



Report on the Nation-wide Tree Planting Campaign on the eve of ICAR Foundation Day-2021



ICAR-Central Agroforestry Research Institute

Near Pahuj Dam, Gwalior Road, Jhansi 284003, Uttar Pradesh, India



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Key

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Acknowledgements

The ICAR-Central Agroforestry Research Institute, Jhansi, Uttar Pradesh thank the citizens of the country, particularly from the National Agricultural Research, Education and Extension System (NARES) and the Sub-Mission on Agroforestry Units located in different states for their untiring efforts and contribution to the cause of planting 10 lakh tree seedlings/saplings. Thanks are due to farmers and the rural youth who did contribute to the planting exercise in different parts of the country.



Background

The National Agroforestry Policy unveiled by the Government of India in 2014 is a boon towards the national mandate of having 33% forest cover in the country by promoting planting of trees on farm bunds and boundaries including the wastelands, all collectively called as Trees Outside Forests. The Ministry of Agriculture and Farmers Welfare, Govt. of India is the nodal Ministry for implementation of the policy through a sub-Mission on Agroforestry under the National Mission on Sustainable Agriculture.

To boost the promotion of tree-based farming and disseminate the knowledge on the subject, the ICAR-Central Agroforestry Research Institute, Jhansi and All India Coordinated Research project on Agroforestry organized a nationwide campaign on plantation and awareness on the eve of ICAR's Foundation Day, the 16th July 2021. The event invariably became part of our Celebration of India@75 – Azadi Ka Amrut Mahotsav. It aimed at creating mass awareness on our Hon'ble Prime Minister's call for 'Har Med Par Ped' emphasizing the importance of boundary/bund plantation on farmlands to provide additional returns to the farmers through diversification of land-use vis-à-vis enhancement of tree cover in the country for environmental security.

About National Agroforestry Policy

India adopted the National Agroforestry Policy (NAP) 2014, a first of its kind to mainstream agroforestry practices. The policy was a cumulative result of many policies and schemes which emphasized agroforestry like National Forest Policy (1988), Planning Commission Task Force on Greening India (2001), National Bamboo Mission (2002), National Policy on Farmers (2007) and National Mission for a Green India (2010).

The policy aims to,

- Encourage and expand tree plantation in complementarity and integrated manner with crops and livestock to improve productivity, employment, income, and livelihoods of rural households, especially the small holder farmers.
- Protect and stabilize ecosystems and promote resilient cropping and farming systems to minimize the risk during extreme climatic events.
- Meet the raw material requirements of wood-based industries and reduce import of wood and wood products to save foreign exchange.
- Supplement the availability of agroforestry products, such as the fuelwood, fodder, non-timber forest produces and small timber of the rural and tribal populations, thereby reducing the pressure on existing forests.
- Complement achieving the target of increasing forest/tree cover to promote ecological stability, especially in the vulnerable regions.





“Har Med Par Ped”

- Narendra Modi



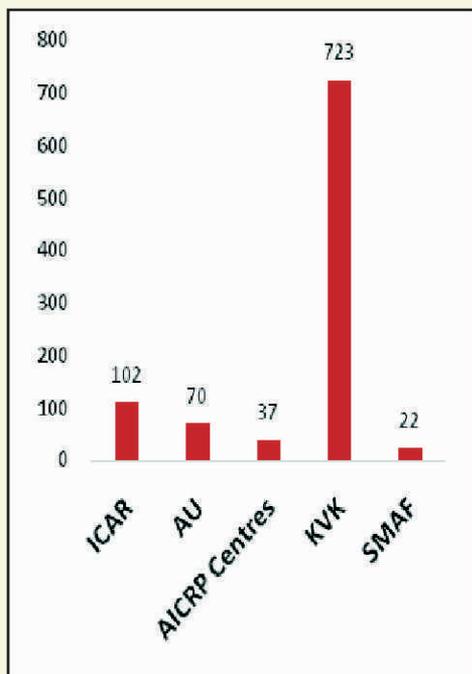


Largest ever plantation drive by a research organization



TARGET: Planting 10 lakhs seedlings

ICAR being a pro-active R&D organization led this mission of planting trees for the national cause by involving the entire National Agricultural Research System that includes ICAR Research Institutes, Agricultural Universities and KVKs, and the State Units of the sub-Mission on Agroforestry (SMAF).



Participating organizations

Tree Plantation Campaign

Date: 16 July 2021; Time: 9.30 AM IST

Chief Guest
Dr. Trilochan Mohapatra
Secretary, DARE & Director General, ICAR

Theme: Har Med Par Ped

Webex Meeting Link
<https://isaf.webex.com/isaf/j.php?MTID=mb469546e7066110b05005de1fb84a1e7>
Meeting ID: 184 310 5148; Meeting password: 12345

