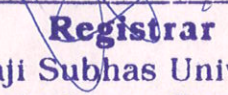




CRITERIA 7.1.3

Describe the facilities in the institution for the management of the following types of degradable & non-degradable waste


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Netaji Subhas University is aware of the fact that proper waste management is one of the key necessities for a well-defined ecosystem. It is one of the important pillars for proper campus development. The University works on the mission of "Clean and Green Campus" which involves proper management of solid waste, liquid waste, biomedical and E-Waste management. The University is working in collaboration with various NGOs as well which provides a road way and new initiatives are lined up to keep the momentum and the mission energized. Various ingenuities underway inside the campus are:

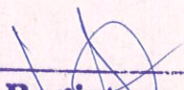
Netaji Subhas University's principle is to keep the campus in pristine condition in order to provide a conducive environment for academic and non-academic activities. All stakeholders follow good hygienic practices as well as a comprehensive waste management plan. The core concern is to reduce, reuse and recycle wastes generated in the campus.

For liquid waste management, the water transport system is inspected for leaks in pipes, taps, valves and other components on a regular basis and promptly repaired. To ensure a clean and safe potable water supply, a reverse osmosis plant with a capacity of 5000 litres of water is in operation in the main block and in the library. The RO plant's rejected water is then used for plants.

The Physical Education department has a first aid medical kit, where students are more susceptible to minor injuries. The kit's waste such as cotton gauze and plaster are disposed along with non-degradable wastes. All E-Wastes such as computer, its accessories and all electronic wastes are collected and discarded through the authorized vendor to ensure no hazard to the environment.

In the laboratories, hazardous chemicals and dyes are not used. Diluted acids are used in chemistry laboratories and are discharged directly. When it is necessary to use a strong acid or base, it is neutralized before discharge. In the laboratory, no radioactive elements of any kind or form are used.

The university has well maintained and pollution free environment because of meticulously following the green and waste management systems.


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7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste

1. Solid waste management
2. Biomedical waste management
3. E-waste management

7.1.3.1 Solid Waste Management



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nsujamshedpur Recycle it right.
Recycle station installed at NSU campus.... more
3 April 2023

Solid waste management (Compost Pit)

Vermicompost is an organic fertilizer produced through the breakdown of organic waste (such as vegetable scraps, leaves, and manure) by earthworms, particularly species like *Eisenia fetida* (red wigglers) and *Lumbricus rubellus*. It results in a nutrient-rich material that improves soil fertility and structure.

Importance of Vermicompost

1. Soil Health Improvement:

- Enhances soil aeration, structure, and water-holding capacity.
- Increases microbial activity, promoting healthy root growth.

2. Nutrient-Rich Fertilizer

- Contains essential nutrients like nitrogen, phosphorus, potassium, calcium, magnesium, and micronutrients in readily available forms for plants.

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Jamshedpur, Jharkhand

3. Eco-Friendly Solution:

- Reduces reliance on chemical fertilizers.
- Promotes sustainable agriculture by recycling organic waste.

4. Improves Plant Growth and Yield:

- Enhances germination rates, root development, flowering, and fruit production.

5. Pest and Disease Resistance:

- Vermicompost contains beneficial microbes that help suppress pests and diseases.

6. Cost-Effective:

- Low-cost production method that can be easily implemented at various scales.

7. Reduces Pollution:

- Helps in managing organic waste effectively, reducing landfill pressure and greenhouse gas emissions.



Vermicompost Unit 1

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Vermicompost Unit 2

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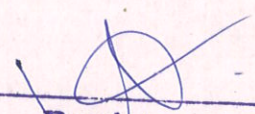
Solid waste management (Degradable & Non-degradable)

The university has different dustbins for different types of waste, such as biodegradable, recyclable and non-degradable. Green, blue and red bins have been provided across the campus for the collection of solid waste generated at different sources in the college. Organic waste is disposed off in compost pits and processed and reused as manure for the plants and trees inside the campus. Plastic usage is prohibited on campus so as to create a plastic-free zone.



