

## **Study Methodology**

For the survey, interviews were carried out using a formal questionnaire in Nepali which was filled out by local enumerators trained by PARDYP. Separate questionnaires were used for the the female and male heads of household, each contained three parts:

- general information (female/male);
- household and animal water supply (female); or agricultural water supply (male); and
- perception of water and water related problems (female/male).

The decision to use separate questionnaires for men and women resulted from an RRA exercise carried out in the Yarsha Khola watershed early on in the project. This exercise and previous studies in the area showed that women were generally responsible for work concerned with household and animals, whereas men took care of most agricultural work including irrigation management.

Different methods were used in the two watersheds to obtain even spatial coverage. The Yarsha Khola watershed was divided into different zones according to altitude and aspect because the rainfall and land use in this watershed are influenced by these factors. The lower areas in the Yarsha Khola are mainly under khet (irrigated agricultural land), while upland areas are under bari (rainfed agricultural land). In addition, the water supply was expected to differ according to topographical location with moisture differences at different altitudes and aspects, and the road leading through the watershed has a big influence on the population pattern and problems related to agriculture (Brown 1998). Twelve different blocks or zones were identified and a given number of households interviewed in each of them. In the analyses blocks M1 and N1 and M2 and N2 were combined as they contained very few households. The Jhikhu Khola watershed was divided according to the kilometre grid on the 1:25,000 topographical map to give an even distribution across the watershed. In general, two households were questioned in each 1 km<sup>2</sup> grid cell. Only one household was visited in cells with few houses, and none in some cells with mainly forest. The altitudes of individual houses were measured during the survey and the households later classified into different elevation classes. The two methods are shown schematically in Figure 3.

The location of each household was marked on a 1:5000 scale aerial photograph and later linked to a GIS to allow spatial analysis and enable reassessment of the water demand and supply situation in the future.

A total of 436 people were interviewed from 218 households (218 female/218 male) in the Yarsha Khola watershed, and 356 people from 178 households (178 female/178 male) in the Jhikhu Khola watershed. The average household size was 5.8 in the Yarsha Khola and 6.9 in the Jhikhu Khola.

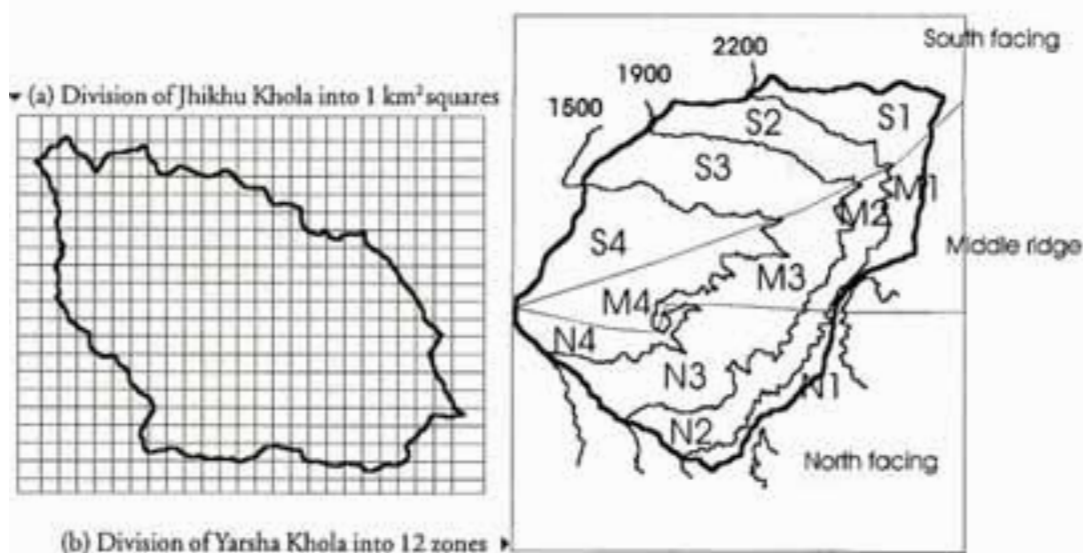


Figure 3: Division of the watersheds to ensure good spatial coverage of interviews