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SOIL EROSION CONTROL MEASURES
FOR RAINFED FARMING
IN THE DRY ZONE OF SRI LANKA

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A Summary of Main Findings

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The rapid expansion of traditional rainfed upland cultivation known as 'chena' in the last three decade has lead to the severe reduction of forest cover, which had enhanced the soil erosion problem in the dry zone of Sri Lanka. Although, soil erosion has been identified as a major problem causing the decline of agricultural productivity in rainfed uplands, not much emphasis has been placed to understand the true nature of this problem or to mitigate soil erosion in this region. Main purpose of the present study was to understand the soil erosion status and to identify suitable erosion control techniques for the rainfed upland.

The study approach consisted of surveys, and field measurements including experiments for the assessment of soil erosion and the effect of controlling measures. Results were organized in the form of models to find overall effectiveness of the complete farming package or a suggested erosion control design. Field plot experiments were carried out to assess erosion levels, soil productivity changes due to erosion and effectiveness of various land, crop and mulch management practices. Surveys were conducted to collect information on reservoir sedimentation, land characteristics, socio-economic conditions in the study area. Some additional information such as soil characteristics and rainfall data were also collected.

Experiments were conducted at the following two locations in the Anuradhapura district, Yoda Ela farm and Paindikulama area in Maha Kanumulla watershed (Fig. 3.0). Soil and climatic characteristics are somewhat similar to that of Regional Agricultural Research Centre, Maha Illuppallama.