

Documentation On Medicinal Plants of Deva Deva Vana Botanical Garden of Bidar District, Karnataka

Siddharth Kanche¹, Dr. Vaishali Sidram Chatage²

^{*1}Botany Department, Shivaji Mahavidyalaya Udgir, Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra, India

²Botany Department, Kai Rasikabai College Devni, Shivaji Mahavidyalaya Udgir, Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra, India

ARTICLE INFO

Article History:

Accepted : 01 July 2024

Published : 10 July 2024

Publication Issue :

Volume 11, Issue 4

July-August-2024

Page Number :

287-305

ABSTRACT

The present study was undertaken to document medicinal plants of Deva Deva vana Botanical garden of Bidar district, karnataka. Deva Deva vana literally means 'Forest of divine/celestial beings' A Botanical garden maintained by the Forest department around 6 km from Bidar – Hyderabad Highway. It is home to around 200 medicinal plants and trees, and considered sacred. It is divided into around 10 gardens and a nursery which is classified according to a particular theme like Nandana vana, Ashoka vana, Navagraha vana, Rock Garden, shiva panchayath vana, Phala pushpa vana,...etc the documentation of medicinal plants helps to recognize the overall ecological conditions, conservation and gives profound understanding of the economic medicinal and traditional importance of medicinal plants diversity. The present research documentation work was started in February 2023 and completed in June 2024. The present study reported that 147 Medicinal plant species belongs to 64 families distributed and conserved in Deva Deva vana Botanical garden Bidar included angiosperms Pteridophytes and Gymnosperms. *Abrus precatorius*, *Ephedra*, *Withania somnifera*, *Catharanthus roseus*, *Tinospora cardifolia*, *Andrographis paniculata*, *Phyllanthus amarus*, *allium sativum*, *Cocos nucifera*, *Coleus aromaticus*, *Curcuma longa*, *Martynia annua*, *Ocimum tenuiflorum*, *Tamarindus indica*, *Terminalia chebula*, *Tithonia diversifolia*, *Acalypha indica*, *Brassica juncea*, *Clitoria ternatea*, *Datura metal*, *Delonix elata*, *Euphorbia antiquorum*, *Luffa acutangula*, *Madhuca longifolia*, *Myristica fragrans*, *Santalum album* and *Vitex negundo* are some of the important medicinal plants of Deva Deva vana Botanical garden Bidar district of karnataka.

Keywords: Documentation, Deva Deva vana, Botanical garden, Bidar, Sacred, Karnataka, Medicinal

I. INTRODUCTION

Deva Deva vana Botanical garden Bidar district of Karnataka, is traditionally rich for Biodiversity and natural resources, in this Botanical garden the most important medicinal plants are *Calotropis gigantea*, *Hibiscus rosa-sinensis*, *Citrus medica*, *Tridax procumbens*, *Helianthus annuus*, *Hamelia patens*, *Chrysanthemum indicum*, *Tegetus erectus*, *Catharanthus roseus*, *Nerium indicum*, *Thevetia nerifolia*, *Tabernaemontana divaricata*, *Ocimum sanctum*, *Vitex negundo*, *Datura stramonium*, *Jasminum nitidum*, *Laesonia inermis*, *Abrus precatorius*, *Ephedra*, *Withania somnifera*, *Catharanthus roseus*, *Tinospora cardifolia*, *Andrographis paniculata*, *Phyllanthus amarus*, *Allium sativum*, *Cocos nucifera*, *Coleus aromaticus*, *Curcuma longa*, *Martynia annua*, *Ocimum tenuiflorum*, *Tamarindus indica*, *Terminalia chebula*, *Tithonia diversifolia*, *Acalypha indica*, *Brassica juncea*, *Clitoria ternatea*, *Datura metel*, *Delonix elata*, *Euphorbia antiquorum*, *Luffa acutangula*, *Madhuca longifolia*, *Myristica fragrans*, *Santalum album*.....etc are the important medicinal plants which are documented in the present work an attempt was made to document the important medicinal plants of Deva Deva vana Botanical garden Bidar Bidar district.

Nature has been the source of medicinal plants like medicinal agents of living world for uncountable years even in this world from time to time more number of drugs have been isolated from natural sources, many based on their use in traditional medicine. These plants based traditional medicinal systems continue to play an essential and an unforgettable role in health care, with about 80% of the world's inhabitants relying mainly on traditional medicines for their primary health care, though

