place first, and the idea of subsidies is only introduced later, once demand has been established. While disagreement remains about the best approach, the PN-AEUE programme document is not followed by many stakeholders (e.g. various donors and NGOs). As long as funding is not secured, it remains a vision rather than what is implemented in practice.

This situation illustrates a key tension between the idealised principle of zero-subsidy low-cost sanitation, and the practical

reality that a toilet of ‘acceptable’ quality is likely to be unaffordable for many rural households. High out-of-pocket expenditure by poor households on sanitation is a cause for concern from an equity perspective. A particular challenge in Burkina Faso that complicates the subsidy debate is that the prevalent soil type is quite unstable. This leads to latrines collapsing if they do not have a well-constructed substructure to support the pit and provide a solid basis for the slab, which unfortunately costs money, and militates against low-cost self-supplied latrine solutions using local materials. This is one argument commonly raised to support the use of subsidies in this context. Urban WASH is not the focus of this case study but, for context and comparison with rural areas, some aspects are considered in the box below.

Progress on urban WASH

Urban water

Urban water is at near universal access (95 per cent), with ONEA seen as a high-performing utility. In the late 1990s, ONEA progressively improved its performance (from a technical and financial perspective). For most of the past decade, it has kept non-revenue water rates below 20 per cent, which is far better than most African utilities. It maintains pro-poor policies, such as social connections, an affordable pricing policy and a cross-subsidy from the water bill to fund sanitation services. As well as leading on WASH services in any settlement of more than 10 000 people, it is increasingly taking on lease contracts for settlements smaller than that. This approach is planned to be extended in the future under the PN-AEP 2016–2030.

Urban sanitation

Despite high ‘improved’ coverage, urban sanitation still faces a big challenge around the large numbers of people sharing latrines. Estimates for the achievement of SDG-defined ‘basic’ sanitation stagnated at just below 50 per cent during the PN-AEPA era. ONEA also manages sanitation in urban areas and, although the picture is less rosy than for water, progress has been made. Strategic sanitation plans have been developed in most cities. Subsidisation is less of a feature of the PN-AEUE’s plans for urban areas, and only the poorest households receive subsidies (which means about 20 000 latrines with a subsidy of about 50 per cent). ONEA has developed a ‘sanitation surcharge’ on the water bill (often referred to as a model for other countries to follow), which historically has funded sanitation programmes.



5. Conclusion and discussion questions

Overall, it is fair to say that the urban WASH sector in Burkina Faso is far ahead of the rural sector in terms of institutions, infrastructure and service levels. While urbanisation continues apace, projections suggest that 60 per cent of Burkinabè will still live in rural areas in 2030.

Since access levels are so much lower in rural areas, these should remain the priority during the SDG era, particularly in the move towards universal access. As indicated above, the role of the communes in this is key, for both rural water and rural sanitation.

Some discussion questions to stimulate debate amongst participants are given below.

1. *Rural sanitation subsidies* – Is a 50 per cent subsidy approach (alongside a 100 per cent subsidy for the poorest) likely to be cost-effective⁵ in rural Burkina Faso

where social norms support open defecation? How can subsidies best be structured to incentivise uptake and behaviour change?

2. *Rural water service levels* – The PN-AEP 2016–2030 plans to phase out hand pumps and move towards piped services. Is this realistic when a third of the rural population still do not even have a hand pump service? Assuming the answer is yes, how should this expansion be funded?
3. *Supporting communes* – How should the Ministry of Water and Sanitation, and its regional directorates, support rural communes in fully taking on their roles with respect to water and sanitation? How can it be ensured that communes have the financial resources to fulfil their mandates, while balancing this against the risk that they lack the required expertise or motivation, or that they might mismanage funds?

⁵ *Cost-effectiveness is the extent to which the program has achieved or is expected to achieve its results at a lower cost compared with alternatives*

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