An exploration of the Shamba system as a tool for forest development in Kenya:

Case study of Kinale, Kamae and Bahati forest stations

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ABSTRACT

Shamba system has been practiced in Kenya since 1910; however, there is still controversy as to whether it promotes forest conservation. This study aimed at exploring the system as a tool for forest development. Specific objectives were to establish factors that led to success and failure of the system, examine skills of farmers involved, and determine its contribution to afforestation and farmers' welfare. Structured schedules were used, combined with personal interviews and observation. Three sites were selected for the study, i.e Kinale, Kamae and Bahati forest stations. Data were analyzed by the Statistical Package for Social Sciences (SPSS). The study revealed that the major factor that led to success of the system was presence of forest personnel that gave farmers assistance on a weekly basis, according to 55.8% of farmers. Factors that led to its failure included the method of plot acquisition as only 21% of the farmers obtained them through balloting, the set criteria. Also, initial aim of practicing the system was afforestation, according to 85.8% of farmers, but only 14.6% of the farmers practice it currently for the same reason. In addition, trees were not given time to grow to maturity as 92% farmers did not move out of their plots after four years of cultivation. Most farmers also had not been taught skills to implement the system successfully, according to 68.0% of them, Skills taught included crops to plant, trees to plant, planting and harvesting periods. There was an economic growth of 11-30% for 53% of farmers which contributed to their welfare. Also, 51% of them had plot sizes of 0.5- 1.0 ha for their food security and sale of surplus food crops, hence contributing to their welfare. This study recommends that the system is viable for forest development if legal methods of plot allocation are used and the system is managed according to its design.