Watershed Management of Darubhanga in Purulia District

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Abstract—*A watershed is a geographical unit that collects, store and releases water. This also referred to as drainage barrier or catchments because they "drain" and "catch" rain and snow melts that falls on to the land. The collected water in the watershed flows across on its way to a creek, stream wetland, pond lake or river. The boundaries of a watershed are determined by the elevation of the surroundings. The importance of watershed had already been recognized by the Ministry of Agriculture, Govt. of India, and devised a scheme during 7th plan as NWDPRA (National Watershed Development Project for Rainfed Areas). Now, this is the high time to review the performance of watershed management, how far it has played the role of ecological balance, improvement of environment and which ultimately reflected in removal of hunger and poverty in rural areas. Considering the previous discussion the present study was undertaken, with the objectives: 1. to study the land holding and their pattern of utilization 2. To study the physical and chemical properties of soil in different land situation. The study was conducted in Hura and Kashipur block of Purulia district. The study reveals that the farmers belong to land less (34.62%), marginal (28.56%) and small (25.97%) category in the study area. So far as the physical and chemical properties of soils, it is found that irrespective of land situation the sand content increased with the increase in depth of soil profiles and highest amount of sand were accumulated in Tar land situation(Mean 63.66%) and lowest amount was in Bahal land situation (34.89%). Silt content decreased with the increase in the depth of soil profiles. Highest amount of silt was found in Bahal land situation (Mean 25.66%). The silt particles are migrated from higher to lower elevation with respect to land situation. Clay content increased with the increase in depth of soil profiles. Maximum amount of clay found in bahal land situation (Mean 39.22%). Clay particles are migrated due to the effect of water from tar to bahal, the lowest elevation in watershed. pH of soil in general enhanced with the depth of soil profile. Highest pH was recorded in 30-45 cm depth of soil; Total nitrogen content in soil was more or less similar in Darubhanga watershed.*

Keywords*: watershed, physical and chemical properties of soil.*