

Benefits of Wastewater Management

A more circular approach to wastewater could result in economic and social benefits and contribute to progress toward the Sustainable Development Goals (SDGs), according to a publication by the UN Environment Programme (UNEP)

Titled 'Sanitation, Wastewater Management and Sustainability: From Waste Discovery to Resource Recovery,' the report documents the economic value of wastewater and provides examples of innovative opportunities for recovery and reuse of domestic waste flows. The report emphasizes that the amount of municipal wastewater produced annually is sufficient to irrigate 15% of all currently irrigated land or to power 130 million households through biogas generation. It further notes that US urban wastewater has an economic value of US\$280 per ton of sludge, and that adequate sanitation in India could save US\$54 billion annually by reducing healthcare and water provision costs.

Municipal wastewater contains 25% of the nitrogen and 15% of the phosphorous applied as chemical fertilizers, as well as large amounts of iron, chloride, copper, boron and zinc, according to the report. It observes that, in one day, the amount of nitrogen, phosphorous and potassium flushed by a city of ten million people is enough to fertilize about 500,000 hectares of agricultural land.

Examples of innovative opportunities for recovery and reuse of domestic waste flows include using sludge as construction filler material in Sweden, and using duckweed to clean water in Niger. In Laos, wastewater could produce enough biogas to enable local buses to travel 10,000 kilometers



every day.

The report also explains how sustainable sanitation and wastewater management, including safe and equitable access, can contribute to meeting a wide variety of SDG targets, including accelerated progress on SDG 6 on ensuring water and sanitation for all.

Source: [UNEP](#)