Organizing Team

Dr. S.K. Chaudhari
DDG (NRM)
ICAR, New Delhi

Dr. S. Bhaskar
ADG (AARCC)
ICAR, New Delhi

Dr. A. Arunachalam
Director, ICAR-CAFR
Jhansi, Uttar Pradesh

Organized by:

in association with

Department of Agriculture,
Cooperation & Farmers
Welfare

Follow COVID Protocols, Stay Safe

About ICAR

ICAR - the governing body of Agricultural Research and Education in India (<https://icar.org.in/>), working on the national cause specially on food security. Today's agriculture is inseparable from environmental and human well-being. ICAR has been working on developing green technologies to recover degraded lands and supplement with tree plantation activities. Since its establishment in 1929, ICAR was the centre of the agricultural revolution in India – green revolution, white revolution, blue revolution, etc. As of food security is concerned, the country is surplus with 310.74 metric tons. However, in the ecological crisis of the 21st century, the ICAR has resolved to focus on productivity on a holistic level i.e. agroecology of the food production system. In this context, incorporation of the trees and other woody perennials in farm bund and boundaries will benefit in multi-dimensions and the council has aligned itself it with the call of the Honorable Prime Minister 'Har Med Par Ped' – to encourage farming community to grow trees on bunds and boundaries. To achieve this agenda, the entire ICAR with its 100 plus institutes and 723 KVK's is working on it and this national wide tree planting campaign will ensure in achieving the agenda.

CAFRI led this Movement

Often, the scientists quote phrases like 'Nature-based climate solutions', 'Ecosystems based approaches' or 'Natural climate solutions' to refer to any mitigation efforts centered around production, protection and management of various ecosystems facing the impediments of climate change. Tree planting become the most eligible and eco-friendly nature-based solution to restore and manage degraded ecologies, particularly in the terrestrial environment. To this endeavour, agroforestry comes as an ecological model system for ensuring food, nutrition, and environmental securities. Thus, it is widely believed that massive tree-planting programme can mitigate the ecological crisis in the 21st century.

Tree planting has now become a global exercise for regulating the hydrological processes balancing the ecosystem stability *per se*. A study from Yale University has quantified that there are 3.04 trillion trees throughout the globe with an average tree to person ratio of 61:1. A global-scale assessment has been completed by Bastin et al. (2019)^{*} claims that 0.9 million hectares are available for reforestation activity across different continents excluding urban settlements. India has 55.76 m ha of wastelands and degraded lands including that of the protected area network of nature reserves. Notwithstanding, the agricultural lands should also be roped in, for enabling this tree cover increase in the country, as it strives to have 33% forest cover. So, tree planting becomes the only ecological route to achieve that, where every citizen has a role to play. Dr. APJ Abdul Kalam had earlier called on every citizen to plant a tree and take care of it during his/her lifetime.

