Assessment of sanitation situation and feasibility of DEWATS in Western Regional Hospital Pokhara and Bhaktapur Hospital

Status: Ongoing

Project Partner: Nepal Health Sector Support Programme 3 (NHSSP-3)

Project Area: Western Regional Hospital Pokhara and Bhaktapur Hospital

Project Duration: June 2019 to September 2019

Aim:
- To assess the condition of the existing wastewater treatment system in the selected hospitals and conduct feasibility study of Decentralized Wastewater Treatment System (DEWATS)

Project Description:
Nepal Health Sector Support Programme 3 (NHSSP3) has included Green Retrofitting along with Structural and Functional retrofitting which includes improvement of environmental performance, energy efficient, water quality, waste management and indoor air quality. As a part of implementation of green retrofitting, the assessment of existing wastewater management and a feasibility study of wastewater management through decentralized wastewater treatment system (DEWATS) is conducted.

The sanitation situation assessment and feasibility of DEWATS in the hospitals is assessed based on the factors such as occupancy rate, effluent quality, availability of land, power requirement, capital investment and annual O&M Cost. Both hospitals consist of combined wastewater collection system where all types of wastewater generated in the hospitals are collected into one main pipe. As per the calculation, WRH Pokhara produces 216 m$^3$ per day considering future extension plan and 100% occupancy whereas about 20.4 m$^3$/day wastewater is produced in Bhaktapur Hospital considering 100% occupancy. The required area is available in the both hospital and the potential location is also suitable for the establishment of DEWATS. Besides establishment of DEWATS, it is also recommended to improve the existing sanitary system and to design dual pipe system for effective wastewater management in the hospitals.

Project Outputs:
- Conducted Feasibility study of DEWATS in the priority hospitals sites including condition assessment of existing waste water treatment system

Major Achievements:
- Produced Report on Assessment of Sanitation Situation and Feasibility of Decentralized Wastewater Treatment System in Western Regional Hospital and Bhaktapur Hospital