5 Access to safe water

Having clean water piped into homes is a service and luxury that most people in formal urban housing take for granted. But for many Namibian households, especially those in rural areas, supplies of clean water is but a wish, indeed a pipe dream unknown to those who have never experienced this service.

The main reason for having clean drinking water is to avoid water-borne diseases that cause such illnesses as gastro-enteritis, cholera, diarrhea and bilharzia. The incidence of these sicknesses can be substantial in certain rural areas of Namibia.6

Most homes that lack safe water are in places where clean water is not available. However, there also many people who do live close to supplies of treated water but still lack access to safe drinking water. Their households may be too poor to afford pipe systems or they live in informal housing areas which are not serviced by municipal water supplies.

The maps presented here show the proportion of households which do not have access to clean or safe water because their water comes from rivers, dams, canals or open wells. Homes that have supplies of safe water obtain them from piped treated water or from boreholes.

Figure 19. The proportion of households that did not have access to safe water in 2001 because their drinking water was obtained from canals, rivers, dams or open wells. Only 7% or about 23,000 of all Namibian households did not have access to safe water in 2001.
Some general trends regarding safe water are clear from the maps. Thus, households that live close to Namibia’s few perennial rivers (the Orange, Kunene, Zambezi, Kwando and Okavango) often use unsafe river water for drinking. By contrast, many rural households living in remote areas, even homes that are obviously poor in other respects, have access to safe water from boreholes. Within urban areas, there is usually a significant distinction between formal suburbs which have safe water and informal settlements that often obtain unsafe water from open canals, wells or rivers. Most poor rural homes are also a significant distance from their sources of water.
Most of the homes that do not use treated or borehole water are located close to the Okavango and Zambezi Rivers, as well as to channels of the Zambezi that cross the eastern floodplains. Large numbers of people suffer from bilharzia because of their use of water from these rivers.

Away from the rivers, most rural homes use water from boreholes which is usually clean and safe to drink. Most people in both formal and informal areas of Rundu and Katima Mulilo have access to clean water.

The Kwando River is used by people and wildlife as a source of water.
Figure 21.
The proportion of households in Omusati, Oshana, Ohangwena and Oshikoto that did not have access to safe water in 2001.

Most of the homes that do not use treated or borehole water obtain their water from hand-dug wells. Shallow wells, many of which are also used by livestock, are known as *omifima*, while deeper wells from which is drawn to the surface in buckets are called *eendangu*.

There is also an extensive network of pipelines that covers much of the densely populated area of these four regions. The water is pumped at Calueque in Angola from the Kunene River and then treated before being distributed through pipelines.
Figure 22. The proportion of households in Kunene and Erongo that did not have access to safe water in 2001.

The highest proportions of homes that use unsafe water are along the Kunene River.
The great majority of homes use safe water for drinking because it is pumped from boreholes in most areas of these three regions. In addition, most larger towns have pipeline networks that distribute treated water.
The great majority of homes use safe water for drinking because it is pumped from boreholes in most areas of these regions. The majority of larger towns have pipeline networks that distribute treated water.

A significant number of households in the communal areas around Berseba and Tses do not have access to safe water, however.
6 Cooking fuels

As is true for access to safe water, most of us who live in formal homes can afford electricity or gas to prepare our meals. Wood fuel for cooking is unknown to us, except for barbeques or braais.

The majority of Namibians, however, do not have sufficient cash to buy electrical or gas power and thus have to use wood to cook their food. This was true in 2001 for 62% of households (or 215,000 households), which is a significant improvement over the 74% of homes that cooked on wood in 1991. The decline in wood use was accompanied by an increase in the use of electricity, which reflects increasing access to cash wealth. These changes occurred to a greater or lesser extent in all the regions, as the graphs below show.

Although most fuel wood is harvested or collected for free, the use of wood comes with several costs: the time and opportunity costs incurred in searching for wood, health hazards from smoke-filled houses, and the possibility of homes being damaged by fires.