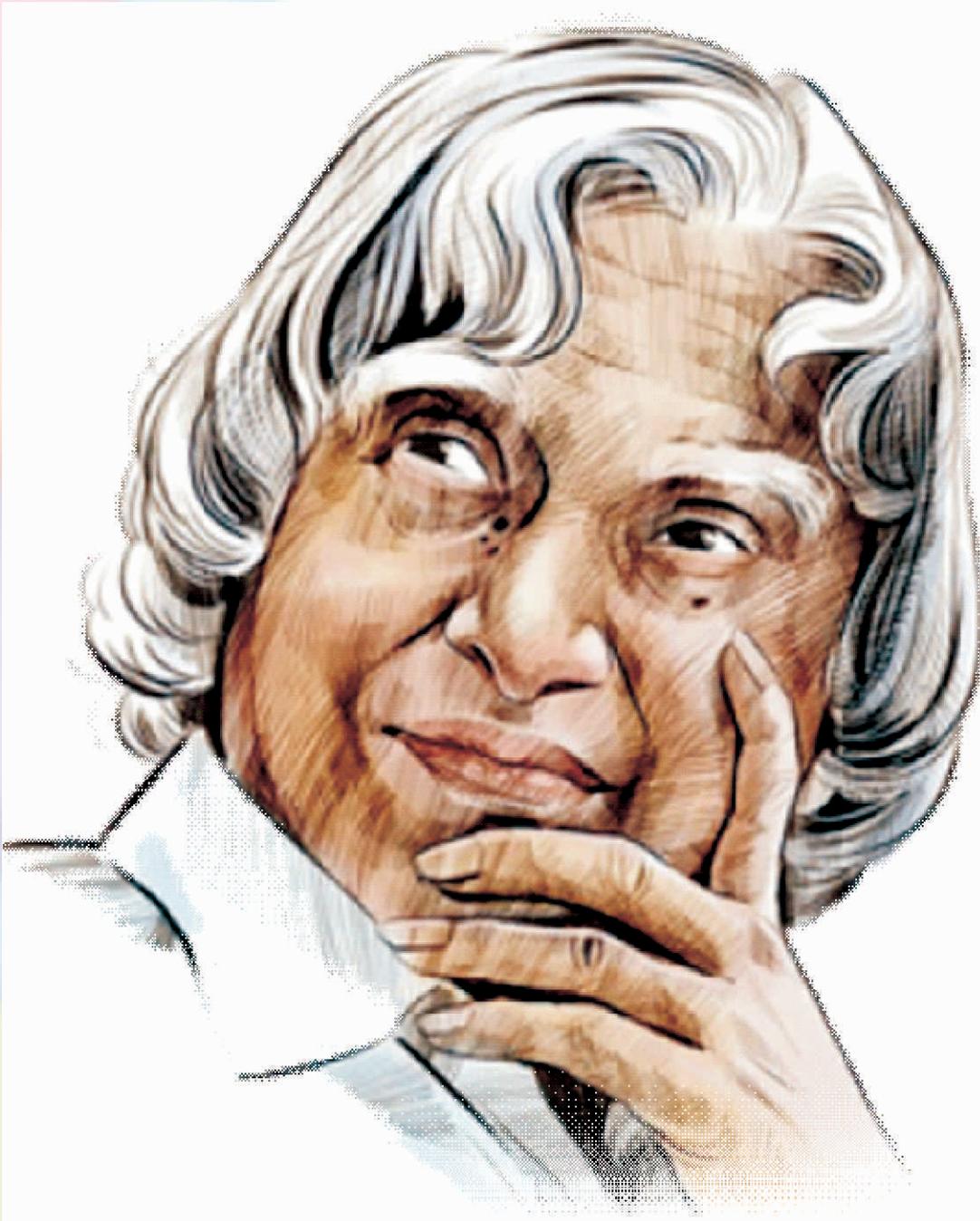
About CAFRI

ICAR-Central Agroforestry Research Institute (ICAR-CAFRI), formerly the National Research Centre for Agroforestry, is a multidisciplinary premier research institute of the Indian Council of Agricultural Research (ICAR) with a major focus on integrating trees, crops, and livestock on the same farmland. CAFRI is the only dedicated research institute of the country working on key research areas of agroforestry with 31 scientists, 16 technical, 12 administrative and 8 skilled supporting staff as its sanctioned cadre strength. CAFRI has developed robust agroforestry models and package of practices for different agro-climatic conditions covering small and marginal farmers and provides technical backstopping to the states and stakeholders.

Agroforestry is a dynamic, ecologically sound natural resource management system that through the integration of woody perennials on farms and in agricultural landscapes, diversifies and sustains production for increased social, economic, and environmental benefits for land users at all levels. Agroforestry is even stated as the best strategy as well as a tool for managing the natural resources sustainably. Modern-day intensive agricultural practices led to the evasion of trees from the farmlands. And today, we take concerted effort to bring the trees back on the farmlands to provision resilience to the system while also improving the livelihoods of the farming community.

^{*}Bastin, J.F. et al. 2019. The global tree restoration potential. *Science* 80 (6448): 76–79. doi:10.1126/science.aax0848.





“Everyone should plant and grow atleast one tree if he wants to be a human being.”

“Trees are my guru. They continue to give unconditionally even when you pelt them with stones to take their fruit, and even if you cut them down. Trees give life. Let's reciprocate that. Plant more trees.”

