



## **Manipal University Jaipur Protects Ecosystems and Biodiversity**

Manipal University Jaipur stands as a beacon of knowledge, innovation, and responsibility, in academia and in the preservation and expansion of our planet's diverse ecosystems and their intricate web of plant and animal life. In the face of mounting environmental challenges, Manipal University Jaipur has taken a proactive role in directly maintaining, nurturing, and extending existing ecosystems, promoting biodiversity as a fundamental goal. Manipal University Jaipur is actively engaged in conserving and enhancing the natural world around us.

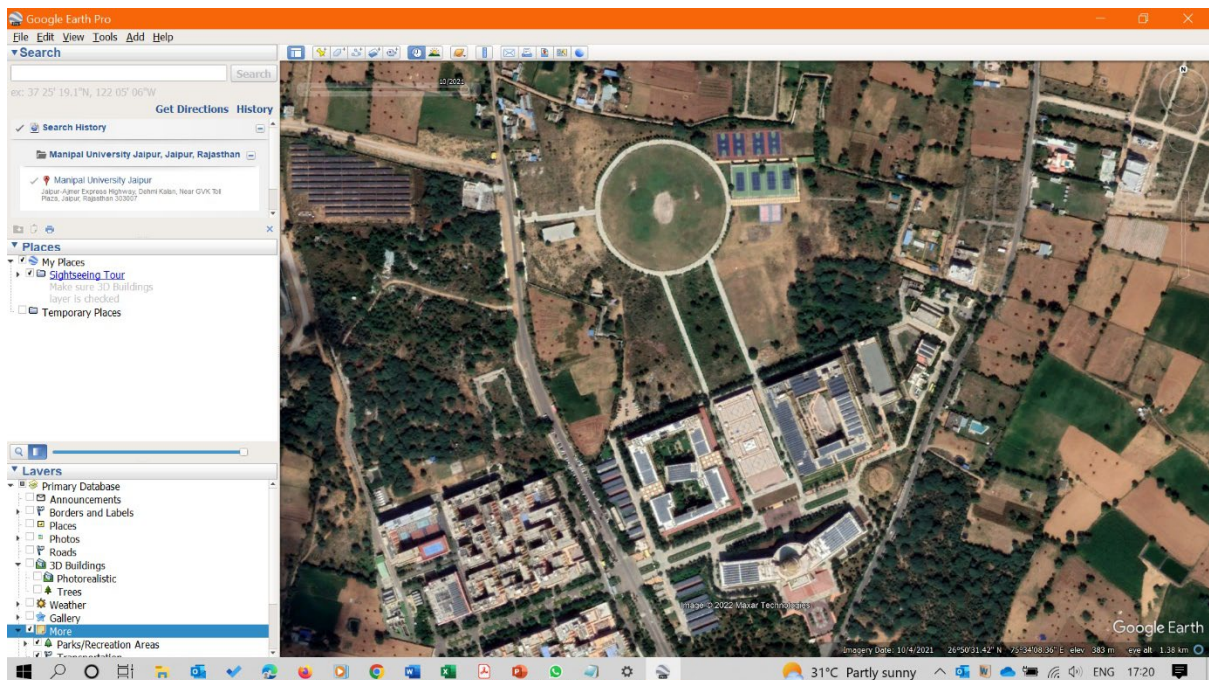
Manipal University Jaipur boasts a lavish campus, which transformed it into living laboratories for biodiversity conservation. Manipal University Jaipur prioritizes native plant landscaping, wildlife habitat creation, and sustainable land management practices, serving as inspirational examples for their communities. The heart of every university is a commitment to research and discovery. Manipal University Jaipur's professors, researchers, and students work dedicatedly to investigate ecosystems, study endangered species, and develop conservation strategies. Manipal University Jaipur actively engages in on-the-ground conservation efforts. It initiated restoration and rehabilitation projects in collaboration with local conservation organizations. These projects focus on rejuvenating degraded ecosystems, planting native species, and removing invasive plants or animals that threaten biodiversity. Manipal University Jaipur takes a step further by establishing and maintaining protected natural reserves. These areas become havens for local flora and fauna, allowing species to thrive undisturbed. These reserves also serve as outdoor classrooms, offering students a hands-on learning experience. Students play a pivotal role in university-led efforts to preserve biodiversity. Manipal University Jaipur encourages students to initiate and lead conservation projects, from organizing tree planting events to conducting wildlife surveys. This active involvement not only contributes to the projects' success but also fosters a sense of environmental responsibility among students. Manipal University Jaipur actively engages with the broader community. Through public outreach programs, nature walks, workshops, and educational campaigns, university raises awareness about biodiversity conservation, inspiring individuals and communities to join the cause. Manipal University Jaipur, with its blend of academic expertise, research capabilities, and a wealth of young, passionate minds, are powerful agents of change in the realm of biodiversity conservation. Through research, on-site initiatives, student involvement, public education, and partnerships, they are at the forefront of efforts to maintain, nurture, and extend existing ecosystems and their rich biodiversity.