medicinal plants form the principle component of traditional medicine (Owolabi *et al.*, 2007). The purposes of this study were to identify, document the medicinally used plants by the people in Bidar District, Karnataka by the rural and tribal peoples and to find out which direction the local use and local knowledge of traditional medicine is taking for the treatment illnesses by the traditional healers who were living in the study area. There are so many documentation research work carried all over the world. It is clear that not much work has been done in Deva Deva vana Botanical garden Bidar district of Karnataka, India especially medicinal plants documentation Hence this research study was undertaken. Deva Deva vana literally means 'Forest of divine/celestial beings' A Botanical garden maintained by the Forest department around 6 km from Bidar – Hyderabad Highway. It is home to around 200 medicinal plants and trees, and considered sacred. It is divided into around 10 gardens and a nursery which is classified according to a particular theme like Nandana vana, Ashoka vana, Navagraha vana, Rock Garden, Shiva panchayath vana, Phala pushpa vana,...etc the documentation of medicinal plants helps to recognize the overall ecological conditions, conservation and gives profound understanding of the economic medicinal and traditional importance of medicinal plants diversity. Bidar is a hill top city in the north eastern part of Karnataka state in India. Comprises 8 talukas, namely Bidar, Humnabad, Bhalki, Aurad, Hulsoor, Chitgoppa, Kamalnagar and Basavakalyan. The people of this district are economically little backward, but culturally unique. They speak five languages and traditional knowledge flows from one culture to other. The medicinal plants diversity is very rich and a good number of medicinal plants are used in the treatment of various diseases therefore, the present study focused on the

Documentation of medicinal plants of Deva Deva vana Botanical garden Bidar district.

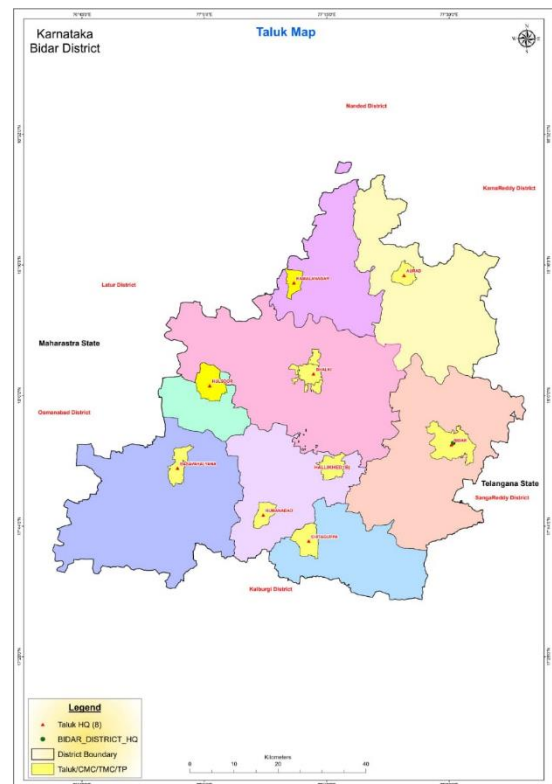
II. METHODS AND MATERIAL

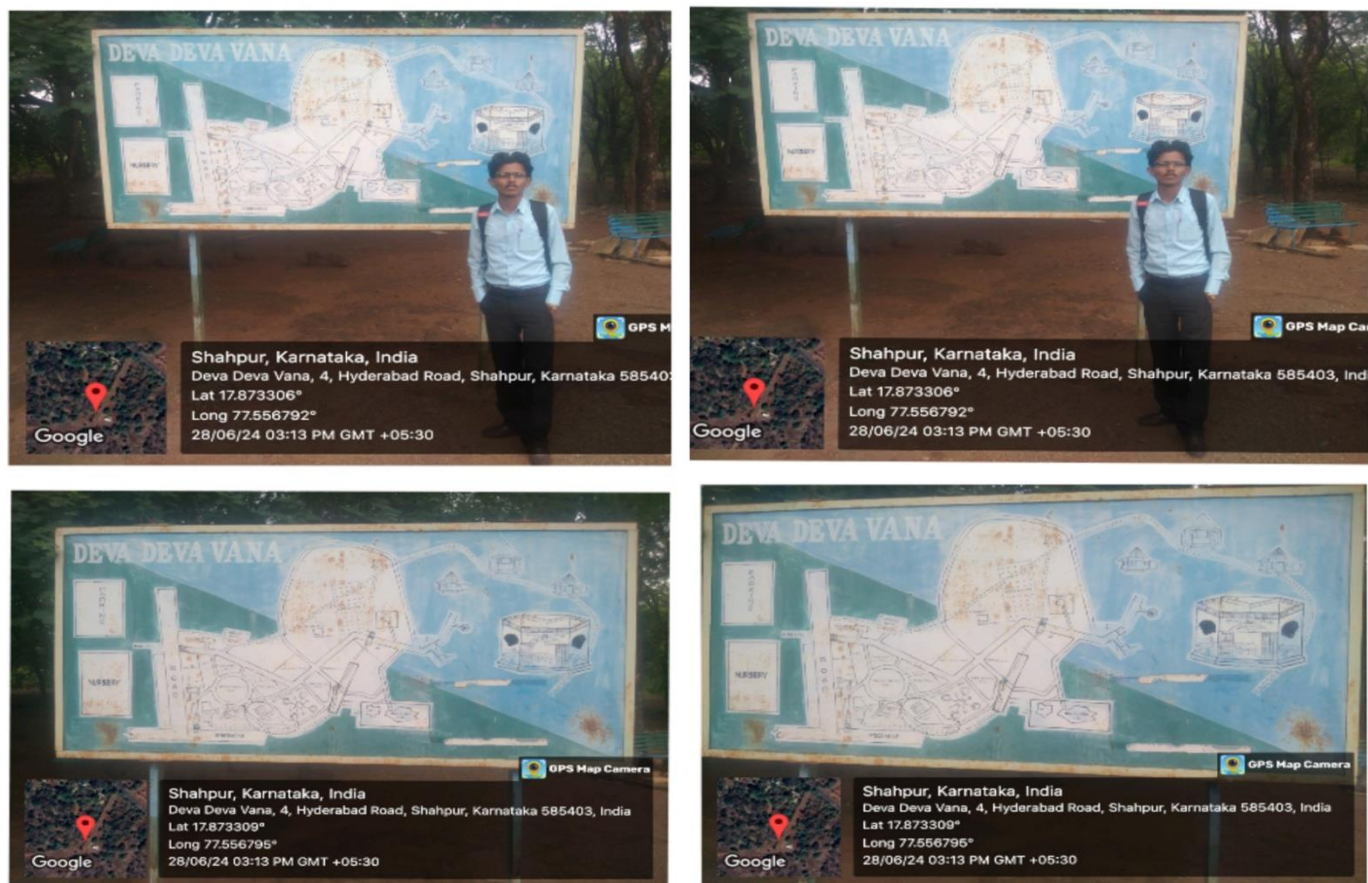
The present study titled Documentation on medicinal plants Deva Deva vana Botanical garden Bidar district, Karnataka