- APJ Abdul Kalam



Tree Plantation Campaign

16th July, 2021

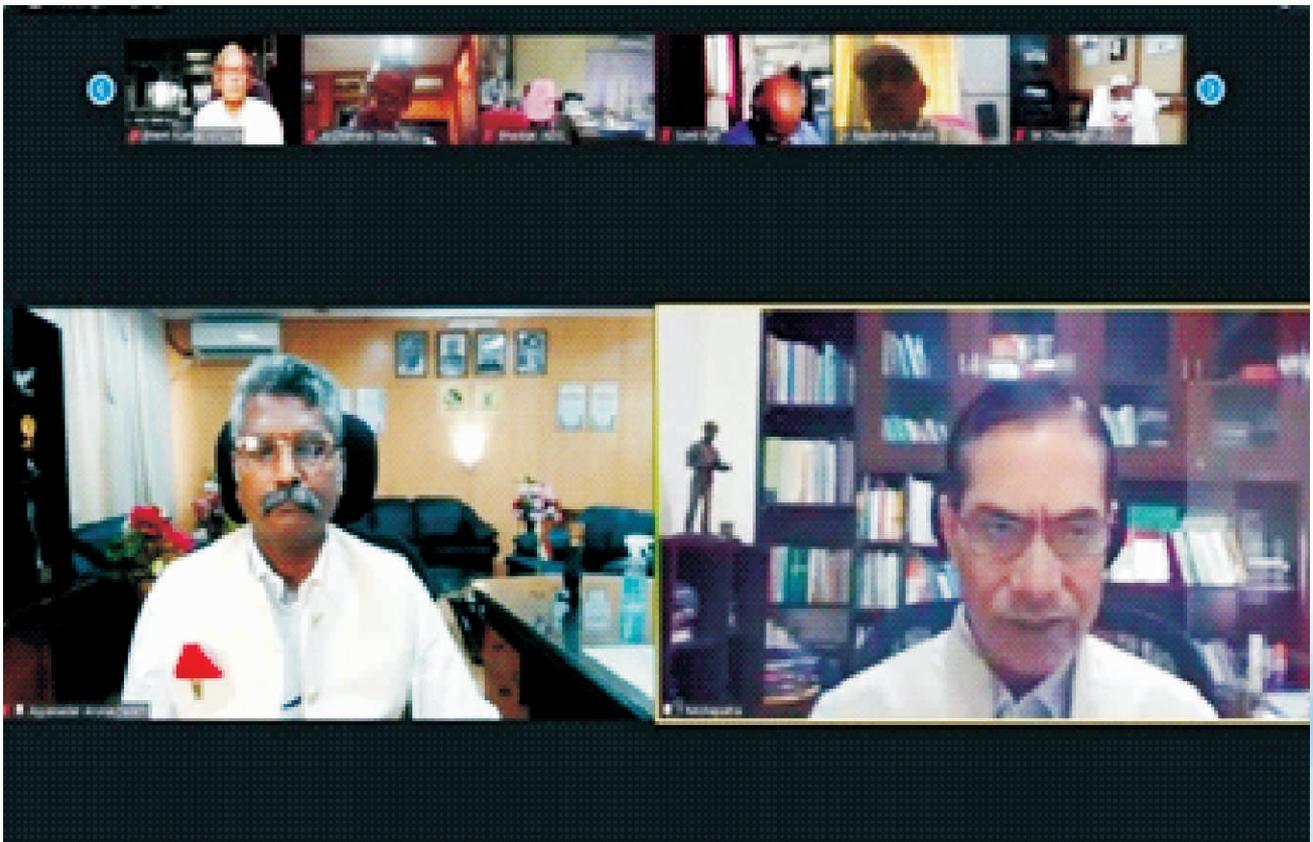


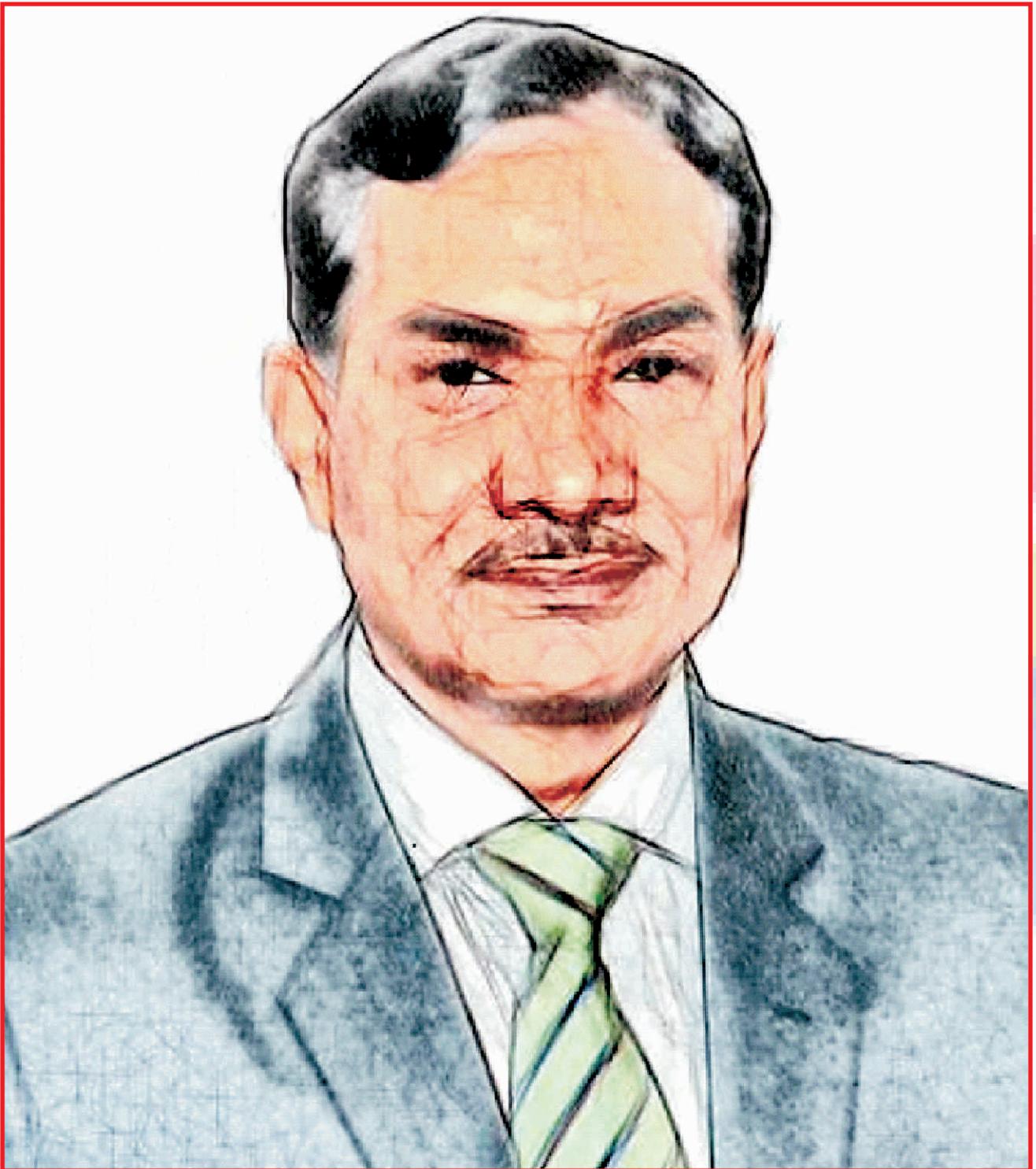
Target

Planting 10 lakhs tree seedlings/saplings

ICAR-CAFRI initiated Nationwide Tree Plantation Campaign under the theme “Har Med Par Ped” on the 16th July, 2021 to celebrate the of 93rd Foundation Day of the Indian Council of Agricultural Research (ICAR).

