## **WASH**

# Access to safe water and sanitation - a basic prerequisite for rural development



#### **Abstract**

Access to water and sanitation is a human right and a basic requirement for living a dignified life. Yet around 2 billion people worldwide lack access to safely managed water services, and 494 million people are still practicing open defecation, of whom 92% live in rural areas (WHO/UNICEF, 2021). Each year, 297,000 children under five die of diarrhoeal diseases as a consequence of polluted drinking-water and inadequate sanitation and hygiene (WHO, 2019). WHH promotes integrated, multipleuse water services to ensure sustainable water security and sanitation in rural areas.

By far the largest amount of water world-wide is used for the irrigation of agricultural crops. Rural development strategies must concentrate on both supplying water to the population and providing sufficient water for agricultural requirements. Hence an integrated management approach to water use is essential. To ensure this, all sections of society must have a voice in planning investments in infrastructure for water supply and for wastewater disposal as well as in respect to the management of the necessary related services at the local level. Good governance also entails the creation of functioning state institutions which ensure the implementation of participative regional planning and the development of physical infrastructure designed to reduce poverty.

Water is central to living, encompasses every aspect of life. In 2010, the United Nations General Assembly recognized the right to water, sanitation, and hygiene (WASH) services and acknowledges the fulfilment of this right as being a prerequisite for the realization of other human rights (United Nations General Assembly, 2010). In other words, WASH is essential to overcome poverty and hunger. Yet universal access to safe drinking water, sanitation and hygiene remains elusive and inequalities in access are prevailing around the world. Globally, an estimated 2 billion people do not have access to safely

managed drinking water, while 3.6 billion people lack access to safely managed sanitation services, and 494 million are still practicing open defecation (WHO/UNICEF, 2021). Disparities exist between the poorest and richest populations, between different geographic regions, and between urban and rural areas (GWN, 2019). Particularly people in developing countries living in rural areas are facing extensive challenges regarding their access to WASH facilities. For example, eight out of ten people who lack even basic services are living in rural areas while around half of them live in LDCs (WHO/ UNICEF, 2021). Where there is a lack of the most basic hygiene, clean water and sanitation facilities there is a risk of serious consequences: a contaminated environment, increased child mortality, malnutrition and reduced educational opportunities, especially for women and girls (cf. section on gender justice) (GWN, 2019).

"Leave no one behind" is the central promise of the 2030 Agenda for Sustainable Development. However, women and girls are disproportionately affected and are particularly hit by a lack of facilities to manage their menstruation safely and with dignity, negatively impacting their health, wellbeing, and community life (Caruso et al, 2017; Hennegan et al, 2019) (cf. section on gender justice). Moreover, in the past, WASH efforts have unequally reached wealthier and more accessible populations. The access to WASH facilities should be inclusive and it must be ensured that the poor and marginalized have an adequate water supply (cf. section on civil society). WASH for all can only be successful if inequalities between the provided and unprovided are reduced to progressively realize the human rights to water and sanitation (GWN, 2019).

Water is not only central for survival, but also subject to diverse demands. It is used for drinking, hygiene, food production and various commercial and

industrial purposes, e.g., as a coolant, an auxiliary material or for energy storage. Often, water services are provided for a single use - typically for drinking or irrigation. However, when using irrigation systems for drinking, unintended consequences can risk people's health. Thus, WHH aims to implement multiple-use water service projects which include supporting both agricultural production and domestic activities to strengthen health, livelihoods and environmental benefits, while enhancing sustainability. Moreover, in the past, there was a tendency to prioritize drinking water supplies over sanitation because of their lower per capita cost (GWN, 2019). However, it is crucial that access to sanitation and hygiene be given as much attention as access to water services to enable all people to live in dignity and health. The SDGs will only be attainable when upgrading sanitation and hygiene in development strategies and their implementation. This entails setting up and operating toilet facilities and appropriate hygiene measures. Service structures must be established to ensure the management and operation of water and wastewater infrastructure (wells, pumps, reservoirs, dams, sewage systems, etc.). This includes local self-help structures as well as private and public service providers. Functioning sanitation systems that take the entire disposal chain into account are an important contribution to disaster risk reduction and climate adaptation. The goal must be to provide sanitation facilities and access to drinking water to all people (GWN, 2019).