## Maintain and extend current ecosystem's Biodiversity

### Life on Land



Earth Image of Barren Land before Manipal University Jaipur



Greenery – Trees- Plants after Muj establishment as on day



## Vegetation at MUJ

Regular Tree Plantation and Landscape  
at campus





## Tree Plantation at road side in vicinity





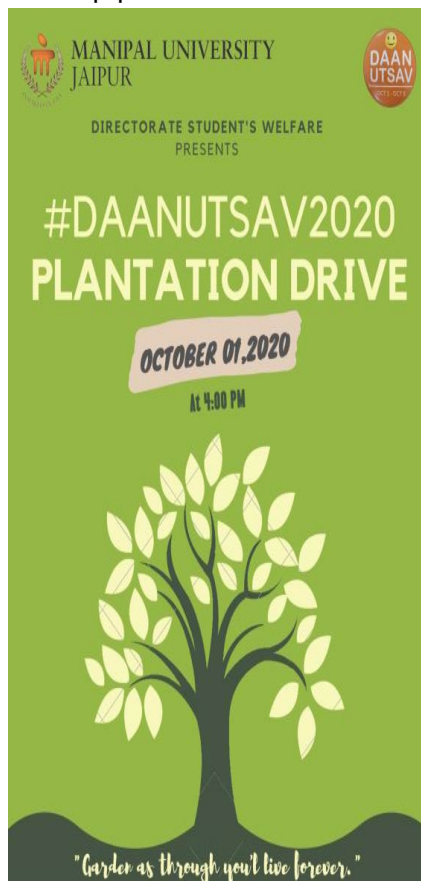
## Tree Plantation during Student Induction program in campus

Directorate of Students' Welfare, Sports actively supported in the induction program of Engineering and Non-engineering students organized. Deputy Director with the help of nucleus members and Sports Officer engaged the students in an enthusiastic manner in the plantation, sports activities and class activities.



## Tree Plantation Drive- in nearby villages

There is only one experienced '**Divine Reality**' with us that is nothing but our 'breaths'. We can live without food for one or two weeks, we can live without water for one or two days, but we cannot live without breath for more than one minute. And our trees are the one and only source who selflessly providing us those breaths. Thus, planting a tree is not only an act of plantation but also an act of planting divinity. Such kind auspicious act has done by a group of faculties (from DSW Society Connect) and Green Club of MUJ as a part of DAAN UTSAV in the campus of Government Primary School, Ramsinghpura, Jaipur, Rajasthan. The group has planted more than hundred trees (Mango, Neem etc.) and donated two water pipes to connect the trees plants.