Dr. Trilochan Mohapatra, Secretary, DARE & Director General, ICAR inaugurated the event by virtually planting a tree in CAFRI premises and he opined that Tree Plantation is one of the noble activities by mankind for making the planet greener, livelier, and healthier.





It is imperative to select the right species to grow on the bunds and boundaries of agricultural land, not only for its productivity attributes but also for their environmental services

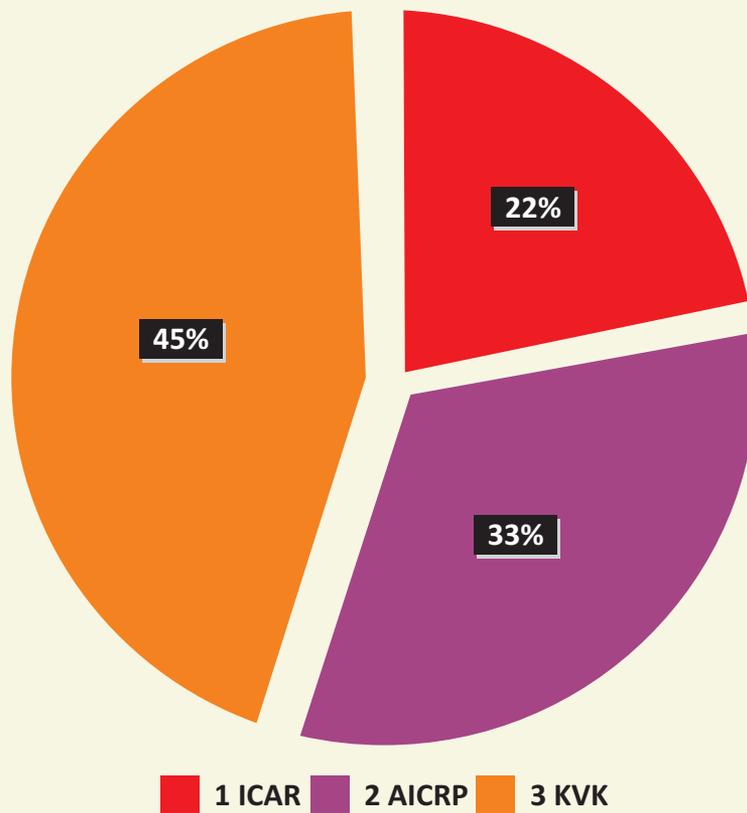
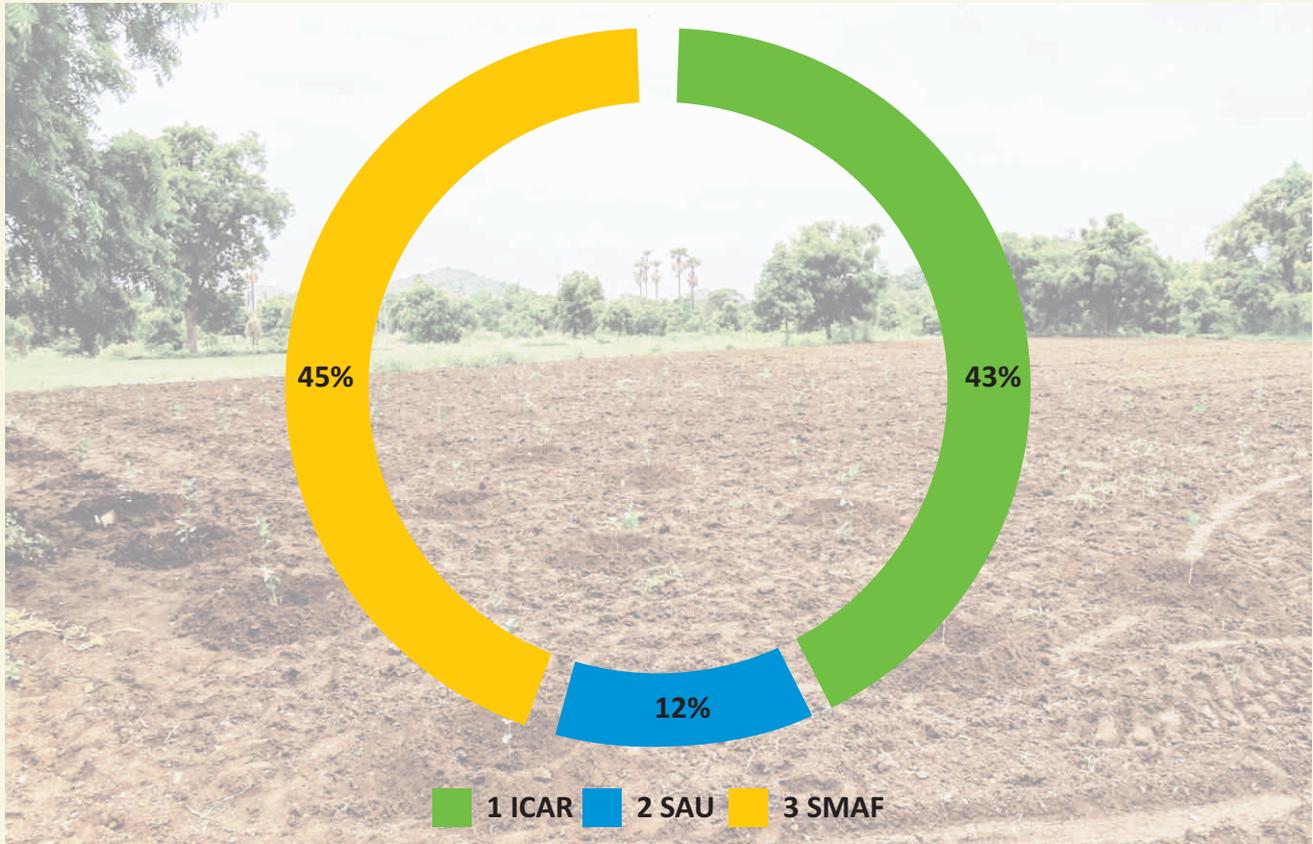
- Trilochan Mohapatra

