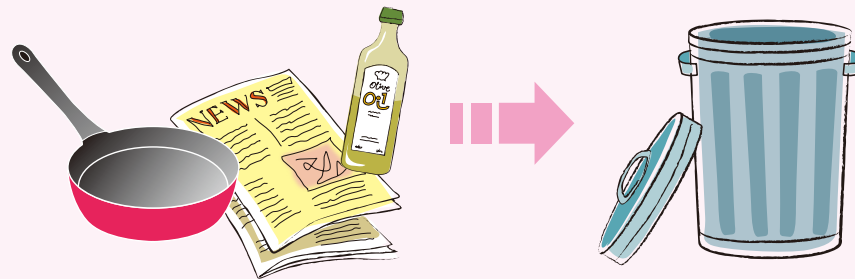


Precautions when using a domestic wastewater treatment facility

Do not discharge the used oil directly in the sink. It will cause pipe clogs. Let us use a newspaper to absorb it and dispose of it as burnable garbage.



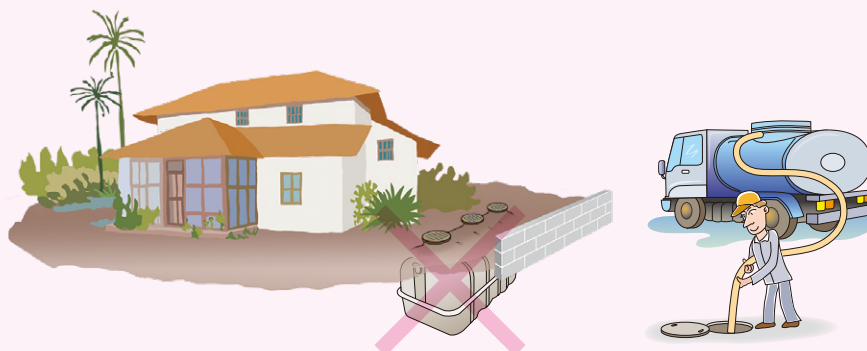
Do not flush large amounts of pesticides and disinfectants. Those materials are harmful for the biological treatment.



Do not throw trash in the toilet bowl or manhole.



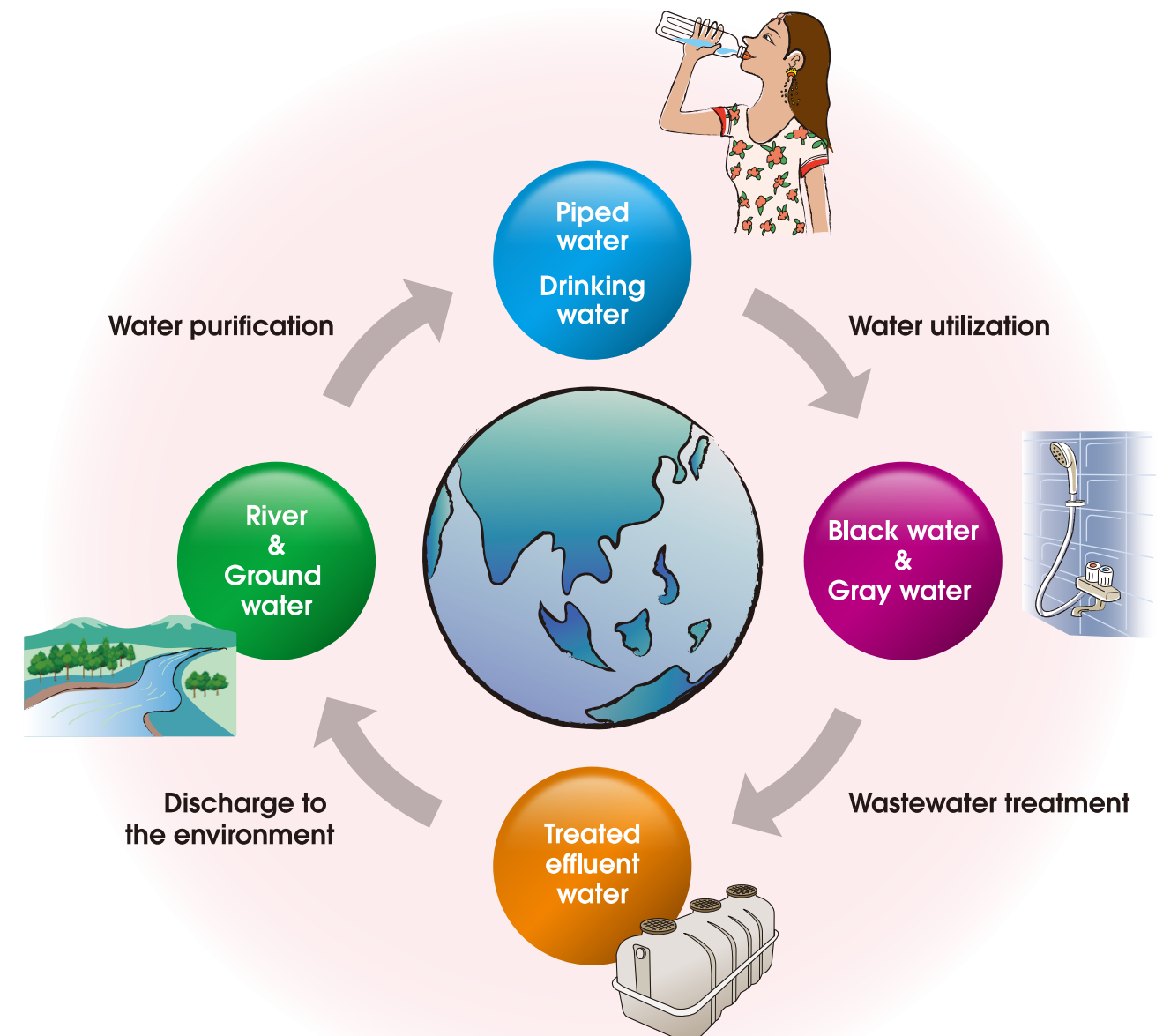
To make sludge removal easier, a wastewater treatment facility should not be installed under the floor of a house.



