Mount Kenya Reserve is vital to the livelihood of the local population who revere it. The forest reserve is of vital ecological, economic and environmental importance and is recognized as a world heritage site. The forest reserve serves as a water catchment reservoir for nearly a third of Kenya's population and feeds the country's largest River Tana, which in turn supports hydro electric plants that provide more than 50% of the country's electricity. The forest reserve is currently exposed to high degradation owing to illegal and unsustainable timber harvesting of high value indigenous trees such as *Vitex keniensis* and *Ocotea usambarensis*. Domestication of high value indigenous trees and their intensive planting on farmlands is one way of controlling degradation of Mt. Kenya forest. The study aimed at identifying factors that undermine indigenous tree planting on farmlands and the conservation mechanisms in place towards their conservation. The study was undertaken in Runyenjes Division in Embu District. A sample of 180 farmers was interviewed. It was drawn from three sub-locations randomly selected from three different purposively selected agro-ecological zones. Household members were interviewed using a farm-based interview schedule. Statistical Package for Social Sciences (SPSS) was used to analyze the data. The results obtained revealed that farmers in Embu plant trees for different reasons including timber production (67.8%), fuel wood (63.3%), poles and posts (31.1%), food (26.1%), among other uses or services. The most abundant tree species on farms was *Grevillea robusta* (100%), *Mangifera indica* (79.4%), *Eucalyptus* spp (43.3%) and *Bredellia micrantha* (70%). About 82% of farmers reported that there was value in planting indigenous trees. Constraints towards successful indigenous tree planting on farms were slow growth rate (60%), inadequate germplasm (55.7%), incompatibility with other crops (11%), low survival of planted seedlings (7.45%), and inadequate knowledge on economic returns (6.7%). The conservation measures in place included a concerted effort by various government agencies and non-government organizations in promotion of indigenous trees. It is highly recommended that a tree germplam policy will be developed and implemented. Though some farmers (60%) perceive indigenous trees as slow growers, there were others who were willing to plant them (82%) and those concerned in conservation of the trees should take this advantage and scale up the indigenous tree planting. Further research is suggested that a tree domestication process for the preferred and appropriate indigenous trees be initiated in addition to developing appropriate propagation techniques for indigenous trees including the use of biotechnology.