Dr. S.K. Chaudhari, Deputy Director General (NRM), ICAR appreciated CAFRI's efforts to initiate and coordinate this largest-ever tree plantation campaign by a research organization in the country and appealed everyone to actively participate in the tree plantation drive. All the eight DDGs of ICAR, New Delhi participated in the event and planted a virtual tree sapling in the CAFRI premises. This campaign was observed as an important event in the light of India@75 celebrations of *Azadi Ka Amrut Mahotsav*. Over 900 participants joined the virtual platform on the occasion to appreciate the mission and vision of the tree plantation campaign by involving the representatives of ICAR institutes, sub-mission on Agroforestry, National Bamboo Mission, Central and State Agricultural Universities, Forest Departments and KVKs. Dr. A. Arunachalam, Director, CAFRI underlined that around 10 lakhs tree seedlings/saplings will be planted across various agro-climatic zones of the country that will contribute to the enhancement of trees outside forests. The Director reiterated the wisdom of Dr. APJ Abdul Kalam appealing to all the citizens to plant at least one tree in their life and maintain it for sustaining the future generation.



National Level Tree Plantation Campaign was eventually taken up by the NARES and State Agroforestry Mission Units in their respective locations/states

Tree Plantation Campaign Gave Results



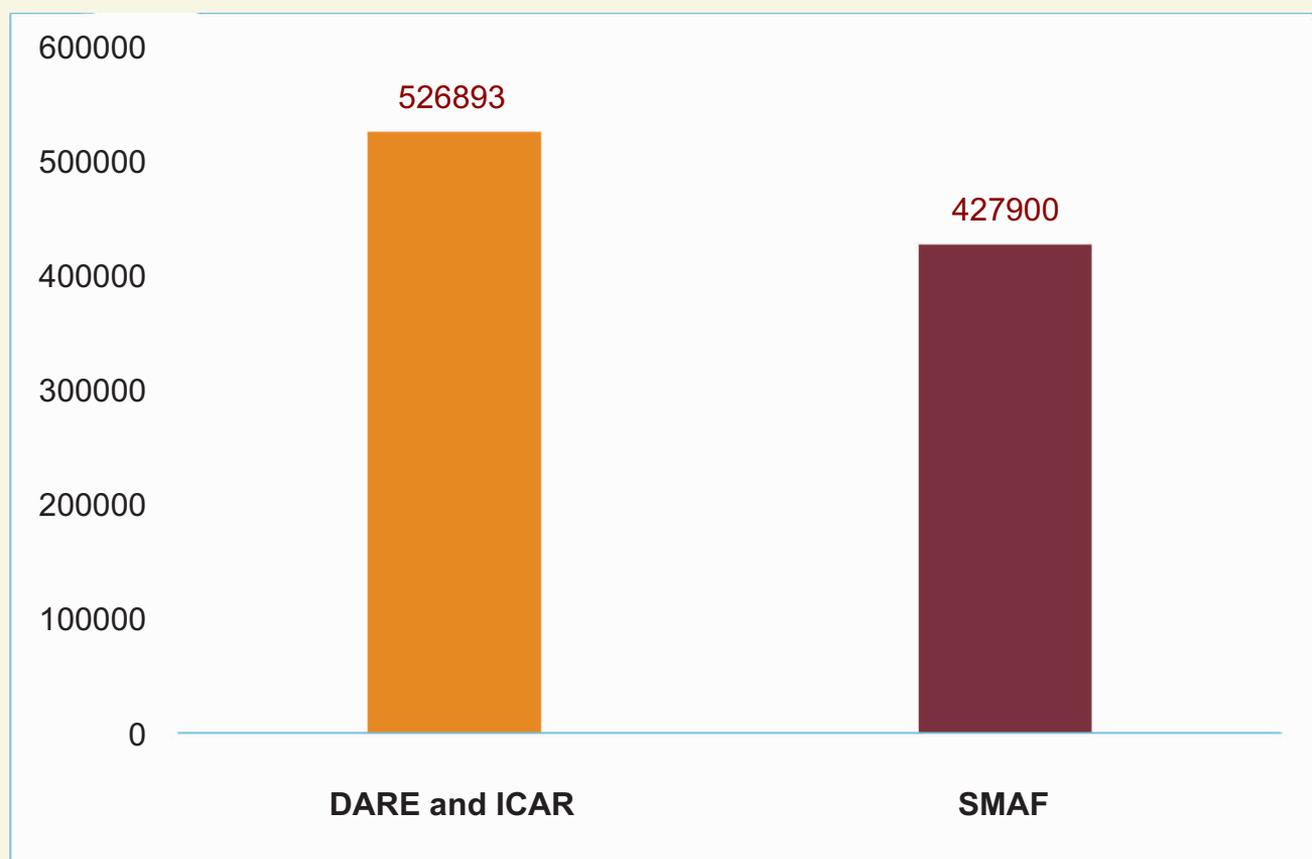
Contribution of NARES and SMAF Units



Summary

S.No.	Institutions	No of seedlings/saplings planted
1.	AICRP on Agroforestry	129323
2.	ICAR-Central Agroforestry Research Institute	20758
3.	Other ICAR Institutes	85836
4.	Agricultural Universities (AU)	113650
5.	Krishi Vigyan Kendra (KVKs)	177326
6.	Sub-Mission on Agroforestry (SMAF)	427900
	TOTAL	954793

Overall, active participation from the NARES and SMAF units aided in making this national tree planting campaign a success. We were able to achieve a close figure of about 9.50 lakhs to the fixed target of 10 lakhs seedlings.





भाऊ अग्र
ICAR



केकवाडनस
CAFRI



AgriSearch with a human touch

केन्द्रीय कृषिवानिकी अनुसंधान संस्थान

“परती भूमि की बहली, कृषिवानिकी से हो हरियाली”

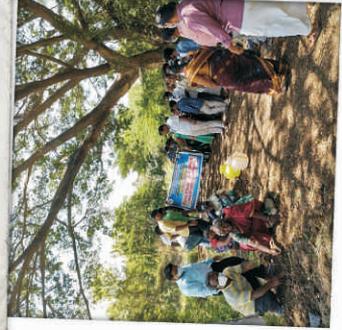


75 भारत अमृत महोत्सव
हर राह पर बड़ते कदम

Swachh Bharat Abhiyan



स्वच्छ भारत
एक कदम स्वच्छता की ओर





भाकृअनुष
ICAR



केकृवाअनुसं
CAFRI

TARGET: 10 Lakhs

ACHIEVED: 9.54 Lakhs





Farmers participation in the Tree Planting Campaign



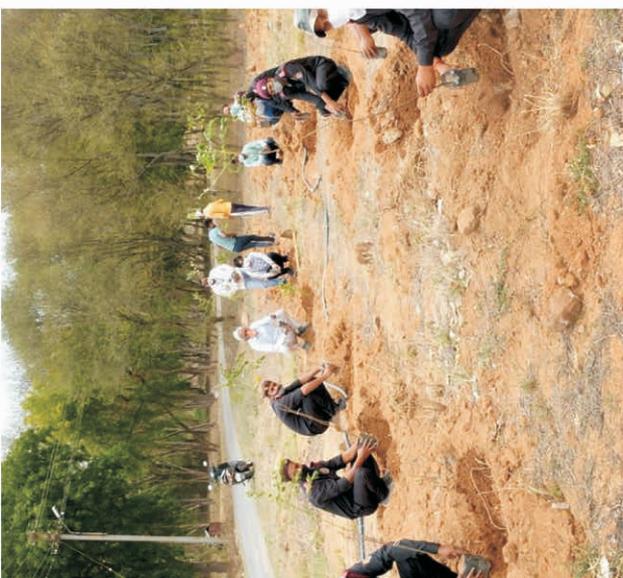
List of commonly planted tree species planted