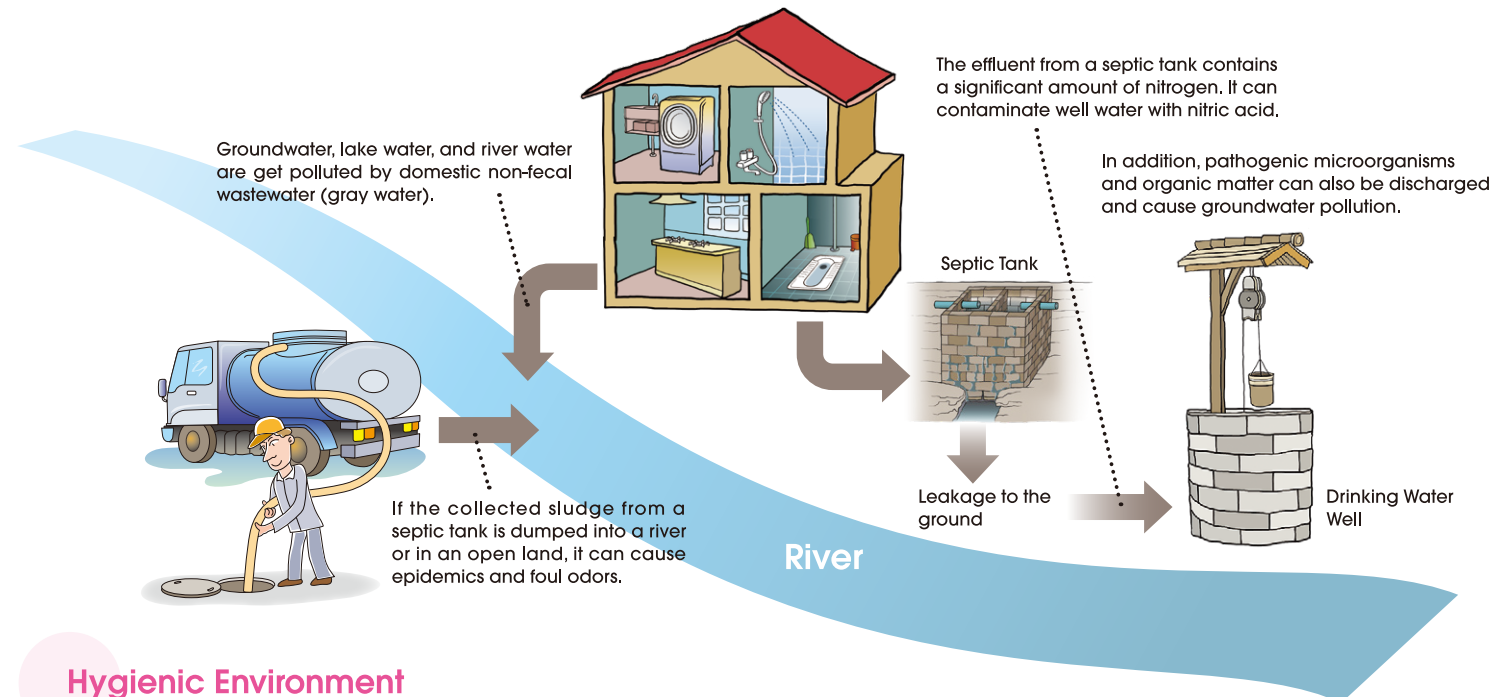
Appropriate treatment of domestic wastewater Protection of People's Health and the Water Environment



