

Water availability study in PARDYP - Nepal watersheds

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ABSTRACT:

In the middle mountain watersheds of Nepal, where most of the people are dependent on agriculture, water resources are degrading rapidly. During the monsoon season, flooding is common, while the remaining months are dry causing scarcity of water for irrigation. Due to the insufficient quantity of water in dry season, agricultural production is limited. On the other hand large amount of water is wasted during monsoon without proper utilization. The proper management of these potentially available water resources could increase the agricultural production. Jhikhu and Yarsha Khola watersheds where an adequate database is available not much have been done on water availability and irrigation water demand so far. Therefore, this study aims to understand the water availability and irrigation demand situation in these watersheds on the basis of the local concern. In this paper, rainfall, runoff, evapotranspiration, water balance parameters and crop water requirement for major crops grown in both watersheds are analysed to identify the possible options for water management. The findings show that runoff water harvesting with storage system could be one option to full fill the crop water requirements of grown in dry period, however, care should be taken, especially for the selection of the crops and appropriate location.