Dry and Wet Dustbins




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7.1.3.2

Biomedical waste management



Biomedical Waste Management:

Bio-wastes are collected through various types of bags with different color codes for disposal, for example, Disposable bio-hazardous wastes are kept in red bags. Biological waste like fragile glass, glass slides and cover slips, razor blades, pipettes and pipette-tips are disposed of in a manner that prevents harm. Micro-biological wastes like cultures and stocks of infectious agents and associated microorganisms are kept in auto-cleavable plastic bags and sterilized by autoclaving and then transferred to micro waste containers and then handed over to a private recognized agency having a contract with the University. The agency vehicle collects these wastes daily from the Department and disposes of it.

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7.1.3.3

E-Waste Management



E-Waste Management:

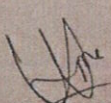
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Jamshedpur, Jharkhand


E-waste is generated when the electronic devices are discarded after they are out of service and their life time is exhausted. The E-waste generated in the campus are mainly the archaic and out of use electronic devices like computer systems, keyboards, electronic kits, etc.

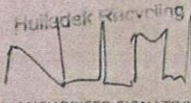
Hulladek Recycling Private Limited
 Deshpriya Sashmal Road, Kolkata 700033
 ☎ 1800-212-7880 | 📞 9903028800
 🌐 www.hulladek.in | ✉ help@hulladek.re

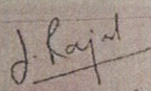
Hulladek
 Hungry for Waste

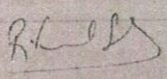
Code	Description	Unit	Rate
CEEV4	Air Conditioners	KG	₹ 35.00
CEEWS	Fluorescent and other mercury containing lamps/pencil batteries	KG	₹ 40.00
OTH1	Heavy Industrial waste (pump, motors etc)	KG	₹ 40.00
OTH1	Household appliances		₹ 12.00
OTH1	Miscellaneous (wires, spares, parts of equipment etc.)		₹ 12.00


 AUTHORISED SIGNATORY
 (Mr. Nagendra Kumar, Registrar)




 AUTHORISED SIGNATORY
 (Mr. Nandan Mall, Founder & MD)


 Witness 1
 J. Rajesh


 Witness 2
 Rajkamal Singh

RECYCLED

Registrar
 Netaji Subhas University
 Jamshedpur, Jharkhand

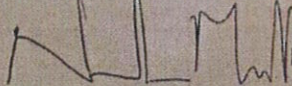
Hulladek Recycling Private Limited
 Deshpran Sashmal Road, Kolkata 700033
 1800-212-7880 | 9903028800
 www.hulladek.in | help@hulladek.re

Hulladek
 Hungry for Waste

Annexure

EEE Code	Description	UOM	Rate Paid by Hulladek (Rs. Per Kg) (+ive Item)	Rate paid by Second Party (Rs. Per Kg) (-ive Item) (Taxes Extra as applicable)
ITEW 1	IT Mainframes & Telecommunication Equipment including its parts & spares.	KG	₹ 22.00	
ITEW 2	IT Mainframes & Telecommunication Equipment including its parts & spares.	KG		
ITEW 3	Laptops, Notebooks and notepad computers including its parts and spares	KG	₹ 77.00	
ITEW 4	Laptops, Notebooks and notepad computers including its parts and spares	KG		
ITEW 5	Laptops, Notebooks and notepad computers including its parts and spares	KG	₹ 12.00	
ITEW 6	Printing & Copying equipment including its parts and spares	KG		
ITEW 7	Printing & Copying equipment including its parts and spares	KG	₹ 12.00	
ITEW 8	Printing & Copying equipment including its parts and spares	KG		
ITEW 10	Printing & Copying equipment including its parts and spares	KG	₹ 12.00	
ITEW 9	Communication equipment and its parts and spares	KG		
ITEW 11	Communication equipment and its parts and spares	KG	₹ 12.00	
ITEW 12	Communication equipment and its parts and spares	KG		
ITEW 13	Communication equipment and its parts and spares	KG	₹ 12.00	
ITEW 14	Communication equipment and its parts and spares	KG		
ITEW 16	Communication equipment and its parts and spares	KG	₹ 85.00	
ITEW 15	Cellular Phones and its parts and spares	KG		
CEEW1	Television Set (including LCD & LED)	KG	₹ 10.00	
CEEW2	Refrigerator	KG	₹ 12.00	
CEEW3	Washing Machines	KG	₹ 12.00	

Hulladek Recycling Pvt. Ltd.