## Biodiversity at MUJ



Unit	Academic	Hostel	Housing	total Green Area	Tree per capita
Area Green Cover in Sq Mtr	33,324.44	19,395.86	13,500.00	66,220.30	4.70

## Plant and Tree Species

Sr. No.	Name Of Tree
1	Delbergia Sisoo
2	Terminalia Arjuna
3	Allestonia
4	Bhuhania balkenia
5	Silver Oak
6	Jcaranda Memumsfolia
7	Chakresic
8	Karanj
9	Ficus Verins
10	Delonix Regia
11	Terminalia Chattapa
12	Azadrichata Indica
13	Dates Palm
14	Lagerstromia Indica
15	Golden Bamboo

	Occupied Green Area	Sq. Mtr
a	lawn	26488.1197
b	tree covered	2648811.97
c	hedges	13244.05985
d	potted plant	1000

	Name Of Plant
1	Murraya Exotica
2	Nerum Olegander Dwarf
3	Vernonia Elegfolia
4	Clerodenrum Inermie
5	Bougainvillea Subra Whir
6	Euphorbia Milli Pimk
7	Ficus Panda
8	Alamanda Dwarf- Yellow
9	Ixora Dwarf- Pink
10	Plumeria Alba
11	Cycas Revoluta
12	Rhoeo Discolor
13	Raphes Palm
14	Barleria Ubusa
15	Gulfumia Guluska
16	Railway Creeper



## Plants Category and record keeping at MUJ

### T6 Karanja *Millettia pinnata*

Indian sub continent & Southeast Asia

**Planted by** - Shree Abhay Jain

**Year of Plantation** - 21st March 2012

**Family**- Fabaceae



**Nature** - Evergreen  
**Climate** - Humid & Sub Tropical Region

**Leaf Texture** - Soft & Shiny

**Leaf Shape & Colour** - Round & Glossy  
Deep Green

**Foliage Shape** - Round

**Soil Type** -Sandy stony & clayey

**Tree Height** - 15 to 25 mts.

**Bark Diameter** - 50 cms.

**Region** - Temperate Asia, Australia



#### Uses

- It is used for landscaping purpuss due to large canopy & snowy fragrant flowers.
- The bark can be used to treat wounds caused by poisonous fish.
- The fruits & sprouts are used in many traditional remedies.
- Its oil known as Pongamia oil is used in soap making & as a lubricant.
- The residue of oil extraction is used as a fertilizer.

### T45 Kachnar *Bauhinia variegata*

Eastern Africa

**Planted by** - Shri Sunil Arora

**Year of Plantation** - 16-04-2012

**Family**- Leguminosae - Legumes



**Nature** - Deciduous

**Climate**- The desert/desert terrain plain of Western or Eastern Ghats.

Plateaus, plains of Ganges, Doab

Punjab, eastern ranges, north east zone, high altitudes.

**Shape & Colour of tree** - Twigs of tree are slender, light green, angled, hairy and brownish grey in colour.

**Foliage of tree** -Spreading crown and a short bole.

**Soil Type** - Acid and Neutral

**Height of tree** - Small to medium upto

15 M



Zoomed image



Leaf type



Flower type



#### Uses

- Treat hypothyroidism
- Controls blood sugar
- Treatment of digestive system problems

### T9 Jamun *Eugenia jambolama*

Indian sub continen

**Planted by** - Brig(Dr.) P.S.Siwach(Retd.)

**Year of Plantation** - 21st March 2012

**Family**- Myrtaceae



**Nature** - Evergreen

**Climate** - Tropical & Sub Tropical Region

**Leaf Texture** - Smooth, Leathery

**Leaf Shape & Colour** - Glossy  
Dark Green,Long with Pointy tips

**Foliage Shape** - Round

**Soil Type** - Deep Loamy

**Tree Height** - 30 mts.

**Bark Diameter** - 40-100 cms

**Region** - India, Myanmar & Srilanka



#### Uses

- Jambolan fruits can be eaten raw or are made into jams.
- Fruits have great nutritionl value.
- Jambolan is used in medicine for diabeties, swelling of the stomach, constipation, diarrhea & other conditions.
- Jamun fruit is used in treating common cold, cough & flu.
- Jamun fruit helps in regulating blood pressure.
- The tree bark can be used for decoration.