DESCRIPTION OF THE STUDY AREA:

Bidar is a hill top city in the north eastern part of Karnataka state in India. it is a rapidly urbanising city in the wider Bidar metropolitan area around and in the city so many industries are located. Geographical area 50% district has been established industrial base for Food and contains so much forest are among them Deva Deva vana Botanical garden is very famous for its rich vegetation medicinal plants and natural resources conservation.

STUDY AREA: BIDAR DISTRICT





STUDY AREA: DEVA DEVA VANA BOTANICAL GARDEN BIDAR

III.RESULTS AND DISCUSSION

During the present documentation on medicinal plants 147 plant species belonging to 64 families were reported among them the predominant families were Leguminosae, Apocynaceae, Euphorbiaceae, Amaranthaceae, Liliaceae, Rutaceae, myrtaceae with maximum species these plants are listed below.

BOTANICAL NAME	FAMILY	USES
<i>Abrus precatorius</i>	Fabaceae	Seeds, Roots
<i>Cassia tora</i>	Fabaceae	Leaves
<i>Lantana camara</i>	Verbenaceae	Leaves, Fruits
<i>Curry tree</i>	Rutaceae	Leaves
<i>Annona squamosa</i>	Annoaceae	Fruits, Leaves
<i>Casearia sylvestris</i>	Salicaceae	Flowers, Leaves
<i>Psidium guava</i>	Myrtaceae	Fruits, Leaves
<i>Agave foetida</i>	Asparagaceae	Leaves
<i>Bignonia capensis</i>	Bignoniaceae	Flower, Leaves
<i>Bryophyllum pinnatum</i>	Crassulaceae	Leaves
<i>Dracaena reflexa</i>	Asparagaceae	Leaves
<i>Ziziphus mauritiana</i>	Rhamnaceae	Fruits
<i>Dalbergia latifolia</i>	Fabaceae	Bark, leaves