S.No	Common Name	Scientific Name
1	Teak	<i>Tectona grandis</i>
2	Bel	<i>Aegle marmelos</i>
3	Rain tree; monkey pod tree	<i>Albizia saman</i>
4	Devil's tree	<i>Alstonia scholaris</i>
5	Jack	<i>Artocarpus heterophyllus</i>
6	Neem	<i>Azadirachta indica</i>
7	Purple Orchid tree	<i>Bauhinia triandra; B. purpurea</i>
8	Dwarf White Orchid tree	<i>Bauhinia acuminata</i>
9	Purple Orchid tree	<i>Bauhinia purpurea</i>
10	Kachnar	<i>Bauhinia variegata</i>
11	Malabar Semul, Red Silkcotton tree	<i>Bombax ceiba; B. malabaricum</i>
12	Alexandrian Laurel	<i>Calophyllum inophyllum</i>
13	Indian Labernum	<i>Cassia fistula</i>
14	Pink Shower tree	<i>Cassia javanica</i>
15	Beef wood, She oak tree	<i>Casuarina equisetifolia</i>
16	Deodar	<i>Cedrus deodara</i>
17	May Flower	<i>Delonix regia</i>
18	Indian coral tree	<i>Erythrina indica</i>
19	Eucalyptus	<i>Eucalyptus globulus</i>
20	Indian Banyan	<i>Ficus benghalensis</i>
21	Java Fig	<i>Ficus lacor</i>
22	Indian Laurel Fig	<i>Ficus retusa</i>
23	Japanese fern tree	<i>Filicium decipiens</i>
24	Gliricidia	<i>Gliricidia maculata</i>
25	Silver oak	<i>Grevillea robusta</i>
26	Anjan	<i>Hardwickia binata</i>
27	Blue Jacaranda	<i>Jacaranda mimosaeifolia</i>
28	Sausage tree	<i>Kigelia pinnata</i>
29	Pride of India, Queen of flowers	<i>Lagerstroemia flos reginae</i>
30	Persian Lilac	<i>Melia azedarach</i>
31	Malbar Neem	<i>Melia dubia</i>
32	Indian Beach tree	<i>Milletia pinnata</i>
33	Bullet Wood	<i>Mimusops elengi</i>
34	False ashoka	<i>Monoon longifolium</i>
35	Drum Stick	<i>Moringa oleifera</i>
36	Mulberry	<i>Morus alba</i>

37	Kadamba	<i>Neolamarckia cadamba</i>
38	Copper pod tree	<i>Peltophorum ferrugineum</i>
39	Anola	<i>Phyllanthus emblica</i>
40	Karanj	<i>Pongamia pinnata</i>
41	Guava	<i>Psidium guajava</i>
42	Pomegranate	<i>Punica granatum</i>
43	Lucky bean tree	<i>Putranjiva roxburghii</i>
44	Rain tree; monkey pod tree	<i>Albizia saman</i>
45	Asoka tree	<i>Saraca indica</i>
46	Paradise tree	<i>Simarouba glauca</i>
47	African Tulip Tree	<i>Spathodea companulata</i>
48	Buddha coconut tree	<i>Sterculia alata</i>
49	Mahagony	<i>Swietenia mahagoni</i>
50	Jamun	<i>Syzygium cumini</i>
51	Rohida	<i>Tecomella undulata</i>
52	Arjun	<i>Terminalia arjuna</i>
53	Baheda	<i>Terminalia bellerica</i>
54	Red Sanders	<i>Pterocarpus santalinus</i>
55	Manila tamarind	<i>Pithecellobium dulce</i>



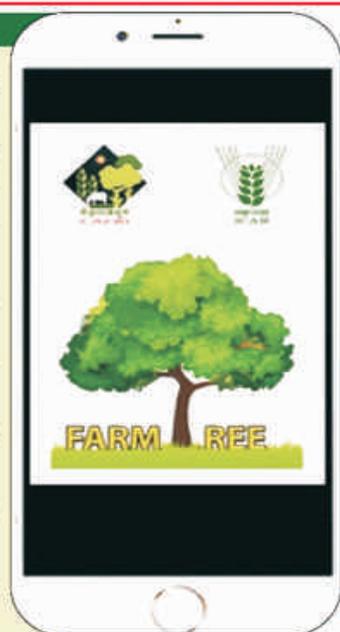
Quality Planting Material Generation at ICAR-CAFRI



'FarmTree' Mobile App

SALIENT FEATURES

- * Android-based mobile *app* covering 25 promising agroforestry tree species of India
- * Eucalyptus, Teak, Poplar, Mahogany, Neem, Mahaneem, Karanj, Sisham, Gliricidia, Kadamb, Bamboo, Gamhar, Siris, Simal, Mangium, Casuarina, Anjan, Khejri, Arjun, Malabar neem, Subabul, Chandan, Rakt chandan, Gmelina and Bhimal
- * Covers species description, package of practices, nursery techniques, plant protection and material availability supported with photographs
- * Highlights suitable agroforestry models for agro-climatic regions of India and success stories on agroforestry
- * Information accessible in both English and Hindi languages (Bilingual *app*)
- * User friendly with two-way communication (discussion on public forum or ask query with experts)
- * Compatible with all android mobile devices, freely available on google play store



A Glimpse of 'FarmTree' App



FarmTree logo



Choose language



25 Agroforestry Species



Tree Species Description



App menu



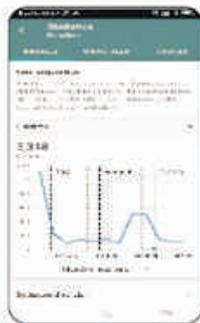
Share queries with Experts



Success Stories



Listed on KRISHI



Increasing Downloads



Launched FarmTree App
English & Hindi versions
Google Play Store Rating 4.73



ICAR-Central Agroforestry Research Institute
Jhansi, Uttar Pradesh





Map Showing AICRP - Agroforestry Centres



Sunderlal Bahuguna: The man who taught India to hug trees



AgriSearch with a human touch

केन्द्रीय कृषिवानिकी अनुसंधान संस्थान



“कृषिवानिकी: एक जीवन दायिनी”