### T15 Maulsari *Minusops elengi*

South Asia

**Planted by** - Ms Krishna Poonia

**Year of Plantation** - 18-01-2017

**Family**- Sapotaceae (Mahua family)



Fruit type

**Nature** -Evergreen

**Climate** - Summer season

**Shape & Colour** - **Bark**: Thick bark and appears dark brown in color

**Foliage of tree** - Glossy, dark green leaves

**Soil Type** -Rich free draining loamy and sandy soil with PH of 5.5-8.5

**Height of tree**- 9-18 m (30-59 ft)

**Diameter of trunk** -1m (3ft 3in)

**Region** - Tropical forest in South Asia, Southeast Asia and northern Australia



Zoomed image



Flower type



Leaf type



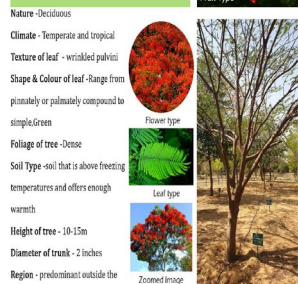
#### Uses

- Treatment and maintenance of oral hygiene
- Rinsing mouth with water solution made with bakul helps in strengtheing the teeth
- Prevents bad breath
- Keeps gums healthy



## T44 Gulmohar *Fabaceae*

Planted by - Shri Purushottam Agarwal  
Year of Plantation - 2014  
Family- Leguminosae - Leguminosae



**Nature** - Deciduous  
**Climate** - Temperate and tropical  
**Texture of leaf** - wrinkled pubescent  
**Shape & Colour of leaf** - Range from pinnately or palmately compound to simple green  
**Foliage of tree** - Dense  
**Soil Type** - soil that is above freezing temperatures and offers enough warmth  
**Height of tree** - 10-15m  
**Diameter of trunk** - 2 inches  
**Region** - predominant outside the tropics

**Uses**  
- Anti-diabetic activity  
- To treat polymenorrhea, anemia, ulcers and menorrhagia (during pregnancy).  
- In the treatment of diarrhoea, in overcoming the protein deficiency Kwashiorkor and can also impact hypocholesterolaemic conditions, and thyroxine-induced hyperglycaemia.

## T43 Kadamb *Neolamarckia cadamba*

Southeast Asia

Planted by - Smt. Vasanti Pai  
Year of Plantation - 2012  
Family- Madder family



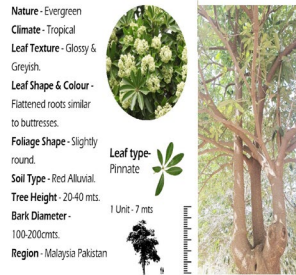
**Nature** - Evergreen  
**Climate** - Tropical  
**Shape & Colour of Flowers** - flowers are sweetly fragrant, red to orange in colour, occurring in dense  
**Foliage of tree** - broad crown and straight cylindrical bole  
**Soil Type** - It grows well in deep moist alluvial soils, often along river banks.  
**Height of tree** - up to 45 m  
**Diameter of trunk** - 100cm  
**Region** - South and Southeast Asia

**Uses**  
- Low-grade timber and paper  
- Timber is used for plywood and light construction.

## T10 Saat Patti *Alstonia scholaris*

Southern China, Tropical Asia and Australasia

Planted by - Dr. Ajay Kumar  
Year of Plantation - 21st March 2012  
Family- Apocynaceae



**Nature** - Evergreen  
**Climate** - Tropical  
**Leaf Texture** - Glossy & Greyish  
**Leaf Shape & Colour** - Flattened roots similar to buttresses.  
**Foliage Shape** - Slightly round.  
**Leaf type** - Pinnate  
**Soil Type** - Red Alluvial  
**Tree Height** - 20-40 mts.  
**Bark Diameter** - 100-200cmts.  
**Region** - Malaysia Pakistan

**Uses**  
- *Alstonia scholaris* has been used in different system of traditional medication for the treatment of diseases.  
- The wood of *Alstonia scholaris* has been recommended for the manufacture of pencils.  
- Wood close to the root is very light and of white color, and is used for net floats, household utensils, trenchers, corks, etc.  
- Used for landscape purpose.