 Director



GSTIN: 19AADCH4384E1Z1
 CPCB REGISTRATION NO.: B-29016(12)/(PRO)/18/WM-III Division



Registrar
 Netaji Subhas University
 Jamshedpur, Jharkhand

Hulladek Recycling Private Limited

Deshpran Sashmal Road, Kolkata 700033

1800-212-7880 | 9903028800

www.hulladek.in | help@hulladek.re

Hulladek
Hungry for Waste

5. To accumulate all E-Waste and inform to Hulladek Recycling once reasonable volume has accumulated.
6. To ensure that all the E-waste procured by or in the possession of them will be exclusively given to Hulladek Recycling Pvt. Ltd.
7. To share branding collaterals during seminars and events to maximize reach and promote the collaboration.
8. To handover all duly filled documents to Hulladek at a set frequency, within a time frame of four weeks.

REPORTING

The MOU and its undertakings will be reported and seen into by the under signed of this MOU.

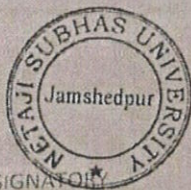
COMMERCIALS

The Second Party shall handover the E-waste items to the First Party. The First Party shall dispose off such waste as specifically agreed that they will charge the Second Party towards the handing over of E-waste as mentioned in ANNEXURE.

DURATION

This MOU is valid till September 2025 and may be modified by mutual consent of authorized officials from Netaji Subhas University and Hulladek Recycling Pvt. Ltd. This MOU shall become effective upon signature by the authorized and will remain in effect until modified or terminated by mutual consent.

AUTHORISED SIGNATORY
(Mr. Nagendra Kumar, Registrar)



AUTHORISED SIGNATORY
(Mr. Nandan Mall, Founder & MD)

Registrar
Netaji Subhas University
Jamshedpur, Jharkhand



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Hungry for Waste

MEMORANDUM OF UNDERSTANDING

BETWEEN

Hulladek Recycling Pvt. Ltd.
&
Netaji Subhas University

This Memorandum of Understanding (MOU) sets for the terms and understanding between Netaji Subhas University and Hulladek Recycling Pvt. Ltd. to provide for management of Electronic Waste.

PURPOSE

The shared objective of this partnership, in compliance with E-Waste (Management) Rules, 2016 and amendments thereafter, is to provide solutions for effective collection and channelization of Electronic Waste procured in the city by the society at large and is signed on this 8th October 2022.

The above goals will be accomplished by undertaking the following activities:

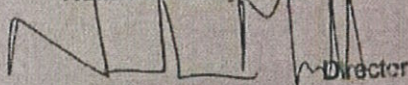
DELIVERABLES FROM HULLADEK RECYCLING PVT. LTD.:

1. To pick up, transport, carry and recycle/dispose of the E-Waste from Netaji Subhas University as per the norms prescribed by the Government Authorities from time to time.
2. To make available Utilization Certificate confirming that E-Waste provided has been recycled/ disposed of as per the norms prescribed by the Government Authorities within 60 days of the pick up the E-Waste.
3. To dispose of such equipment and specifically agreed that they will pay/charge towards the disposal of E-Waste. The pickups confirmed by the Second Party will be carried out on a priority basis within Seven days from the date of request.
4. To share records & data of the e-waste material procured.
5. To install 1 (one) "E-Waste Collection Bin" at Netaji Subhas University as Pokhari Bihari Pahari, Mango, Jamshedpur, or any other location as prescribed by Hulladek Recycling Pvt. Ltd. from time to time, and if need arises, additional bin(s) would be placed in the facility on prior notification.
6. To conduct 'Awareness Session' at the premises of the client for generating awareness about the benefits of and process of e-waste recycling.

DELIVERABLES FROM NETAJI SUBHAS UNIVERSITY:

1. To sign required documents to acknowledge that E-Waste has been handed over to the Hulladek Recycling.
2. The Agreement shall be in force for a period of Three (03) Years (8.10.2022 – 7.10.2025) from the date of execution of this agreement and can be renewed at the end of every period by mutual consent.
3. Netaji Subhas University has agreed to pay an 'agreement fee' to the first party of Rs. 13,000/- +GST as fee of 3 years contract. The fee shall be paid in advance of 3 years.
4. To handover the E-Waste on "as is where is basis". The second party is expected to generate 500 Kgs or more of E-Waste annually during each contractual term.

