

## **A Value chain approach for improvement and utilization of Casuarinas in Tamil Nadu**

**K.T. Parthiban\*, S. Umesh Kanna, S. Vennila, P. Kumar, V. Saravanan  
V. Subbulakshmi and P. Durairasu**

*Forest College and Research Institute  
Mettupalayam 641 301, Tamil Nadu, India*

*\*Email : ktparthi2001@gmail.com*

### **Abstract**

The species Casuarina is preferred predominantly by farmers and wood based industries due to its fast growth, multiple utility, nitrogen fixing ability and amenability towards all types of agro and farm forestry systems. The species though an exotic has been improved both genetically and silviculturally but the availability of quality seeds and seedlings till the recent past was dismally modest. This coupled with unorganized supply chain with uncertain price fluctuation have created widening of gap between the producer and consumer. Against this back drop, the Tamil Nadu Agricultural University has conceived and designed a value chain approach for the improvement and utilization of casuarina in association with various stake holders. The value chain approach was attempted to auger the productivity through technological intervention by developing high yielding and short rotation clones like TNAU Casuarina MTP 1 and TNAU Casuarina MTP 2 which have the potential of yielding over 150 tonnes per ha in 36 months which benefitted both farmers and industries. Development of decentralized clonal production center has ensured availability of quality planting material of high yielding varieties at subsidized price. The research team also intervened through organizational value chain model by conceived a Quad Partite Value Chain Model incorporating research institutes, farmers, wood based industries and financial institutions as stake holders.

The intervention through price fixation and forecasting have ensured the periodic market prices to the farmers and helped them early and high returns. The high yielding clones have yielded an income of over 7.00 lakh rupees per ha in three years. The incorporation of agricultural crops like pulses, vegetables and hybrid tree model with other fast growing tree species have also yielded early returns which attracted over 25000 farmers practising Casuarina based industrial wood farming in about 36000 ha distributed in 29 districts of Tamil Nadu. The value addition of Casuarina needle into briquetting technology have offered additional revenue to the growers. This paper incorporated the interventions made through technology, organizational and marketing and thereby assures a complete value chain model for further promotion of Casuarina based industrial wood farming.