## T19 Bottle Brush *Callistemon*

Australia

Planted by - D.S.Chauhan  
Year of Plantation - 18-01-2017  
Family- Myrtle



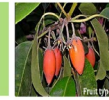
**Nature** - Evergreen  
**Climate** - Temperate regions  
**Texture of flower** - Furry  
**Shape & Colour** - Flower: Red flower spikes  
**Foliage of tree** - Crown is rounded to buttresses.  
**Soil Type** - Well-drained, sandy soil. Also grow in clay or loam  
**Height of tree** - 10-15 ft  
**Diameter of tree** - 10 to 15m  
**Region** - Western North America and in colder regions in greenhouses

**Uses**  
- Ornamental landscaping  
- Common remedies for treatment of diarrhoea, dysentery and rheumatism

## T15 Mulsari *Minusops elengi*

South Asia

Planted by - Ms Krishna Poonia  
Year of Plantation - 18-01-2017  
Family- Sapotaceae (Mahua family)



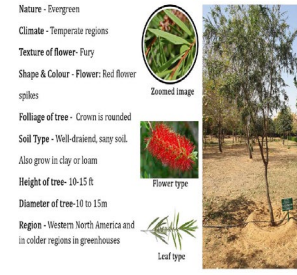
**Nature** - Evergreen  
**Climate** - Summer season  
**Shape & Colour** - Bark: Thick bark and appears dark brown in color  
**Foliage of tree** - Glossy, dark green leaves  
**Soil Type** - Rich free draining loamy and sandy soil with pH of 5.5-8.5  
**Height of tree** - 9-18 m (30-59 ft)  
**Diameter of trunk** - 1m (38.3in)  
**Region** - Tropical forest in South Asia, Southeast Asia and northern Australia

**Uses**  
- Treatment and maintenance of oral hygiene  
- Rinsing mouth with water solution made with bark helps in strengthening the teeth  
- Prevents bad breath  
- Keeps gums healthy

## T19 Bottle Brush *Callistemon*

Australia

Planted by - D.S.Chauhan  
Year of Plantation - 18-01-2017  
Family- Myrtle



**Nature** - Evergreen  
**Climate** - Summer season  
**Texture of flower** - Furry  
**Shape & Colour** - Flower: Red flower spikes  
**Foliage of tree** - Crown is rounded  
**Soil Type** - Well-drained, sandy soil. Also grow in clay or loam  
**Height of tree** - 10-15 ft  
**Diameter of tree** - 10 to 15m  
**Region** - Western North America and in colder regions in greenhouses

**Uses**  
- Ornamental landscaping  
- Common remedies for treatment of diarrhoea, dysentery and rheumatism

## T40 Rugtoora *Spathodea campanulata*

Tropical Africa

Planted by - Shri N.R Narayan Murthi  
Year of Plantation - 2018  
Family- Bignoniaceae



**Nature** - Deciduous  
**Climate** - Cooler tropical climate  
**Shape & Colour** - Bark: when young is pale grey-brown and smooth which turns to grey-black.  
**Foliage of tree** - Compact, round crown of dense and dark green foliage  
**Height of the tree** - 7-25 m  
**Region** - West coast from Guinea to Angola, and inland across the tropical rainforest region to southern Sudan and Uganda

**Uses**  
- Cure rashes and inflamed skin,  
- Lower blood sugar levels,  
- Treat ulcers,  
- Treat diabetes,  
- Cure glaucoma

## T39 Sheesham *Dalbergia sissoo*

Indian subcontinent

Planted by - Shri G.S. Sandhu (IAS)  
Year of Plantation - 2014  
Family- Leguminosae - Mimosoideae