Hulladek Recycling Pvt. Ltd.


Director

GSTIN: 19AADCH4384E1ZI

CPCB REGISTRATION NO.: B-29016(12)/(PRO)/18/WM-III Division



Registrar
Netaji Subhas University
Jamshedpur, Jharkhand

MEDICIANL PLANTS INSIDE THE CAMPUS

The NSU spread an area of about 25.42 Acres. The area is immensely diverse with a variety of tree species performing a variety of functions. Most of these tree species are planted in different periods of time through various plantation programmes organised by the university and have become an integral part of the university. The trees of the university have increased the quality of life, not only the university fraternity but also the people around of the university in terms of contributing to our environment by providing oxygen, improving air quality, climate amelioration, conservation of water, preserving soil, and supporting wildlife, controlling climate by moderating the effects of the sun, rain and wind. Leaves absorb and filter the sun's radiant energy, keeping things cool in summer. Many species of birds are dependent on these trees mainly for food and shelter. Nectar of flowers and plants is a favourite of birds and many insects. Leaf covered branches keep many animals, such as birds, out of reach of predators. Different species display a seemingly endless variety of shapes, forms, texture and vibrant colours. Even individual trees vary their appearance throughout the course of the year as the seasons change. The strength, long lifespan and regal stature of trees give them a monument - like quality. They also remind us the glorious history of our institution in particular. We often make an emotional connection with these trees and sometime become personally attached to the ones that we see every day. A thick belt of large shady trees in the periphery of the college have found to be bringing down noise and cut down dust and storms. Thus, the university has been playing a significant role in maintaining the environment of its surrounding areas.

List of Medicinal Plants and Trees Inside the campus and Garden

Sl No	Common Name	Botanical Name	Uses	Numbers
1	Coconut tree	Cocus nucifera	Anti-microbial	10
2	Mango tree	Mangifera indica	Anti-bacterial, Anti-Fungal	15
3	Ashoka Tree	Saraca asoca	Blood Disorder Tumor	3
4	Acacia Tree	Acacia Nilotica	Throat Infection Wound healing	4
5	Teak Tree	Tictona Grandis	Skin disease Reducing fat	12
6	Rubber Tree	Ficus Elastica	Manufacturing Rubber	1
7	Champak Tree	Magnolia Champaca	Timber	2
8	Bottle palm	Hyophorbe Lagercaulis	Anaemia	20
9	Guava Tree	Psidium Guajava	Diabetes	5
10	Hoop Pine	Araucaria Cunningham	Flooring	2
11	Arica Palm	Dypsis Lutescens	Air purifier	4
12	Peace Lily	Spathiphyllum	Ornamental	2
13	Arebian Jasmine	Jasmine sambac	Liver Disease	3
14	Shami Tree	Prosopis Cineraria	Constipation	3

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Jamshedpur, Jharkhand

List of Medicinal Plants and Trees Inside the campus and Garden

15	China Rose	Hibiscus Rosa Sinesis	Skincare	3
16	Juhi	Jasminum Auriculatum	Perfumes	8
17	Croton	Codiaeum Variegatum	Biofuel	2
18	Belly Flower Plant	Jasminum Sombac	infections	7
19	Kamini Flower	Muraya Paniculata	Cough	2
20	Rose	Rosaceae	Anxiety	15
21	Lemon	Citrus Limon	Anti-cancer	1
22	Mussaenda Plant	Mussaenda Erythrophylla	Anti-Oxidant	3
23	Gulmohar Tree	Royal Poinciana	Jaundice	3
24	Kaner Ka Phool	Merium Oleander	Ulcer	3
25	Bael	Aegle marmelos	Bee farming	1
26	kathal	Artocarpus Heterophyllus	malaria	1
27	Sheesham Tree	Dalbergis Sissoo	Deprosy	1
28	Gulmohar	Delonix regia	Inflammation	1
29	Palash	Butea Monosperma	Dysentery	1
30	Shimul Red	Bombax Ceiba	Anti-Fungal	3
31	Shatavari	Asparagus Racemosum	Blood problem	3
32	Golden Ficus	Ficus Microcarpa Golden	Skin Disease	3
33	Tagar	Tebemontena	Cardio protective	2
34	Laung (Clove)	Syzygium Aeromalicum	Dyes	1
35	Cardamom	Elettaria Cardamomum	Gynaecological and urogenital disease	2
36	Dalchini	Cinnamomum Verum	Hormonal Balancing	1
37	Bay Leaf	Laurus Nobilis	Air purifier	2
38	Amla	Phyllonthus Amblica	Sleep inducing	1
39	Hadjor	Cissus Quadrangularis	Boosts Immunity	1
40	Henna	Lawsonia Inermis	Digestion	1
41	Coffee	Coffee Arabica	Vomiting, Headache	1
			Dental care	1
			Skin Rashes,	1
			Rheumatism	1
			Better Digestion	1
			Swelling	1
			Pain	1
			Healing fractures	1
			Intestinal Ulcers	1
			Mental Alertness	1

