

# WASTEWATER



**70% of wastewater from high income countries is treated, 38% in middle-income.** 28% in lower middle-income with only 8% from low-income countries receiving any form of treatment.<sup>1</sup>

**The reuse of wastewater can ease the demand on limited fresh water supplies and improve the quality of streams and lakes by reducing discharged effluent.** Wastewater can be a resource – as a source of reclaimed water, biogas and useful biosolids.<sup>2</sup>

**Globally 2,000,000 tonnes of sewage agricultural and industrial wastes enters waterways daily.**<sup>3</sup>

**85-90% of all Wastewater or sewage enters the Caribbean Sea untreated with implications for human health, environment quality and productive activities.** Farmers and labourers exposed to domestic wastewater have reported fevers, diarrhea and sores on their hands and legs as a case in point.<sup>4</sup>

**The 330 km<sup>3</sup> of municipal wastewater produced globally each year is enough to irrigate 40,000,000 hectares (equivalent to 15% of all currently irrigated land) or to power 130,000,000 households through biogas generation.**<sup>5</sup>

**Approximately 15% of the Caribbean's coral reefs are currently threatened by marine sources of pollution such as wastewater discharge from ships.**

Sewage runoff causes serious damage to coral reefs because it stimulates the growth of aquatic plants and algae which threatens marine life.

**Diarrhoeal diseases kill about 2,000,000 children and cause about 900,000,000 episodes of illness each year.** Over half of the world's hospital beds are occupied by people suffering from water-related diseases.

**Only 17% of households in the Caribbean are connected to an acceptable sewage treatment system.**<sup>6</sup> Some countries depend on poorly functioning septic tanks and pit latrines.<sup>7</sup>

**It is estimated that each individual in a hotel produces 40-100 US gallons of wastewater each day, significantly more than local persons.**<sup>8</sup>

**Greater levels of wastewater reuse or recycling will create a climate-independent water source that is dependable, locally controlled and generally beneficial to the environment.**

<sup>1</sup> United Nations University, Institute for Water, Environment and Health (UNU-IWEH), World lacks data on water re-use. Accessed 2016-08-11. <http://inweh.unu.edu/rising-reuse-wastewater/>

<sup>2</sup> GEF CReW, 2013. Wastewater as a Resource. Accessed 2016-08-11 <http://www.gefcrew.org/index.php/world-water-day-2016-water-and-jobs>

<sup>3</sup> UNEP 2008, Marine Litter in the Wider Caribbean Region: A Regional Overview and Action plan, United Nations Environment Programme, Kingston, Jamaica.

<sup>4</sup> UNEP, 2015. Economic Valuation of Wastewater: The cost of Action and the cost of No-Action. The Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA).

<sup>5</sup> UNEP/SEI 2015 Sanitation, Wastewater Management and Sustainability: From Waste Disposal to Resource Recovery.

<sup>6</sup> GEF/CReW, 2013. Wastewater and Tourism. Accessed 2016-08-11 <http://www.gefcrew.org/index.php/multimedia>

<sup>7</sup> World Resources Institute, 2016. Accessed 2016-08-11. <http://www.wri.org/blog/2016/06/beneath-caribbean-sea-wastewater-problem-lurks-unnoticed>

<sup>8</sup> UNEP, 2010. Sick Water: The Central Role of Wastewater Management in Sustainable Development.