

Concept Note on Quality Planting Material and Need for Certification Standard

As per estimates of FAO, it is estimated that globally, natural forest area is decreasing and planted forest area is increasing. As of 2015, reported natural forest accounts for 93 percent of total forest area. On the other hand, planted forest area has increased by over 105 million ha since 1990 and accounts for 7 percent of the world's forest area. The average annual rate of increase between 1990 and 2000 was 3.6 million ha. The rate peaked at 5.3 million ha per year for the period 2000–2010 and slowed to 3.2 million ha between 2010 and 2015, as planting decreased in East Asia, Europe, North America, South Asia and Southeast Asia. About 62% of these plantations are in Asia with China and India having the largest proportion of world's plantations.

Apart from plantations, trees are also planted in semi-natural forests, in agroforestry ventures, in public parks, and in urban areas throughout the world and year after year. These activities require a great number of planting stock and it is produced in huge quantities annually, considering that a single modern nursery can turn out several million plants each year. Trees Outside Forests (TOFs) are the main source of tree-based fuel, food, fodder, fiber, etc. The quality and quantity of benefits expected from TOFs mainly depends on choice of species, seedling quality and their field management. The diverse Indian edapho-climatic condition offers the scope for planting a variety of species. Due to the diverse edapho-climatic condition of India, the QPM requirement is vary and also everlasting. Increasing forest and tree cover (FTC) of the country to one third of its geographical area, as envisaged in the Indian National Forest Policy 1988, is essential for economic and ecological security of the country, especially the rural poor. Achieving the target of one third of forest and tree cover, however, stipulates fourfold increase in current annual tree planting mostly on lands outside recorded forest area (RFA). Tree plantation on lands outside RFA, however, has been very slow mainly due to poor returns to the growers. This is largely attributed to the low volume and poor-quality yield of tree products, mainly for the reason that the tree growers do not have easy access to quality planting material (QPM) due to both paucity of QPM production facilities in the rural areas of the country and low awareness about gains of using QPM.

India has only 23.81% forest cover, which is far below the recommended 33% of our National Forest Policy, 1988. Increasing the area under natural forest has limited scope, while Trees Outside Forests (TOFs) offer tremendous opportunity for productivity augmentation and sustainability. The special plantation drives and environmental clearance compulsion by greening activity also increased the demand of seedlings. The quality and quantity of benefits expected from TOFs mainly depend on choice of species, seedling quality and their field management. Inadequate availability of quality planting material is one of the important determining factors in development of a sound horticulture, pulp and paper industry. The annual requirement of forest tree propagules viz., Eucalyptus, Poplar,

other MPTs is calculated as 10 million each while the requirement of Casuarina is 8 million. The availability of best quality seedlings at lower costs offers ample scope for large scale planting.

Quality Planting Material (QPM) is an essential input in agriculture and forestry for maximising revenues, improving adaptability to adverse environmental conditions and meeting quality raw material requirements of markets. The National Forest Policy of 1988 as well as Draft National Forest Policy of 2018 have recognised the inadequate availability of QPM for undertaking afforestation measures, agroforestry and plantations. At present, SFDs supply saplings grown in forest nurseries for various plantation programs - largely raised from seeds. It is estimated that only about 10% of planting material is of high quality (National Agroforestry Policy, 2014). Need of quality seeds from superior elite trees and support systems for verification of seed quality, vigour, pathology, physiology etc. At present, only paper industries having their in-house R&D support provide QPM of selected spp. e.g. eucalyptus and poplar to associated farmers.

Meanwhile the species or variety or genotypes suitable for cultivation in one region may or may not be remunerative in another region. Hence, development of location specific quality seedlings has the potential to increase the agriculture and forest productivity. The availability of quality seedlings at lower cost offers ample scope for large scale planting. In this juncture, putting efforts on quality seedling production offers scope for sustainable forestry and agriculture. Recognizing these constraints, MoEFCC has been implementing Grant in Aid Scheme providing assistance to Voluntary agencies for tree planting by incorporating the additional components of QPM production facilities and creation of mass awareness about QPM. The restructured Scheme named 'Grants in aid for Greening India' focuses on three aspects of the tree planting namely raising mass awareness about QPM and tree planting, enhancing the capacity for QPM production, tree planting with people's participation. QPM should originate from properly established seed orchards, clonal orchards, Plus trees, hi-tech nurseries, etc. The mother stock used for production of QPM in hi-tech and satellite nurseries should be of diverse genetic origin. State Forest Department has also been made responsible for certification of QPM. It is estimated that only about 10% of planting material is of high quality (Agroforestry policy, 2014).

Accessibility of quality planting material (QPM) for small/marginal holdings is new challenge on integration of value chains, liberalization and globalization effects, market volatility and other risks and vulnerability etc. (Thapa and Gaiha,2011). This improvement can only be realized, if subsistence farmers have access to quality planting materials. It needs capacity building of motivated farmers, who are ready to undertake production of planting materials with quality control as a means of generating income for their livelihood. By enhancing farmers' capacities to produce planting materials in a sufficient quantity based on local demands, growing need of QPM can be met in time with competitive price locally.

There is significant variation in productivity of plantations of agro-forestry species and in forests. Dearth of Quality Planting Materials (QPM) is one of the major constraints in Agro-

forestry. Recently, QPM has been one of the main agenda of discussion in *MoEFCC's Expert Committee on TOF* deliberations. NCCF, which participated in the discussion, has recommended a set of measures required for improving QPM scenario in India for undertaking large scale TOF enhancement initiatives. Developing credible certification scheme for produce & standards for nursery management encompass guidelines for certification process from seed stage to QPM as well as addressing issues such as legality, land tenure, community rights, environmental safeguards, management plan etc. and chain of custody such as tracking, traceability, batch accounting and logo usage etc. National Horticulture Board has already developed a protocol for accreditation of nurseries set up for supply of QPM and the similar protocol may be adopted for third party certification of Nurseries. Legal provisions already exist in our country for certified seeds/plant materials for Agri-crops, but such practices are almost non-existent so far for tree crops. Developing National QPM Registry is another NCCF idea to provide a secure platform for issuing, tracking and retrieving information of the certified entities, certified stock & QPM availability.

Further, distribution of quality planting material through certified nurseries at subsidized price /other management practices for promotion of trees outside forests on government lands should be promoted by State government. QPM registry will assist producers/buyers in measuring, reporting and verifying the QPM in their operations, also consults with government (state department such Agriculture & forest department/corporation). Only certified operations can sell, label or represent products as certified QPM, unless exempt or excluded from certification. Illustration on information for certified QPM on national QPM registry. The recently notified Compensatory Afforestation Fund Rules of 2018 lay special emphasis on enhancing availability of QPM in the country and allows use of CAF for raising nursery for the production of the same.

In view of the above facts and imperatives, NCCF proposes to develop the certification standard for QPM production initiatives and establishing necessary infrastructure. A certified QPM regime will essential for healthy and sustainable growth of the sector and ensuring plenty of quality planting material that meets global standards.

We seek your valuable comments, feedback and suggestions to take this idea forward and elicit support of relevant stakeholders.

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