Registrar
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Jamshedpur, Jharkhand



Betel Leaf Plant



China Rose Plant

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 Netaji Subhas University
 Bhubaneswar, Jharkhand



Snake Plant



Pigeon wings (Aparajita)

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 Jamshedpur, Jharkhand

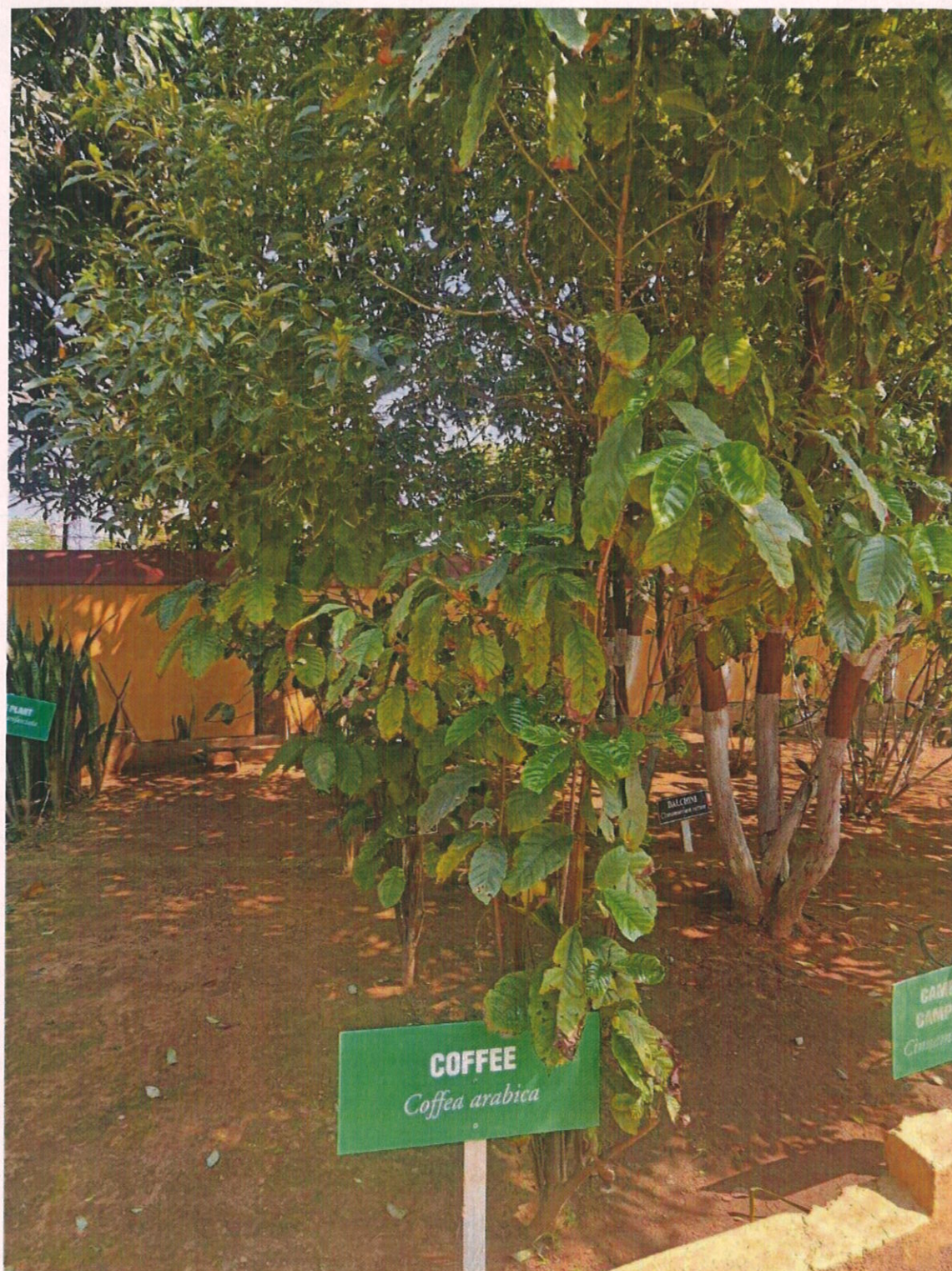


Teak Tree and Amla Tree



Shatavari Plant

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Gumshedpur, Jharkhand

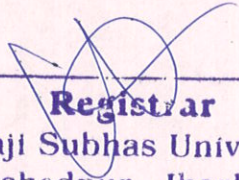


Coffee Plant

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Bay Leaf


