INITIATIVES OF CLEAN TECHNOLOGY IN RAIL NEER PLANTS OF IRCTC

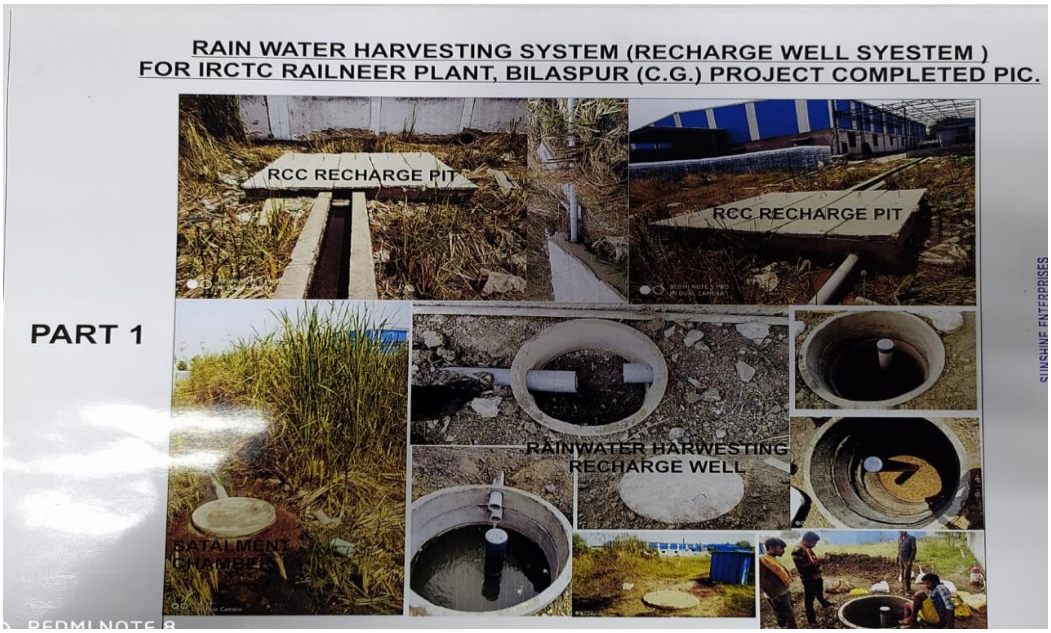
RAIL NEER PLANT, BILASPUR

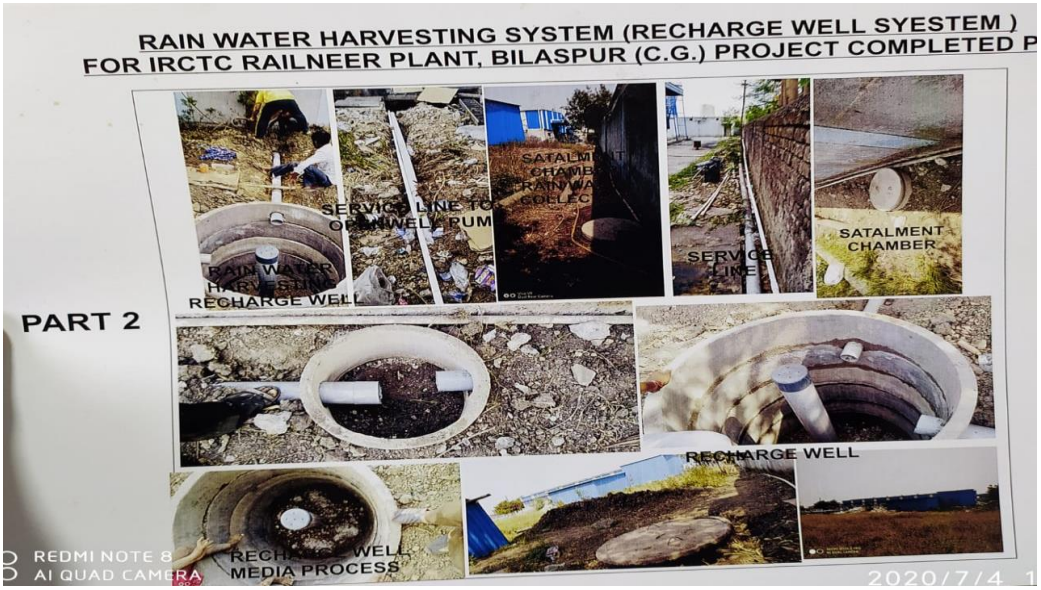
1. **BIODIGESTER**

Rail Neer has first ever adopted BIODIGESTER developed by the Defence Research and Developed Organisation (DRDO) in 2016-2017. Solid and Liquid Sewage waste enters the biodigester with inoculum reduces pathogen more than 99% and generates clean water. The generated clean water is being used for gardening application.

2. **RAIN WATER HARVESTING SYSTEM (RECHARGE WELL SYSTEM) 2018-2019**

Roof top rain water harvesting system has been been developed at Rail Neer Plant Bilaspur and the excess rain water collected has been diverted to two recharge wells developed near bore wells. This increases the ground water availability.