The Ministry of the Environment supports the Sustainable Development Goals

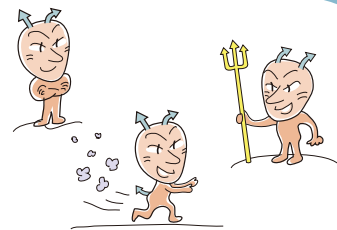


01 Problems caused by INAPPROPRIATE domestic wastewater treatment



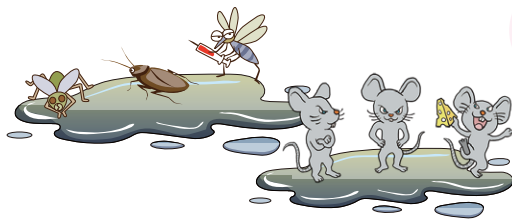
Hygienic Environment

There is more exposure to the microorganisms causing infectious diseases such as cholera, dysentery, typhus and polio. Diarrhea caused by contaminated water is particularly fatal to infants. Every year, 525,000 children under the age of 5 die from diarrhea (WHO, 2017). If sanitation facilities, such as toilets, are flooded during the rainy season, the risk is even higher.



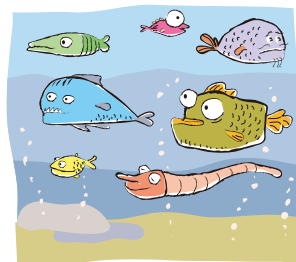
Living Environment

Rat and Pests, such as mosquitoes, flies and cockroaches, are more likely to occur. In addition, foul odors have adverse effects on the human body such as discomfort, headache, and loss of appetite which reduce the quality of life.



