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Certification of Nurseries and Quality Planting Material to Accelerate Agroforestry in India



NCCF

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Outline

Introduction

Objectives of the study

Scope of work

Key findings and Results

Recommendations

References



INTRODUCTION (1/2)

- Dearth of Quality Planting Materials is one of the major constraints in forestry and in Agro forestry
- Compared to the provisions of the legal requirement of seed certification in agri-crops, there is no matching regulation in the forestry sector for the mandatory use of certified seeds or other FRM (*Forest Reproductive Materials*) in general to ensure better planting stock with high productivity.
- Apart from plantations on forest lands, a large number of saplings are planted in India every year on the public, private and community lands etc., Out of the large numbers of plants, it is estimated that a very small percentage (10%) of them can be categorized as “Quality Plant Material” (QPM).



INTRODUCTION (2/2)

- Achieving improved productivity of plantations, identification of suitable species matching with diverse end uses suitable for different agro ecological zones is critical.
- It is always easier to focus our attentions at a single place like nursery where the processing of various inputs is done for supplying quality outputs for the hostile field conditions. Hence, by Certification of Nurseries, an attempt is made for sustained supply of Quality Plant Materials.



OBJECTIVES OF THE STUDY (1/2)

- Developing a strategy for large-scale production and supply of genetically superior and/or certified quality planting material through collaboration between private sector (tree growers, nursery growers, forest based industries) and public sector.
- Suggesting a mechanism for certification of nurseries and planting materials based on certain criteria and associated indicators.
- Establishment of hi-tech nurseries by Forest Departments at least one in each district for distribution and demonstration, accessibility of QPM in rural areas, and development of high yielding new clones, are some of the major areas that need attention and improvement for the success of the agroforestry
- Efforts are needed for institutionalizing production and use of certified QPM

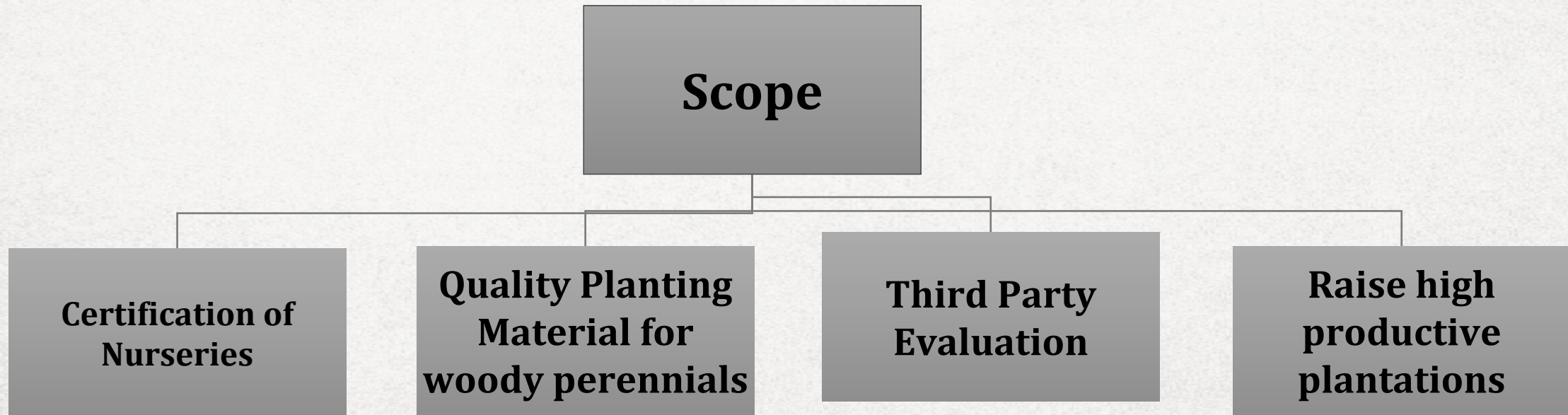


OBJECTIVES OF THE STUDY(2/2)

- To achieve any tangible progress in the areas identified above, easy access to, and unhindered availability of, Quality Planting Material (QPM) of agroforestry species is a pre-requisite.
- To support this, nationally accepted guidelines are urgently needed to ensure production and supply of QPM.
- Ensuring availability of certified QPM for increasing productivity of cropping systems



SCOPE OF WORK



Scope of Work

- An attempt is made for developing a framework of certification of nurseries where woody perennials are raised based on certain standards
- Can be evaluated by a third party from purely technical angles by assessment of plant growth at critical control points of sapling growth by addressing to various risk factors.
- Proper assessment of these standards will ensure the potential of the nursery to produce Quality Plant Material on sustainable basis.
- It will be a win-win situation for the Nursery owners and tree growers, as its produce can be sold on premium price in comparison to non-certified nurseries and certainly consumers (planters/farmers) will be benefitted by better return by planting QPM in their fields.



Key findings and results (1/3)

QPM needs to qualify certain standards but to be precise, broadly these plants have at least these three parameters as follows:

- (i) Propagation materials collected from mother trees which are phenotypically and genotypically superior (INPUT)
- (ii) Saplings grown from above materials are morphologically and physiologically strong enough or commonly called as a 'sturdy plant', so that, (NURSERY RAISING)
- (iii) When these are used for out-planting in the field, the plants have better growth and high survival rate. (OUTPUT)



Key findings and results (2/3)

A framework of nursery certification developed on these following themes:

Theme 1: Establishment of Nursery & Creation of various infrastructures

Theme 2: Planning and Management of the Nursery

Theme 3: Procurement of different Forest Reproductive Materials (FRM) and establish Chain-of-Custody with parent materials

Theme 4: Developing a robust feedback mechanisms for corrective actions

Theme 5: Developing a protocol for assessment of Sapling Quality



Key findings and results (3/3)

- Under each theme, certain well thought-out principles are considered and these principles are based on certain criteria which can be evaluated by third party based on actual observation in the field, measurable parameters and inspection of various records and documents maintained at the site as per various compliances of local, national and international acts, conventions and rules.
- Ensuring the supply of the only graded saplings to the Planting Sites after proper assessment of their morphological and physiological qualities and continue to monitor the survival and growth parameters of the planted saplings in the harsh conditions of the fields.
- On the basis of our findings we are planning to conduct testing in few nurseries before finalizing the draft
- After the successful field trials we will make it applicable



Recommendations (1/2)

- The certified Nursery and QPM regime is essential for healthy and sustainable growth of the forestry and wood based industrial sector.
- It will ensure plenty of quality planting material that meets the global standards for afforestation, reforestation and industrial plantation programs.
- Distribution of quality planting material through certified nurseries at subsidized price which are practicing management practices of global standards will help in promotion of trees outside forests as well as on government lands.



Recommendations (2/2)

- Developing National QPM Registry is another idea to provide a secure platform for issuing, tracking and retrieving information of the certified entities, certified stock and QPM availability.
- The QPM registry will assist producers/buyers in measuring, reporting and verifying the QPM in their operations. But it needs elaborate process to be in place with the lead role to be played by the nodal Ministry of Environment, Forests & Climate Change, Government of India.



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