

## CHAPTER 4 : DISCUSSION

### 4.1 Limitation of scope

Although extensive work was done in 500 villages, the scope of the study remains small compared to the scale of the problem. For example, this study touched only 2.5% of all thanas in the country. At the scale of villages, the coverage is even smaller at less than 0.6% of the total number of villages. The strength of the data set, however, lies in the fact that tubewells were tested exhaustively in the 500 villages. Given the wide spatial variation reported in earlier sample studies, it was a significant step to pilot comprehensive testing of every tubewell in each and every village of Bangladesh.

### 4.2 Biased selection

The villages were purposely selected. Therefore the data set is biased towards comparatively more affected areas. The villages were selected based on reports of existence of patients or contaminated tubewells. The areas where no survey was undertaken previously was, therefore, excluded. Hence it is possible that some seriously affected areas may have escaped selection. The reported family size (4.6) is smaller than the national figure (5.6).

### 4.3 Tubewell data

The data shows interesting trend related to operations and maintenance of tubewells. It appears that people take adequate maintenance measures to protect tubewells against malfunctioning. Only 2% of tubewells were found to be in non-working condition. The user size per tubewells of only 13 is much smaller than the national estimate of 37 (Shafiqe, 1998). The assumption we can draw from this is that there are more tubewells in the field than previously believed. It is possible that the number of tubewells in Bangladesh may, therefore, be as high as 11 million. Only 11% tubewells were identified as government installed. This shows the vibrant participation of the non-government and private sector in this business. This raises the question of whether continued investment by the government in installing low cost tubewells is necessary.

### 4.4 Arsenic contamination

About 52% tubewells were found to contain arsenic over 0.1 mg/L. This figure may be higher than the national figure as only the areas known to be highly affected were surveyed. There were 149 (30%)