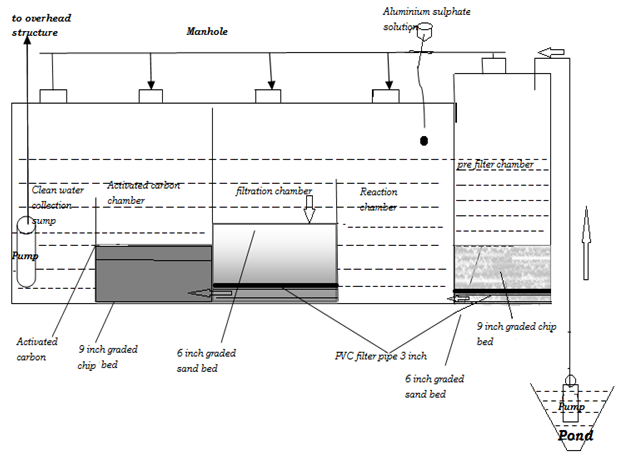
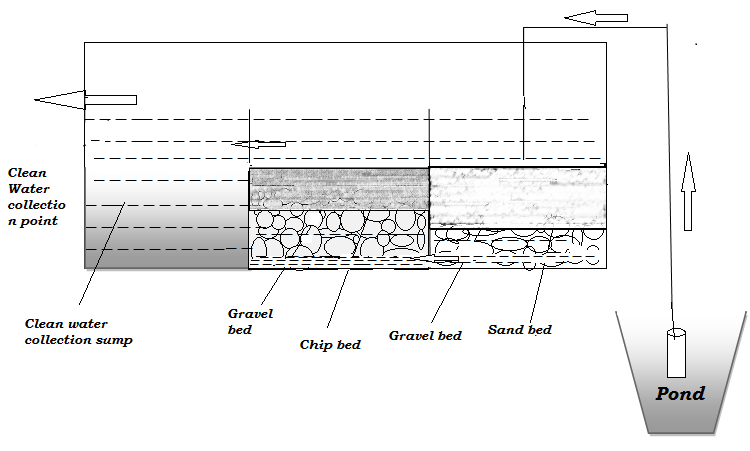


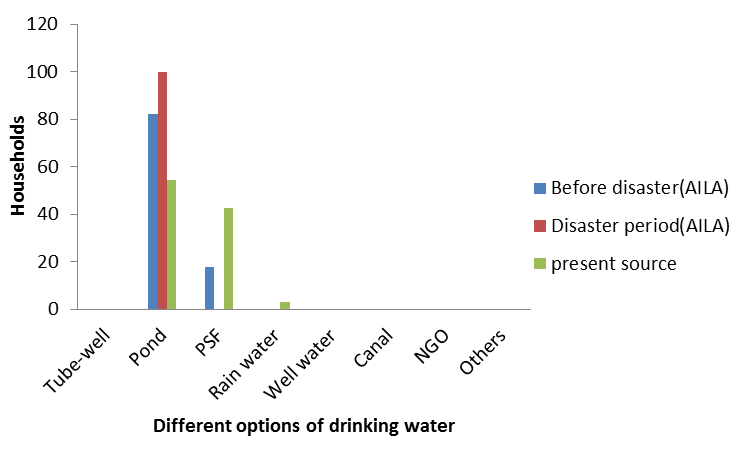
**Figure 1**. The map of Dacope Upazilla



