

WATER PURIFICATION SYSTEM COMMISSIONED at ANGELS' PLACE

We are happy to share the exciting news of the successful commissioning of the water purification system at Angels' Place. We are now self-reliant with our clean water drinking needs. Our good Lord continues to provide for the welfare of the Angels' Place family and we express our gratitude to our sponsors for making this possible!

The initial work of the supporting civil construction and plumbing started back in October 2023. And, the complete work including the RO System was projected to be in completion by December 2023. However, the interruption in transit of the RO System consignment from central India to Angels' Place via the longer Aizawl (Mizoram state) route has caused a minor delay in the final commissioning work. Starting from January 2024, we are now able to generate clean drinking water.

We have installed two RO systems: **500 Litre Per Hour and 100 Litre Per Hour**. For every litre of water purified, another litre goes off as reject. We cannot just let the reject water flow as waste. So this project aim at resource recycling since conception and the system was designed as such.



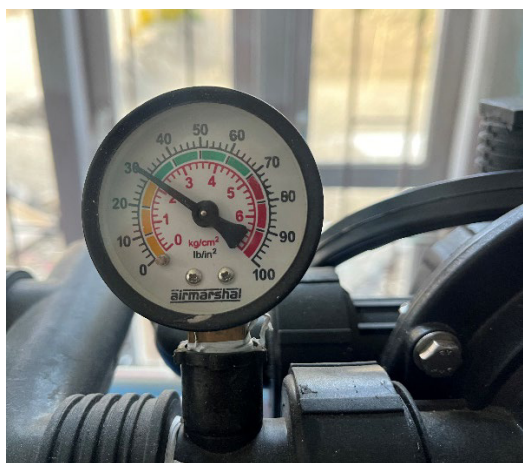
(Lunneihhoih (#274) taking the first sip of purified water)



(100 LPH RO System)



(500 LPH RO System)



WATER PURIFICATION SYSTEM COMMISSIONED at ANGELS' PLACE

Quick Dive into the System Design

Upon receiving the good news of funds have been granted for the project, cistern construction work took off immediately. The site for the cistern was carefully selected to accept rejected water from the two RO systems and also act as a water reservoir from two other sources – rainwater harvested from Lydia's Hall and spring water near the boys' building. The storage capacity of this cistern is estimated at 26,000 litres (6868 gallons).



(Siamson, one of AP alumni, performing plumbing work)

Raw Water: The RO systems received raw water from two sources – i) *a public water supply* which is stored in a cistern near our campus entrance gate and ii) *a borewell*. Raw water from these sources are not directly fed to the RO systems but it first passes through an indigenous sand filter system which is then stored in three large tanks. This acts as a first phase of purification which is also effective in eliminating the odour of the water rising from the borewell water. After this phase, water is released into the RO systems.

Purified Water: This stage is the second (and final) phase of purification. After the raw water is fed into the Reverse Osmosis (RO) system, the purified water is stored inside two special tanks with an anti-bacterial layer. These tanks are kept on a raised platform. With the help of gravity, it is ready to drink for the girls'. Whereas for the boys' consumption, it travels up to the existing drinking area with a pressure pump and is stored in two special tanks.

WATER PURIFICATION SYSTEM COMMISSIONED at ANGELS' PLACE

PHOTO SECTION



(Indigenous sand filter system sitting on top of raised platform)



Pressure pump utilize for boys' storage tanks



Distribution valve for reject water & boys' drinking area



Boys' distribution pipe seen in cream color (lower pipe) & spring water trapping pipe seen in grey color (upper pipe)



Trapping dam for diverting spring water inside the 26,000 litres cistern

WATER PURIFICATION SYSTEM COMMISSIONED at ANGELS' PLACE



Distribution pipe for boys' area



- End of Report -