

Office of Dean of Sustainability
Thapar Institute of Engineering & Technology
(Deemed to be University)
Patiala – 147004 INDIA

Activity: Tree Plantation

Location: Old Childers Park (Near Type-IV)

Date: 28 October 2024, Tuesday

A tree plantation drive was organized at Old Childers Park (Near Type-IV) to plant **Ramkela** Mango, Dusheri Mango, Langra Mango, Litchi, Pear, and Amla trees as part of the institute's ongoing sustainability and green campus initiatives. The event aimed to enhance biodiversity, promote eco-consciousness, and contribute to carbon sequestration for a cleaner and greener environment.

The event witnessed the gracious presence of Dr. Rafat Siddique (Dean, Sustainability), Dr. Kulbir Singh (Associate Dean, Sustainability), Dr. Hari Shankar Singh (Sustainability Coordinator), Dr. Dhamodaran (Sustainability Coordinator), Dr. Anmol (Assistant Professor, TSLAS), Mr. R. K. Nigam, Mr. S. K. Jain from CMS, TIET, and other members of the Sustainability Office and Staff.

Their collective participation reflected a strong commitment toward fostering environmental stewardship and promoting sustainable practices within the campus community. The plantation of fruit-bearing trees further symbolizes the institute's dedication to creating a self-sustaining green ecosystem that benefits both people and the planet.

Details of Plants

Name of Plant	Botanical Name	No. of Plants	Approx. CO ₂ Absorption (Pounds/Year)
Ramkela Mango	Mangifera indica (var. Ramkela)	10	300-400
Dusheri Mango	Mangifera indica (var. Dusheri)	5	300-400
Langra Mango	Mangifera indica (var. Langra)	5	300-00
Litchi	Litchi chinensis	10	250-350
Pear	Pyrus communis	10	200-300
Amla(Indian Gooseberry)	Phyllanthus emblica	10	150-250



Tree planted by Dr. Rafat Siddique, DoS



Watering and planting Dr. Rafat Siddique, DoS



Tree planting by Mr. R K Nigam, CGM, CMS, TIET



Tree planted Mr. S K Jain, CMS, TIET



Watering and planting by Dr. Anmol, TSLAS, TIET



Tree planting by Dr. Kulbir Singh, ADoS-1



Watering and planting by Dr. Kulbir Singh, ADoS-1



Tree planting by Dr. Dhamodaran, Sustainability Coordinator



Significance of the Planting

Mango (*Mangifera indica* – Ramkela, Dusheri, Langra):

Mango trees hold immense ecological, nutritional, and cultural importance. Beyond being one of India's most cherished fruit species, mango trees play a vital environmental role through carbon sequestration, shade provision, and microclimate regulation. Their dense canopy supports various bird and insect species, contributing to urban biodiversity. Mango trees are also known for their long lifespan and adaptability, making them valuable for sustainable landscape development and soil conservation. Planting multiple regional varieties—Ramkela, Dusheri, and Langra—helps preserve genetic diversity and supports local horticultural heritage.

Litchi (*Litchi chinensis*):

Litchi is a tropical fruit tree with ecological and economic significance. It attracts pollinators such as bees and butterflies, thereby enhancing biodiversity. Its dense foliage provides shade and habitat for small birds and insects. Environmentally, litchi trees contribute to CO₂ absorption and air purification, improving overall air quality. The fruit also supports local livelihood opportunities, reinforcing the nexus between environmental conservation and community well-being.

Pear (*Pyrus communis*):

Pear trees are **known** for their ability to adapt to diverse climatic conditions and improve soil fertility through organic litter fall. They serve as an excellent species for urban greening and orchard development, promoting sustainable food production within green spaces. The pear's blossoms attract pollinators, supporting ecosystem diversity and the natural regeneration of nearby flora.

Amla (*Phyllanthus emblica*):

Amla, or Indian Gooseberry, is revered in Ayurveda for its medicinal and antioxidant properties. Ecologically, it is a hardy and drought-tolerant species that can thrive in poor soils, making it suitable for afforestation and land restoration programs. Its deep root system enhances soil stability and water retention, while the fruit contributes to both health benefits and rural economies.

Sustainability and Environmental Impact:

The plantation of these fruit-bearing trees directly aligns with the institute's commitment to sustainability, biodiversity enhancement, and climate action. Together, they help reduce atmospheric CO₂ levels, enrich soil health, and strengthen the ecological balance of the

campus. By introducing species that offer both environmental and socio-economic value, the initiative demonstrates a holistic approach to sustainability—integrating green cover regeneration with community benefit.

Biodiversity and Ecosystem Support:

These species collectively support a thriving ecosystem by attracting pollinators, providing habitat for birds, and promoting ecological resilience. The mix of tropical and temperate fruit trees ensures year-round canopy cover and sustains a diverse range of flora and fauna, reinforcing the vision of a vibrant, self-sustaining green campus.

(Kulbir Singh)
Associate Dean Sustainability

(Rafat Siddique)
Dean Sustainability