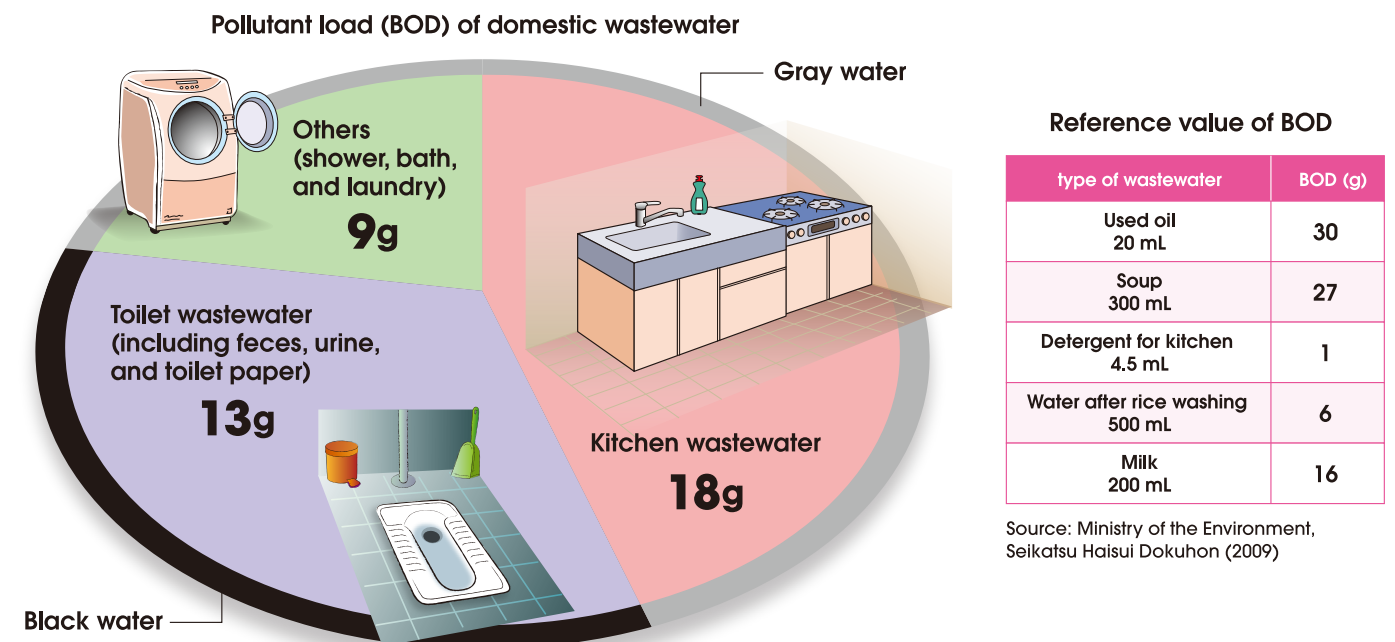
Water Environment

If the nutrients (nitrogen and phosphorus) contained in wastewater are not removed and flow into rivers and lakes, a large amount of blue-green algae blooms can occur. The toxin called microcystin produced by blue-green algae is harmful to the human body and livestock. Water bodies in such condition are the environment where fishes can hardly live.



02 Importance of gray water treatment

Not only black water (toilet wastewater), but also gray water (non-fecal wastewater originating from the kitchen, washing machine, shower/bath, etc.) is contaminated by many kinds of pollutants. In particular, wastewater from the kitchen contains a lot of detergents, oils and fats.



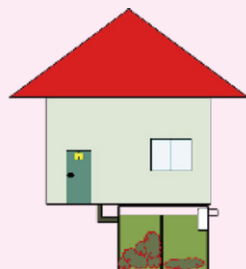
The figure above shows a breakdown of the pollutant load of BOD in the wastewater generated in one day by one person in Japan. BOD is used as an indicator of the degree of water contamination. The BOD load of toilet wastewater is 13g, while the BOD load of kitchen wastewater is 18g.

03 Necessity of appropriate domestic wastewater treatment to protect people's health and the living environment

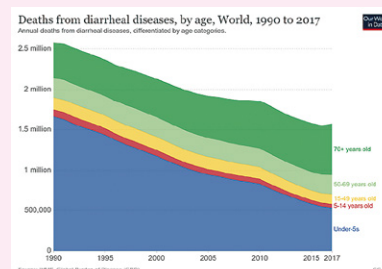
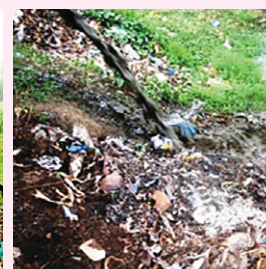
- Use domestic wastewater treatment facilities with reliable treatment performance (such as the Japanese Johkasou) instead of septic tanks.
- Ensure the appropriate operation and maintenance of domestic wastewater treatment facilities, including regular desludging.
- Do not accept illegal sludge dumping and promote appropriate treatment in sludge treatment plants.



In many cases, decentralized wastewater treatment facilities such as septic tanks are installed under the floor of the houses. It is unsanitary when flooding occurs and requires to damage the floor for desludging. Decentralized wastewater treatment facilities should be installed at a certain distance by the outdoor wall of the houses.



View of the illegal dumping of sludge in an open land instead of transporting it to a sludge treatment plant. The surrounding area is contaminated with human waste, which is unsanitary and causes a foul odor.



Although it is gradually decreasing, diarrhea caused by unsanitary drinking water remains one of the main causes of death in infants and the elderly.

Source: <https://ourworldindata.org/grapher/deaths-from-diarrheal-diseases-by-age?time=earliest..latest>



Scene of a lake where blue-green algae blooms occurred. The generation of offensive odors, the death of fish, and the damage of landscape can adversely affect the tourism industry. There have also been reports of large numbers of livestock and waterfowl dying after they drank water containing blue-green algae.

Source: Dr. XU Kaiqin



View of a river polluted by domestic waste and untreated domestic wastewater. The pollutant loads accumulated in the river-bed causes fermentation which generates gases and offensive odors. Once a river is seriously polluted, it takes many years to recover.