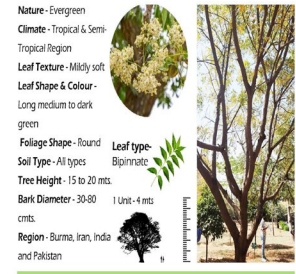
**Nature** - Deciduous Tree  
**Climate** - Indian subcontinent and southern Iran  
**Texture of trunk** - are often eroded when grown in the open. Leaves are leathery  
**Foliage of tree** - Round foliage  
**Soil Type** - Soils range from pure sand and gravel to rich alluvium of river banks.  
**Height of tree** - 25 m (82 ft)  
**Diameter of trunk** - 2-3 m  
**Region** - Native to India, Pakistan and Nepal

**Uses**  
- Decoration of leaves is useful in gonorrhoea.  
- Wood is alternative, useful in leprosy, boils, eruptions and to ally vomiting.  
- The wood is used for making doors, window frames, furniture, especially cabinets and much more.  
- The pulp of wood is also used for making papers.

## T17 Neem *Azadirachta indica*

Indian sub continent

Planted by - Dr. Kiran Mazumdar Shan  
Year of Plantation - 9th August 2014  
Family- Mahogany family, Meliaceae



**Nature** - Evergreen  
**Climate** - Tropical & Semi-Tropical Region  
**Leaf Texture** - Mildly soft  
**Leaf Shape & Colour** - Long medium to dark green  
**Foliage Shape** - flound  
**Soil Type** - All types  
**Tree Height** - 15 to 20 mts.  
**Bark Diameter** - 30-80 cmts.  
**Diameter of trunk** - 2-3 m  
**Region** - Burma, Iran, India, and Pakistan

**Uses**  
- The neem tree is noted for its draught resistance. It can grow in many different type of soil.  
- Dried neem leaves prevents insects from eating clothes and can also be used in storing rice.  
- The flowers and the shoot are eaten as a vegetable.  
- Products made from neem tree can be used as medicine.  
- Neem is a key ingredient in pesticides.

## T24 Ashoka *Saraca asoca*

Indo-Malaysian and Sri Lanka

Planted by - Shri J.C. Mohanty  
Year of Plantation - 18-01-2017  
Family- Legumes



**Nature** - Evergreen  
**Climate** - Rain forest tree. Central areas of Deccan plateau  
**Texture of Bark** - Warty surface  
**Shape & Colour** - Leaf: Green colored leaves with oblong shape.  
**Foliage of tree** - Shiny foliage  
**Height of the tree** - 10'-15' tall  
**Diameter of trunk** - 3m  
**Region** - Central areas of the Deccan plateau

**Uses**  
- Reduces acne, pimple  
- Very useful in gynaecological conditions  
- Boosts memory power  
- Beneficial in diabetes

## T42 Bargad *Ficus benghalensis*

Indian subcontinent

Planted by - Dr. Ramdas M. Pai  
Year of Plantation - 21-03-2012  
Family- Moraceae



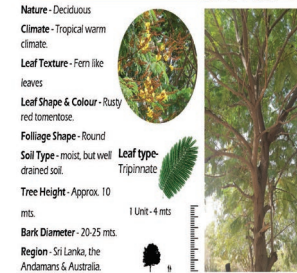
**Nature** - Evergreen  
**Climate** - Monsoon and rain forests  
**Texture of leaf** - leathery  
**Shape & Colour** - Heart and green  
**Foliage of tree** - Round Foliage  
**Soil Type** - High moisture  
**Height of tree** - up to 30m (100 ft)  
**Diameter of trunk** - spreads laterally indefinitely  
**Region** - south eastern region of India

**Uses**  
- Boosts immunity  
- Prevents depression  
- Treats vomiting  
- Lowers cholesterol  
- Prevents inflammation

