Key facts about WASH and Nutrition

The deaths resulting from undernutrition overshadow those caused worldwide by HIV AIDS, Malaria and Tuberculosis. According to the World Health Organisation (WHO), at least 50% of the combined undernutrition in children is associated with unsafe water, inadequate sanitation or insufficient hygiene. The lack of water and sanitation and the resulting diseases, i.e. repeated diarrhoea or intestinal worm infections, often directly lead to a reduced nutritional status. These diseases negatively affect the body’s ability to take in nutrients from food and generally weaken the immune system. Children in developing countries are the most severely affected.

In addition to these direct links between WASH and nutrition, there is a variety of more indirect implications. Without access to safe water close to home, people often have no choice but to drink water from unprotected sources. Time spent suffering from water-related diseases or collecting water reduces time for education, economic activities and good hygiene practices. Where safe water is available for purchase from vendors, high water prices often leave less money available for food and other necessities.

Evidence for the link between WASH and Stunting

In recent years, there has been growing scientific evidence implying a close link between the lack of WASH and stunting. Stunting, which means low height for age can be a marker of a whole range of developmental setbacks of children including cognitive impairment.

What are the main water routes to undernutrition?

Adapted from Dangour, et al. (2013)
Demographic and Health Survey data show that differences in exposure to open defecation can statistically explain more than half of the variation in average child height across developing countries. Studies show that access to safe drinking water and improved sanitation can be associated with 35% of the variation in stunting rates across countries. Thus, WASH interventions can have a positive impact on reducing stunting incidence rates. A comprehensive meta-study (Fewtrell et al., 2005) shows the positive impact of WASH interventions on the diarrhoeal morbidity rate of children under 5 years:

### Impact of WASH activities on diarrhoeal morbidity in children under 5 years, % impact

<table>
<thead>
<tr>
<th>Activity</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source water treatment</td>
<td>11</td>
</tr>
<tr>
<td>Water supply</td>
<td>25</td>
</tr>
<tr>
<td>Hygiene intervention</td>
<td>28</td>
</tr>
<tr>
<td>Sanitation</td>
<td>32</td>
</tr>
<tr>
<td>Point of use water treatment</td>
<td>39</td>
</tr>
<tr>
<td>Hand washing with soap</td>
<td>44</td>
</tr>
</tbody>
</table>

Fewtrell (2005)

### WASH interventions of the German Development Cooperation

The evidence shows that water, sanitation and hygiene interventions offer a good lever to reduce stunting and fight under- and malnutrition. The German Development Cooperation has a long-standing experience with conceptualising and implementing WASH interventions in different countries worldwide.

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**Experience from Kenya**

The water sector reform programme in Kenya aims at increasing sustainable access to safe drinking water and basic sanitation for the urban poor. One part of the programme consists of implementing a financing mechanism for water and sanitation infrastructure. This Water Service Trust Fund works together with water utilities to conduct projects providing water and sanitation services in poor urban areas nationwide. So far, about 1.4 million people have gained access to safe drinking water and approximately 100,000 people now have access to public toilets.

### WASH in schools

In South East Asia, German Development Cooperation supported the Ministries of Education in Cambodia, Lao PDR, the Philippines and Indonesia to successfully implement the “Fit for School” approach. It targets hygiene-related behavioral change via several WASH-related interventions: Daily teeth brushing and hand washing with soap are integrated into the children’s normal school day in the form of group activities. Children also get deworming treatment twice a year. Further, the programme involves improving water supplies and sanitary services, in particular through the installation of hand washing stations. In the Philippines, school feeding activities even more directly improve the children’s nutritional status and attendance rates are currently being tested.

### Linking Nutrition and WASH in Burkina Faso

In Burkina Faso, efforts have been made to integrate WASH-related components into a food security programme of the German Development Cooperation. Here, hygiene-related behavior change measures and an extended view on the quality of the accessible drinking water are helping to reach the nutritional goals and making them sustainable.