Figure 25. Percentages of households using wood (top) or electricity (below) for cooking in 1991 and 2001.
Overall, the use of wood for cooking is most prevalent in northern and central Namibia where wood is relatively abundant compared to the un-wooded south, and also in communal areas where many residents cannot afford other fuels. The cost of buying electrical power is prohibitively high for most people in rural areas.
Almost all rural households in these two regions rely on wood for cooking. The same is true for informal homes in Rundu and Kavango, and it is only in formal housing areas that other fuels are used to a significant extent.
Wood is used by the great majority of rural homes in these four regions. An interesting exception is in the grassland areas (called *ombuga*) south of Oshakati and Ondangwa where little wood is available. Poorer households in these areas use dried cattle dung for fuel, while the significant number of comparatively wealthy homes here use gas for cooking.

Substantial numbers of rural homes on resettlement and freehold farms around Tsumeb have electricity supplies.
Figure 29. The proportion of households in Kunene and Erongo that used wood for cooking in 2001.

The greater use of wood in the northern areas is due both to the greater abundance of trees there and the higher proportion of poorer homes than further south in these regions. Residents in informal settlements in places such as Swakopmund and Walvis Bay obtain much of their wood fuel from local rubbish dumps.
The greatest use of wood for fuel is in the eastern and north-eastern areas where wood is somewhat more abundant than elsewhere. Many of these wood-using areas are also on communal land.

People who live in informal urban areas use considerably more wood for fuel than those in formal housing. This difference can be seen clearly in such towns as Gobabis, Okakarara, Otjiwarongo, Okahandja and Windhoek.
Figure 31. The proportion of households in Hardap and Karas that used wood for cooking in 2001.

Compared to other regions in the country, rather small proportions of households use wood for cooking in Hardap and Karas. The highest levels of wood use are in the Rehoboth area and the communal lands between Gibeon and Keetmanshoop.
7 Sanitation

Access to private toilet facilities is another measure of the welfare of Namibians, and the figures and maps provided below show that much of the country’s population is divided between those who have their own sanitary facilities and those who use open, outside places as ‘bush’ toilets.

As is the case with many other measures of poverty, the most conspicuous difference is between high rates of ‘bush use’ in communal areas and informal urban areas compared with greater access to private facilities that are linked to sewage systems and pits in formal town areas and freehold land. The 2001 Population & Housing Census used the following categories of toilet facilities: Flush toilet not shared, Flush toilet shared, Ventilated Improved Pit (VIP), Pit long drop, Bucket/pail, Bush and other. The figures given here are for “Bush”.

An improvised toilet in the informal DRC settlement in Swakopmund.

Figure 32. The proportion of households that used the bush as a toilet in 2001. In the country as a whole, 54% or about 187,400 households relied on bush toilets.
Figure 33.
The proportion of households in Caprivi and Kavango that used the bush as a toilet in 2001.

Almost all households use the bush as a toilet in the rural areas of these two regions. The same is true for homes in informal housing areas of Katima Mulilo. Most households in the formal areas of Katima Mulilo and Rundu have private toilets and sewage systems.
Aside from freehold and resettlement farms around Tsumeb, the majority of rural households have no formal sanitation or sewage systems. However, a significant number of homes in the densely populated swathe between Ondangwa and Outapi do not use the bush for their relief, and thus have other private toilet facilities.

Most urban areas, even those that are informal settlements, have private toilet facilities. Exceptions to this are seen in the high proportions of 'bush toilets' in Helao Nafidi and Ontoko.
The highest proportion of open air bush toilet use is in the northern rural areas of these two regions. To the south in the Erongo region, most households have private toilet facilities.
There is a marked difference in the frequency of bush toilets versus private facilities between the communal and freehold areas, as well as between informal and formal housing in urban areas. Problems of sanitation are often most severe near densely populated informal settlements. For example in 2001, the members of about 8,400 households used the bush for their toilet in and around the informal settlements of Windhoek.
Residents in the two southern regions generally have greater access to private facilities and formal sewage systems than elsewhere in the country. However, the majority of people in informal urban households relieve themselves in the bush. The same is true for people living in the former Namaland communal area.