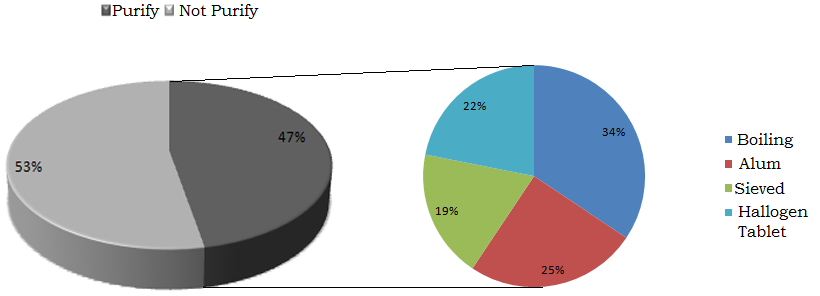
**Figure 2.** Design of PSF-A



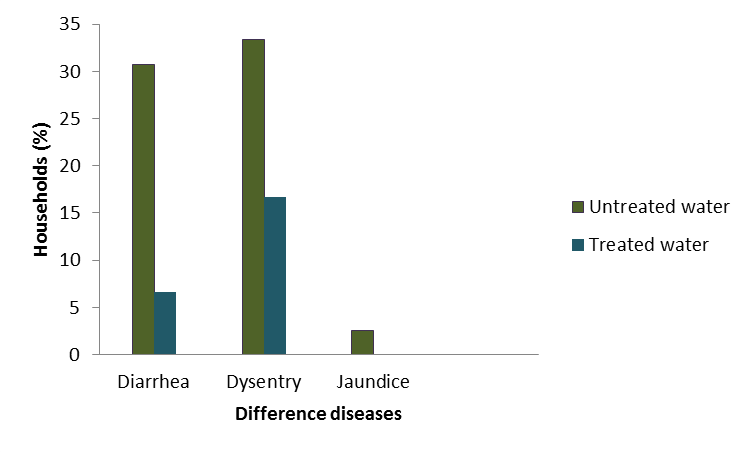
**Figure 3.** Design of PSF-B



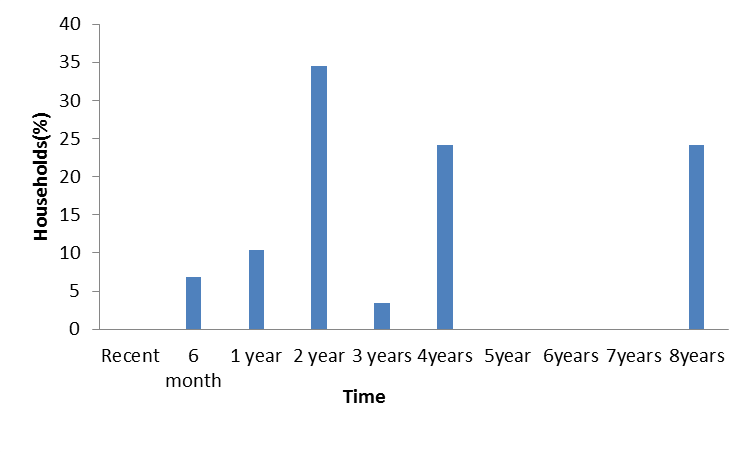
**Figure 4**. Sources of drinking water at different times



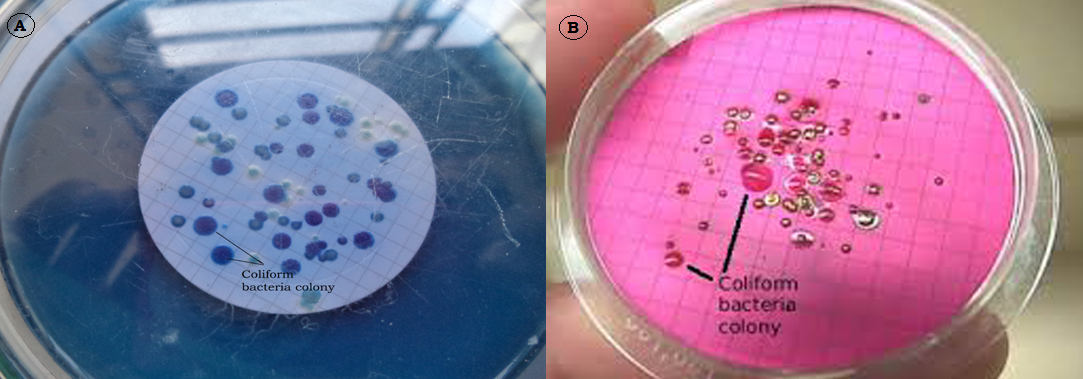
**Figure 5.** Percentage of households who use different purify technique of pond water



**Figure 6.**Percentage of different water borne diseases among treated and non-treated water users



**Figure 7.** PSF use from different times by respondent households.



**Figure 7.** Blue colonies of (A) fecal coliforms and red colonies of (B) total coliforms

**Table 1.** Different parameters with their units and measuring instruments

|  |  |  |
| --- | --- | --- |
| **Parameters** | **Units** | **Methods/Instruments** |
| PH |  | MARTINI instruments, PH 56 PHWP |
| Sulphate (SO4) | mg/l | Atomic absorption spectroscopy |
| Nitrate (NO3) | mg/l | Cadmium reduction method (HACH) |
| Phosphate (PO4) | mg/l | PhosVer Method (HACH) |
| Ammonia (NH3) | mg/l | Nessler method (HACH) |
| Total Dissolve Solids (TDS) | mg/l | HACH sension-156 multi parameter |
| Electrical Conductivity (EC) | µs/cm | HACH sension-156 multi parameter |
| Turbidity | FAU | HACH portable spectrophotometer DR/2010 |
| Faecal coliform | CFU/100ml | Filtration Technique |
| Total Coliform | CFU/100ml | Filtration Technique |

**Table 3.** Different Physicochemical analysis of PSF water (Input and Output)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| PSF | Dacope (PSF) | | Koilashgong (PSF) | | Bauja (PSF) | |
| Parameter | Input (B-pond) | Output (B-Pond) | Input (K-pond) | Output (K-Pond) | Input (C-pond) | Output (C-Pond) |
| pH | 8.71 | 8.68 | 8.09 | 8.55 | 6.64 | 6.89 |
| TDS (mg/l) | 362 | 308 | 800 | 744 | 88 | 73 |
| EC (µs/cm) | 724 | 605 | 1600 | 1574 | 136 | 145 |
| NH3 (mg/l) | 0.24 | 0.04 | 0.28 | 0.04 | 0.35 | 0.12 |
| NO3 (mg/l) | 0.9 | 0.5 | 1.3 | 1.1 | 0.8 | 0.7 |
| PO4 (mg/l) | 0.32 | 0.23 | 1.57 | 0.23 | 0.37 | 0.34 |
| Turbidity (FAU) | 67 | 15 | 38 | 20 | 32 | 19 |
| Fecal Coliform (CFU/100ml) | 176 | 38 | 122 | 19 | 64 | 9 |
| Total Coliform (CFU/100ml) | 185 | 50 | 258 | 94 | 74 | 11 |