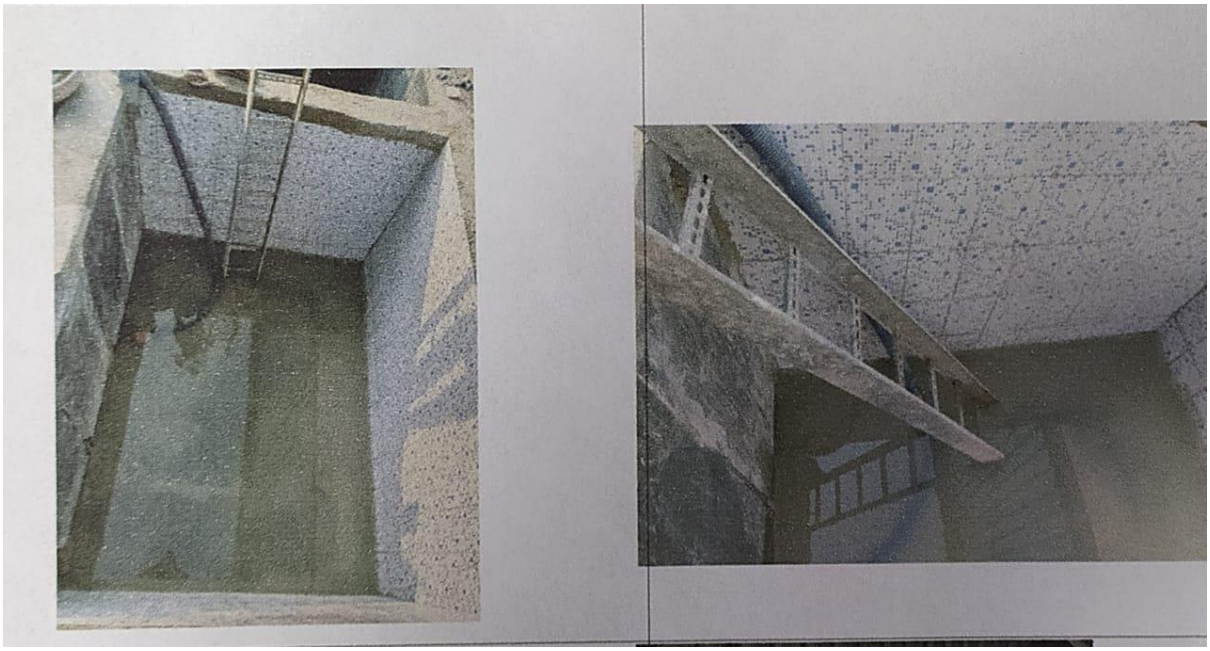


3. **DIGITAL WATER LEVEL RECORDER (PEIZOMETER) 2018-2019**

Rail Neer Plant, Bilaspur plant has been equipped with Digital Water Level Recorder which measures grou9nd water level through indigenously designed and patented signal processing algorithm on acoustic waves that can be linked to desktop and printer

4. REJECT WATER RECOVERY & RECYCLING SYSTEM (2019-2020)

Rail Neer Plant, Bilaspur has adopted reject water recovery and recycling system through which around 20KL of water per day can be recovered and reused in producing Rail Neer. 25 KL of R.O Reject water is being recovered and recycled for toilet flushing.



RAIL NEER PLANT, AMBERNATH

1. WATER CONSERVATION/RAIN WATER HARVESTING

Rail Neer Plant, Ambernath utilizes the **rainwater** accumulated every season in the dam towards the production of PDW bottles instead of exploiting the available water resources like groundwater or local water supply. Moreover, this water is treated and utilized in production of PDW. The major part of the processed wastewater is being utilized for purposes like lavatories, cleaning, gardening, etc. In this way, Plant Administration ensures 'Within an ace of Nil' status of water wastage.

2. PLASTIC RECYCLING

The major wastage of plastic that comes from the wastage of blown bottles which occurs regularly due to power issues, technical defaults, etc. The said blown bottles are flaked into tiny pieces with an advanced bottle flaking machine installed since 2018. This has not only proven financially beneficial to IRCTC due to higher rates of flaked plastic, but it majorly supports the environmental cause by **recycling of the waste plastic.**

3. GREEN ENERGY/CLEAN ENERGY

Rail Neer Plant, Ambernath has got installed an efficient solar system with a capacity of 120 Kwp in the year 2017 in order to save the limited resources like electrical energy & subsequently the cost incurred in the usage of the same. Since this installed panels are generating approx 9820 KWs of its own energy per month, Rail Neer Plant, Ambernath successfully contributes its small part towards generating **'re-usable Green/Clean Energy'** with altogether approx 1,17,800 KWs per annum.

RAIL NEER PLANT, DANAPUR, SHANKRAIL AND JAGGI

East Zone has three operational Rail Neer Plants located at Danapur, Shankrail and Jaggi Road. To address the global environment issues such as global warming and climate change, plantation drives have been conducted at these locations and more than 100 saplings have been planted covering more than 33% of the open area.

In addition, the quality and quantity of liquid effluents and gaseous emissions are within the statutory limits as mentioned in the Environment Protection Act, and the rules made there under. Adequate measures are taken for control of pollution from all sources. All solid wastes are disposed off scientifically so as not to cause any environmental pollution. All emissions/waste generated by IRCTC in the specified zone is within permissible limits given by CPCB/SPCB.

The Rail Neer Plant at Danapur is producing power to the tune of 120KW through solar panels and is recycling water through pumps @ 2500 LPH. Additionally, recharging of ground water is done through ponds adopted at Danapur and JHA JHA provided by ECR.