



(3) Rural Water Supply

(a) Level-1 Water Supply

1) Number of deep wells and the standard of success

The level-I water supply system is planned to utilize deep wells that are located within 250 m far from dwelling houses. Two deep wells – one in Silae Area and another in Dalacutan Area - shall be constructed. The constructed borehole drilling wells should have more than 12 liters/min. of yield and the water quality of the well should clear the criteria on standard of the DOH as shown below.

Items	DOH index (minimum)
Color	5 TCU
Turbidity	5 NTU
Total Chloride	250 mg/L
Total Hardness	300 mg/L
Total Iron	1.0 mg/L
Manganese	0.5 mg/L
рН	6.5~8.5
Sulfate	250 mg/L
Total dissolved solids	500 mg/L
Fluoride	1.0 mg/L
Nitrite	3.0 mg/L
Residual Chlorine	0.5 mg/L
Fecal Coliform	0 No./100mL

2) Deep well structure

Deep well structure must guarantee to yield clean and safety groundwater. It should be considered that the main users of the well are women and children. Therefore, PVC casing and screen pipes will protect the well and the space between the casing and hole will be filled back by sieved gravel. The thickness of the gravel packing must be more than 25mm(1"). Casing diameter is to be 100mm (4") and drilling diameter should be more than 200mm (8"). To avoid the contamination through infiltration of surface water, the uppermost 10 meters of the well will be grout-sealed. The depth of deep well will be 40 meters on the average. The standard structure of deep well is shown in Figure 2-5.