Furthermore, the sustainability of WASH interventions through the promotion and application of systemic approaches must be prioritized. For far too many people in rural areas, water and sanitation services are still unreliable and substandard. An estimated 30% of installed hand-pumps are nonfunctional and another 40% are only partially working, on average, after three to five years of installation due to insufficient financing, poor maintenance and a lack of local management. Investments in governance structures, institutions, legal frameworks and anti-corruption must be ensured to strengthen the institutional and political system and to enable the fulfilment of its responsibilities (GWN, 2019). In water scarce areas disputes about its use often lead to conflicts which may turn violent. Disputes of this kind could arise on the basis of ethnic origin; they also occur between states (e.g. countries bordering the Nile). Treaties and agreements on joint water use may lead to better neighbor relations (Manu River Union).

Sixty-nine per cent of fresh water is used to irrigate about 17 per cent of global agricultural land - and in countries where water is scarce, the rate can be up to 90 per cent. These areas produce 40 per cent of the world's total harvest. As the demand for agricultural products rises, fertile areas with an assured water supply (rainfall or irrigation) will become increasingly important. One of the main reasons for large-scale purchases of land in Africa is the availability of water there (cf. section on land). Extreme weather events due to climate change will lead to increasing difficulties in securing access to water for agricultural production. Water can also be a source of risk to people, particularly in the form of flooding. Extreme weather events can cause considerable problems and damage (e.g. mudslides, droughts – cf. section on climate change).

The fact that a considerable amount of water is wasted must also be taken into account. In industrialized countries, around 25 per cent of water is lost in the distribution system. The losses in piping systems in developing countries can be up to 50 per cent. Irrigation of crops is also often very wasteful. Efficient systems (sprinklers, micro-irrigation or drip irrigation systems) are used on only 11 to 16 per cent of the irrigated land worldwide. Investment in irrigated agriculture, water retention and storage (cisterns, retention ponds, dams, water harvesting techniques) should be implemented in a socially balanced way and should be planned and managed in a participatory manner. The structures and systems should be operated preferably by the users or user groups, and special training should be an integral part of the investments. This is particularly important because incorrectly operated irrigation systems can result in permanent, irreversible soil degradation, and agriculture can also cause water pollution.

Site-specific agriculture can make an important contribution to water protection: soil improvement measures increase the soil's water storage capacity and control erosion. Suitable vegetation cover slows down water run-off, hence it contributes to erosion prevention and renewal of groundwater. Additional efforts are needed to improve efficiency in rain-fed

agriculture – site-specific agriculture takes this into account (cf. Section on agriculture).

Welthungerhilfe's involvement in promoting equitable and efficient access to water and sanitation in developing countries:

- Supporting integrated water and watershed management.
- Promoting efficient rainfed agriculture and where not possible the establishment or rehabilitation of irrigation systems.
- Promoting the rational and appropriate use of water in agriculture (avoiding waste and salinization).
- Promoting water retention and water storage systems (e.g. retention ponds, dykes, water harvesting) to enhance water availability.
- Supporting the construction and rehabilitation of water supply and wastewater disposal systems. The target group's basic sanitary requirements and hygiene measures are equally taken into account.
- Promoting and distributing menstrual cups as a sustainable menstrual product so that women and girls can participate in everyday life.
- Taking into account the local context and the expected demand for multiple-use water services, reflecting the multiple water needs of households, already at planning stage.
- Supporting conflict mediation in respect to water rights disputes.

Welthungerhilfe's demands in relation to the equitable and sustainable access to water and sanitation in developing countries:

- Linking water management with food and nutrition security.
- Promoting the integration of water quality and water storage interventions.
- Ensuring equitable access to water services at fair and socially acceptable prices.
- Protecting water catchment areas and water sources from pollution and over-use, including appropriate land use planning and sustainable water management.
- At least 50% of ODA funds invested in the WASH sector should be allocated to the poorest of the poor – to support a progressive realization of the human rights to water and sanitation.
- Multiple-use water service projects supporting both agricultural production and domestic water use should be implemented to provide a household with water irrigation systems and access to clean drinking water services and thus, to improve health, livelihoods and environmental benefits, while enhancing sustainability.
- An intensified focus on the sustainability of WASH interventions through the promotion and application of systemic approaches that holistically understand and strengthen local and national WASH systems.
- To ensure gender justice, it is crucial to promote universal access to menstrual products, especially to women and girls living in LDCs and in rural areas.
- Promoting and ensuring the peaceful use of joint water resources (above all surface water, but also including groundwater sources).

### References

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