

Factors influencing adoption of dairy technologies in Coast Province, Kenya

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Abstract:

Agriculture in Kenya has continued being the back bone of the economy and this has been evidenced by the attention it has always received from the government. The recent government blue print for the Ministry of Livestock Development, the National Livestock policy like previous government policy documents notably, Strategy for Revitalizing Agriculture and Vision 2030, put a lot of emphasis on value addition of livestock products with dairy given a lot of prominence. However despite the prominence given to value addition of dairy products in Kenya the Milk production per cow by Smallholder dairy farmers who account for over 70% of the milk produced, has remained very low. Coast province on the other hand together with Nyanza and Western provinces of Kenya remained the poorest adopters of critical intensive dairy production technologies. The study therefore sought to determine the factors influencing the adoption of dairy technologies among the Mijikenda community of coastal Kenya who have variously been reported to be the poorest adopters of dairy technologies in the Coast province of Kenya. The dairy technologies under study are zero grazing as a feeding system, Napier grass establishment, silage making and hay baling which are critical in any intensive dairy production system, the inevitable trend due to increasing population pressure worldwide. Market, Labor and technical services availability among other factors were assessed and how they influenced the adoption of the technologies. A cross sectional survey was conducted in three districts of Coast province notably Kilifi, Kwale and Malindi since they were home to the main Mijikenda sub tribes, had medium dairy potential, had also implemented a dairy production program before and were implementing a project which advocated for the technologies under study. A questionnaire was administered through interview schedules to a sample of 70 farmers from across the three districts. including farmers supported by Heifer Project International and self financed dairy farmers. Findings indicated no relationship between labor, market and technical services availability and adoption of the four technologies. However, distance to source of inputs influenced adoption of zero grazing. The critical challenge to adoption of zero grazing was inadequate labor. Napier grass establishment was mainly constrained by inadequate and unreliable rainfall. Silage making was challenged by inadequate fodder for ensiling while hay baling was constrained by inadequate technical knowhow by the farmers. The average milk production in litres per cow per day across the three districts was 4 litres which was very low compared to the cows' potential of over 15 litres per day, while the average calving interval was 20 months against the recommended average of 12 months. Out of the households surveyed, 32.9% used hired labour while 35.9% of the households had the wife as the main provider of labour while men were the main providers of labor in 24.3% of the households. Children and other relatives were main providers of labour in 7.2% of households. Over 60% of the Technical staffs charged with the responsibilities of extension service delivery in the province were not competent with various silage making and hay baling techniques. The study therefore recommended for a re-training of the extension service providers so as to be able to disseminate relevant technologies to the farmers. There was also need for an evaluation of the various

technologies against the various agro ecological zones, farming systems and farmers resource base for enhanced technology adoption.