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Jamshedpur, Jharkhand

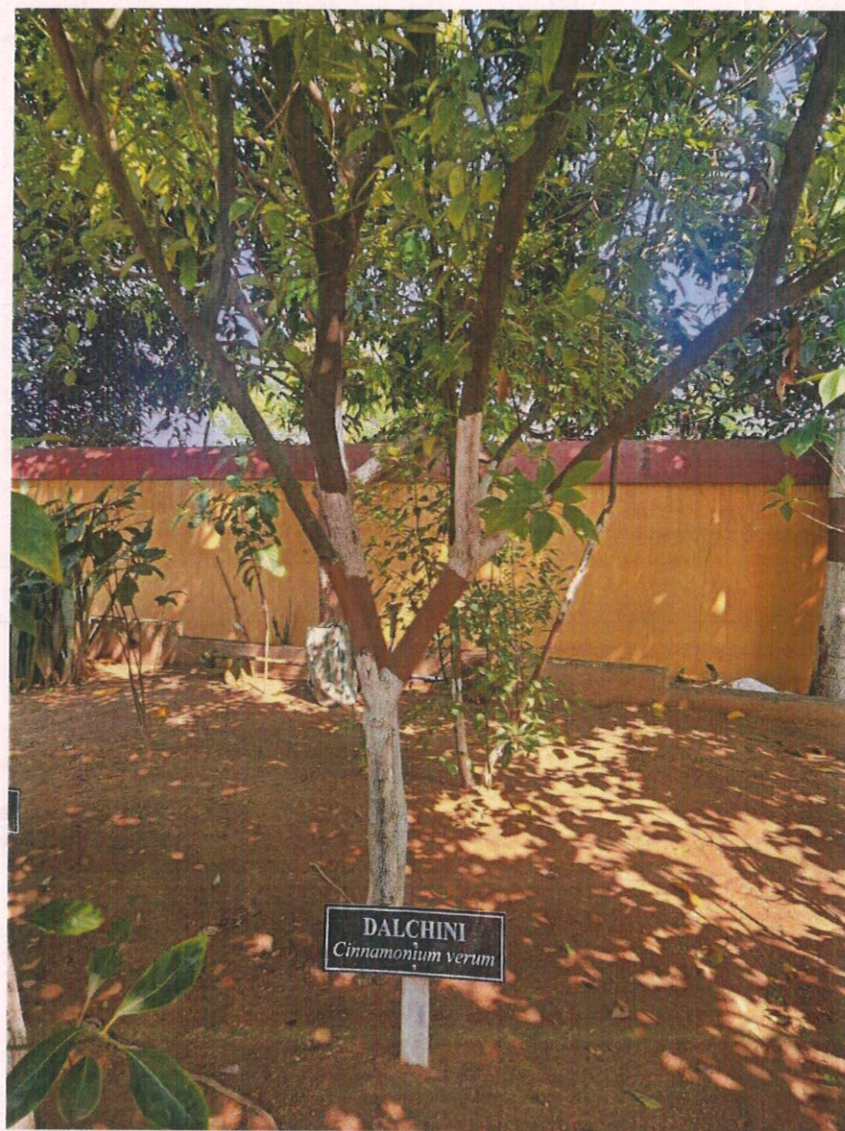


Holy BASIL Plant



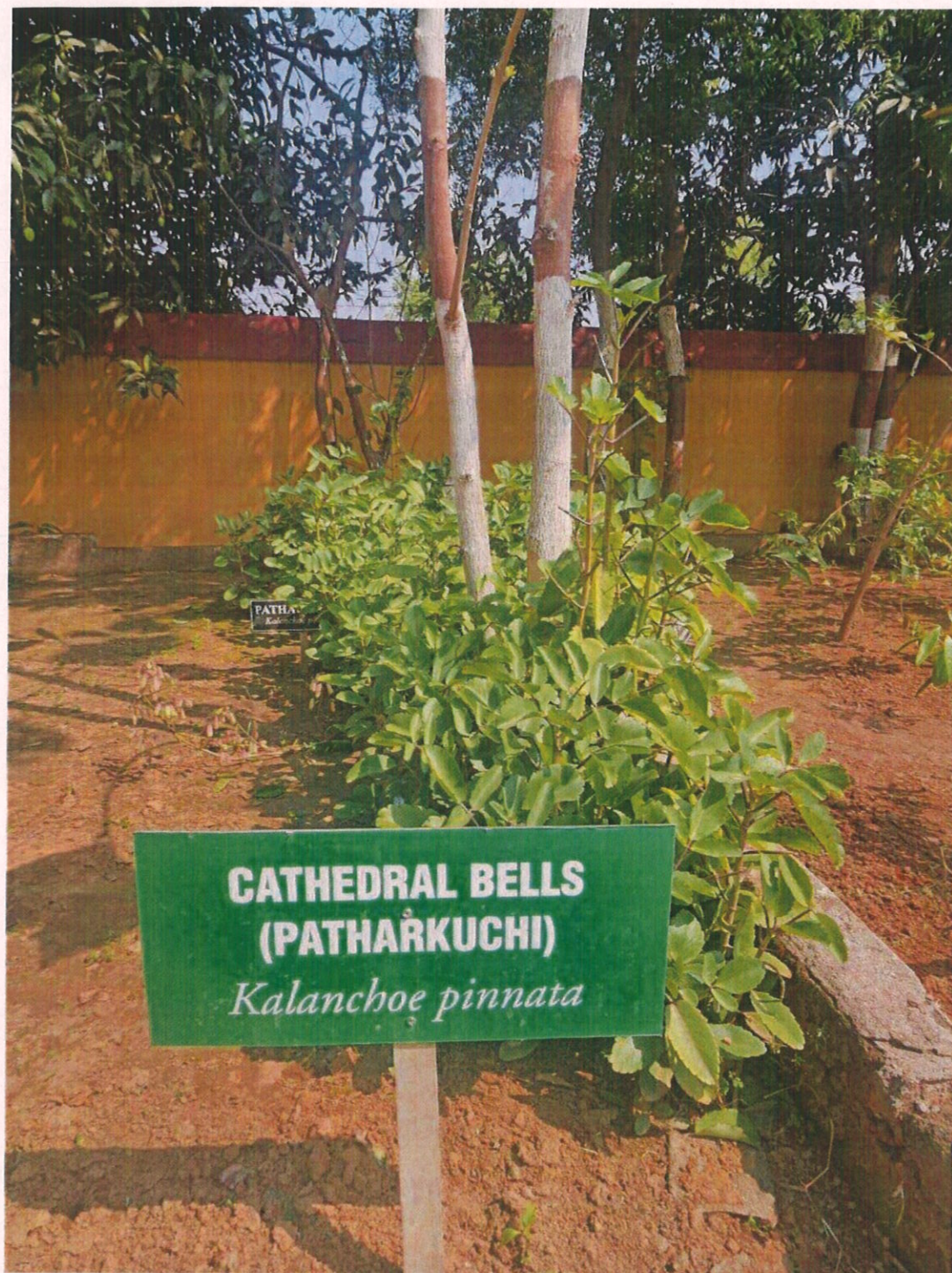
Elaichi Plant

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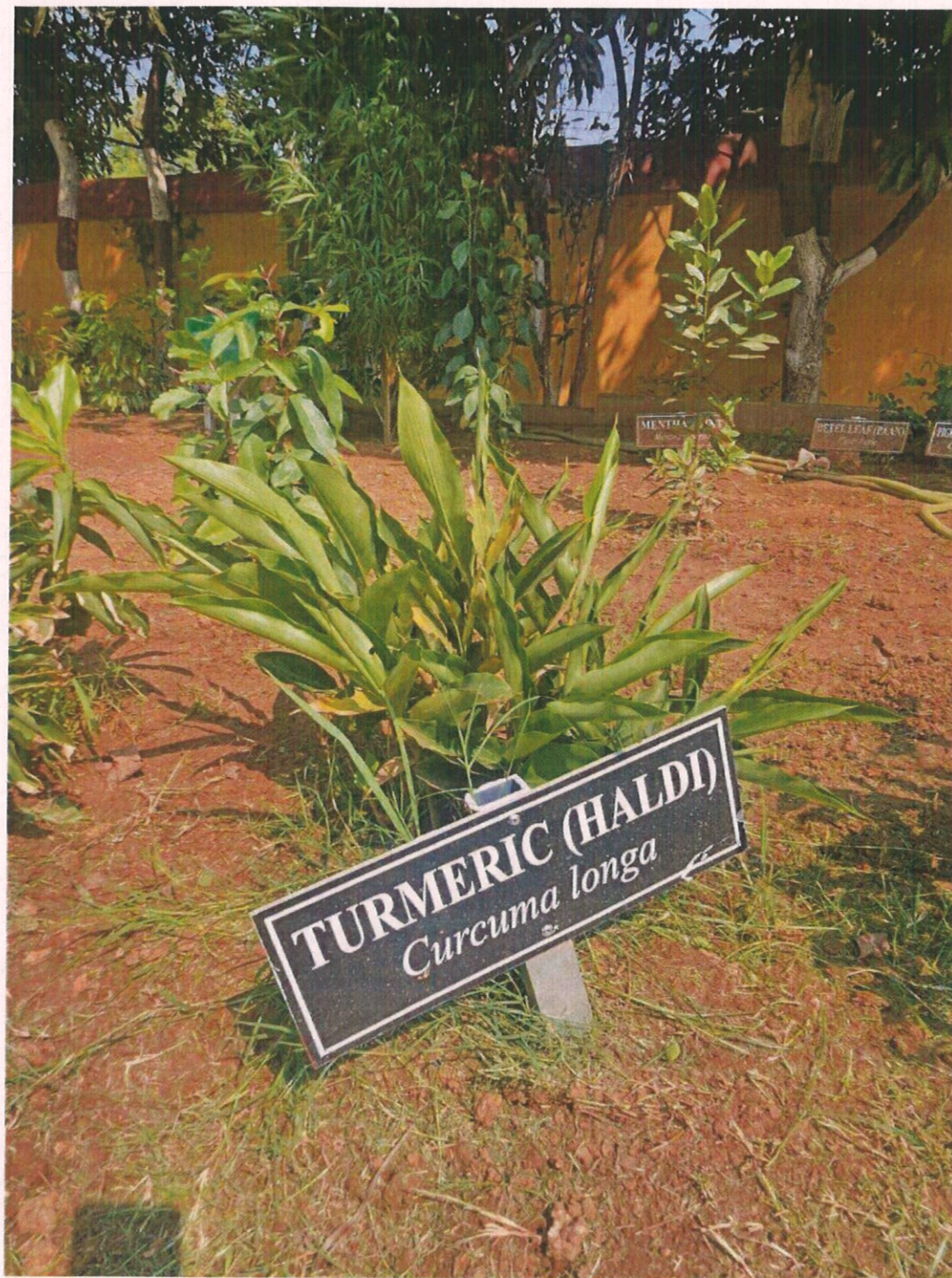
DALCHINI PLANT

Registrar
Netaji Subhas University
Samshedpur, Jharkhand



CATHEDRAL BELLS PLANT

Registrar
Netaji Subhas University
Ranchi, Jharkhand



TURMERIC (HALDI)

Registrar
Netaji Subhas University
Jamshe dpur, Jharkhand



CAMPHOR LAUREL PLANT

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Netaji Subhas University
Ranchi, Jharkhand