

The supply of germplasm in sufficient quantities and quality at the small-scale users level is a limiting factor to agroforestry development. While the past trend has been to put more emphasis on central supply systems such as national tree seed centres and government nurseries, policies are now being adopted to encourage decentralized supply of seeds, seedlings or vegetative propagules. This study was therefore carried out to investigate the mechanisms of supply and quality of the seeds supplied by the informal supply systems, the species and amounts supplied by these systems in selected parts of Kenya. The study focused on the seed supply systems in Nairobi, Central (Meru district) and Western Kenya (Vihiga district). The selected districts were representative of the regions and though nurseries were based in the districts, seed suppliers from neighbouring districts were considered. The study involved a survey of the nursery operators and seed dealers in the districts and seed tests and nursery experiments at ICRAF to compare seed quality and early seedling vigour. The seed tests at the laboratory followed the International Seed Testing Association (ISTA) rules on seed testing while the nursery experiment was on a completely randomised design to analyse seed quality and seedling vigour issues. Results revealed that informal suppliers were supplying more seeds at the farm level than formal systems with many seed dealers having joined the business after working with the formal sector. They however, mainly supplied seeds of orthodox exotic species that were easy to handle (collect, process and store). Many nursery operators considered physiological quality factors in their choice of tree seeds and thus the seed dealers' seeds were of similar physiological quality (purity and germination potential) as the seeds from the formal sector. This was also confirmed by the results of seed tests in the laboratory and seedling heights in the nursery experiment. These results were found to agree with others observed with supply of agricultural crops in different parts of the world. The genetic quality of the informally supplied seeds was found to be low as revealed by a low number of closely spaced mother trees the seeds were harvested from. Results were similar even for seed dealers who had undergone some training or had some level of experience in seed handling. The linkages between seed dealers and the formal sector represented by the Kenya Forest Seed Centre were found to be low and limiting their operations. Thus the seed dealers were not able to meet existing tree seed demand that they also had observed to be increasing. The study recommends the recognition of the informal tree seed suppliers since they contribute positively to agroforestry development by the formal sector. The formal sector should devolve the supply of the seeds of majority species to the seed dealers and only work to ensure that information on genetic quality issues is available to all actors so that seed quality is maintained. The study also recommends that the seed dealers form associations for closer linkages between themselves and the formal sector. The farmers who were found to be major recipients of the seeds from the informal suppliers should also be made more aware of quality issues so as to raise the quality premiums with the informal suppliers when procuring seeds.