D-67: A preliminary investigation into the rate of productivity of mangrove species in Rekawa Lagoon

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The results of 5 months work of a 3 year research programme, to study the growth rates and productivity of 3 mangrove species (*Ceriops tagal, Bruguiera sexangula* and *Rhizophora mucronata* in Rekawa lagoon (5°58'N; 80°50'E) are reported.

Fresh hypocotyles just fallen from the trees were planted at a number of sites in suitable areas among the mangroves. Samples for dry matter determination

were taken from the planting material and from the plantations after 2, 3 and 5 months of growth.

Mean dry matter content of fresh hypocotyles of *C. tagal*, *R. mucronata* and *B. sexangula* were 5, 29.5 and 10g respectively. All 3 species showed a decrease in total dry matter yield (DMY) at the initial stages of growth. *R. mucronata* and *C. tagal* did not show any significant increase of total DMY even after 5 months growth. The DMY of hypocotyles of all 3 species declined with age possibly due to the transport of food reserved for growth and development of the stem, leaves and roots. The % increase in DMY of stems and leaves of *C. tagal*, *R. mucronata* and *B. sexangula* in the first 5 month period were 20, 20 and 50 respectively. *B. sexangula* showed comparatively higher growth rates in the initial stages of growth with a maximum increase of 50% DMY.