## T8 Peela Gulmohar *Peltophorum pterocarpum*

Tropical south-eastern Asia

Planted by - Dr. D. Srikanth Rao  
Year of Plantation - 21st March, 2012  
Family- Legumes



**Nature** - Deciduous  
**Climate** - Tropical warm climate.  
**Leaf Texture** - Fern like leaves  
**Leaf Shape & Colour** - Rusty red tomentose.  
**Foliage Shape** - Round  
**Soil Type** - moist, but well drained soil.  
**Tree Height** - Approx. 10 mts.  
**Bark Diameter** - 20-25 mts.  
**Region** - Sri Lanka, the Andamans & Australia.

**Uses**  
- Gulmohar is well known for its beautiful flowers.  
- It also has some medicinal properties like Anti-diabetic activity, Anti-bacterial activity, Anti-diarrheal property, Hepatoprotective/Cytotoxic property, Anti-microbial activity, Anti-inflammatory activity



## Birds at MUJ – Nature Smiles at MUJ

Birds of Prey, Owls, Nightjars

Habitat: Woodlands



Pigeon Sized Birds

Habitat: Near Human Habitation



..... Crow Sized Birds

Habitat: Urban area + Forest Edges



..... Sparrow/Bulbul/Myna Sized Birds

Habitat: Gardens+ Scrublands+ Groves



Ground Dwelling Birds

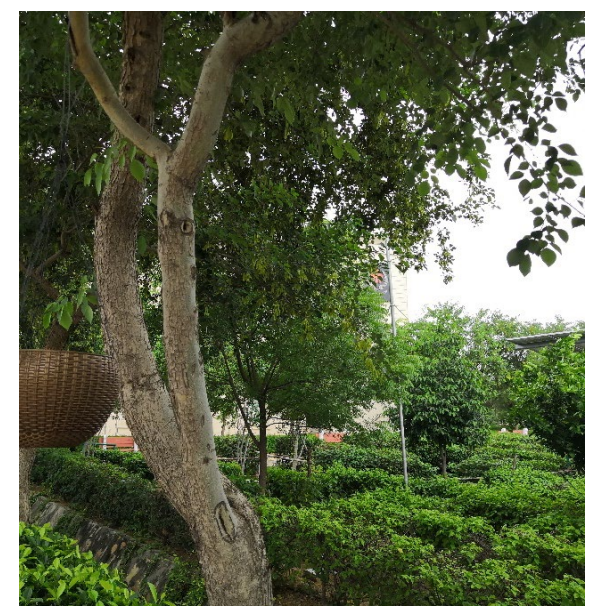
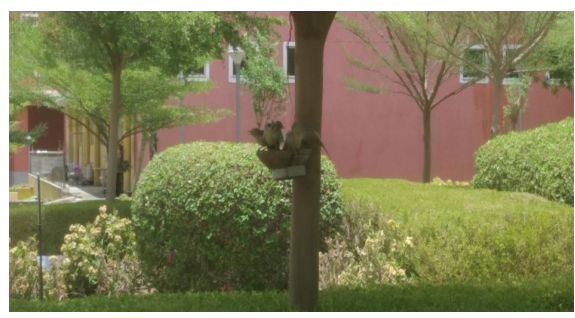
Habitat: Fields and Forest Edges







## Food grain pots for Birds in Campus





## Birds Habitat at MUJ-

<https://www.youtube.com/watch?v=vmuSabE94LE>



The Rose Ringed Parakeet perches on branches of Shisham and Neem tree

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Habitat For Birds, Manipal University Jaipur



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Habitat For Birds, Manipal University Jaipur



The oriental magpie bird caught singing while perching on a tree

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The jungle babbler chirps while perching on the branches of Neem Tree

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Red Wattle Lark, Jungle Babbler, Rose-Ringed Parakeet and Oriental Magpie Robin are seen on the site

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**Nature smiles at MUJ-**

<https://www.youtube.com/watch?v=Xg6XOKuUtkM>