<i>Withania somnifera</i>	Solanaceae	Leaves, roots, fruits
<i>Catharanthus roseus</i>	Apocynaceae	Rhizome
<i>Tinospora cardifolia</i> ,	Menispermaceae	Aerial parts
<i>Phyllanthus amarus</i>	Phyllanthaceae	Fruits
<i>Allium sativum</i>	Liliaceae	Bulb
<i>Martynia annua</i>	Martyniaceae	Leaves
<i>Ocimum tenuiflorum</i>	Lamiaceae	Medicinal
<i>Zingiber officinale</i>	Zingiberaceae	Rhizome
<i>Tamarindus indica</i>	Leguminosae	Fruit, wood
<i>Terminalia chebula</i>	Combretaceae	Medicinal, Timber
<i>Terminalia paniculata</i>	Combretaceae	Medicinal, Timber
<i>Acalypha indica</i>	Euphorbiaceae	Medicinal
<i>Polyscias fruticosa</i>	Araliaceae	Leaves
<i>Nephrolepis cordifolia</i>	Nephrolepidaceae	Leaves
<i>Plumeria rubra</i>	Apocynaceae	Flowers, Leaves
<i>Brassica juncea</i>	Cruciferae	Leaves
<i>Clitoria ternatea</i>	Fabaceae	Root
<i>Datura metal</i>	Solanaceae	Leaves
<i>Delonix elata</i>	Fabaceae	Leaves
<i>Euphorbia lacteal</i>	Euphorbiaceae	Latex
<i>Pleioblastus communis</i>	Poaceae	Leaves
<i>Vitex glabrata</i>	Lamiaceae	Leaves
<i>Bambusa</i>	Poaceae	Leaves, Stem
<i>Hamelia patens</i>	Rubiaceae	Leaves, Flowers
<i>Syzygium cumini</i>	Myrtaceae	Fruits, Leaves
<i>Agave desmetiana</i>	Asparagaceae	Leaves
<i>Bergera koenigii</i>	Rutaceae	Leaves
<i>Thuja articulate</i>	Cupressoidae	Leaves
<i>Syzygium polyanthum</i>	Myrtaceae	Flowers, Leaves
<i>Passiflora incarnata</i>	Passifloraceae	Flowers, Leaves
<i>Acalypha</i>	Euphorbiaceae	Flowers, Leaves

BOTANICAL NAME	FAMILY	USES
<i>Amherstia nobilis</i> Wall.	Leguminosae	Ornamental
<i>Alstonia scholaris</i> (L.)	Apocynaceae	Wood
<i>Mangifera indica</i> L.	Anacardiaceae	Fruit tree
<i>Nyctanthes arbor-tristis</i> L.	Oleaceae	Ornamental
<i>Psidium guajava</i> L.	Myrtaceae	Fruit tree
<i>Syzygium malaccense</i> (L.)	Myrtaceae	Fruit tree
<i>Pterocarpus santalinus</i> L.	Leguminosae	Wood
<i>Butea monosperma</i> (Lam.)	Leguminosae	Timber and medicinal plant
<i>Cananga odorata</i> (Lam.)	Annonaceae	Aromatic oil from flowers
<i>Artocarpus heterophyllus</i>	Moraceae	Fruit tree
<i>Cocos nucifera</i> (L.)	Arecaceae	Fruit plant
<i>Cyrtostachys renda</i>	Arecaceae	Ornamental
<i>Wodyetia bifurcata</i> A.	Arecaceae	Ornamental
<i>Tabernaemontana alternifolia</i> L.	Apocynaceae	Medicinal
<i>Artocarpus hirsutus</i>	Moraceae	Fruit
<i>Macaranga peltata</i> (Roxb.) Mull.	Euphorbiaceae	Wood
<i>Simarouba glauca</i> DC.	Simaroubaceae	Medicinal plant
<i>Jacaranda mimosifolia</i> D.	Bignoniaceae	Ornamental
<i>Bougainvillea glabra</i>	Nyctaginaceae	Ornamental
<i>Lannea coromandelica</i>	Anacardiaceae	Wood
<i>Hibiscus rosa-sinensis</i> L.	Malvaceae	Ornamental, Medicinal
<i>Moringa oleifera</i> Lam.	Moringaceae	Vegetable, Medicinal
<i>Phyllanthus emblica</i> L.	Phyllanthaceae	Fruit, Medicinal plant
<i>Murraya koenigii</i> (L.)	Rutaceae	Leaves, Medicinal
<i>Polyalthia longifolia</i>	Annonaceae	Shade tree, medicinal
<i>Ailanthus excelsa</i> Roxb.	Simaroubaceae	Softwood
<i>Areca catechu</i> L.	Arecaceae	Nuts
<i>Hamelia patens</i> Jacq.	Rubiaceae	Ornamental, Medicinal
<i>Ficus elastica</i> Roxb.	Moraceae	Ornamental
<i>Terminalia catappa</i> L.	Combretaceae	Ornamental, Fruit
<i>Azadirachta indica</i> A.	Meliaceae	Medicinal
<i>Magnolia champaca</i> (L.)	Magnoliaceae	Fragrant flowers, Timber
<i>Bauhinia variegata</i> L.	Leguminosae	Ornamental
<i>Santalum album</i> L.	Santalaceae	Sandalwood, oil
<i>Plumeria alba</i> L.	Apocynaceae	Ornamental
<i>Brunfelsia pauciflora</i>	Solanaceae	Ornamental
<i>Citrus limon</i> (L.)	Rutaceae	Fruit tree
<i>Pimenta dioica</i> (L.)	Myrtaceae	Spices
<i>Xylocarpus xylocarpa</i> (Roxb.)	Leguminosae	Ornamental, Timber

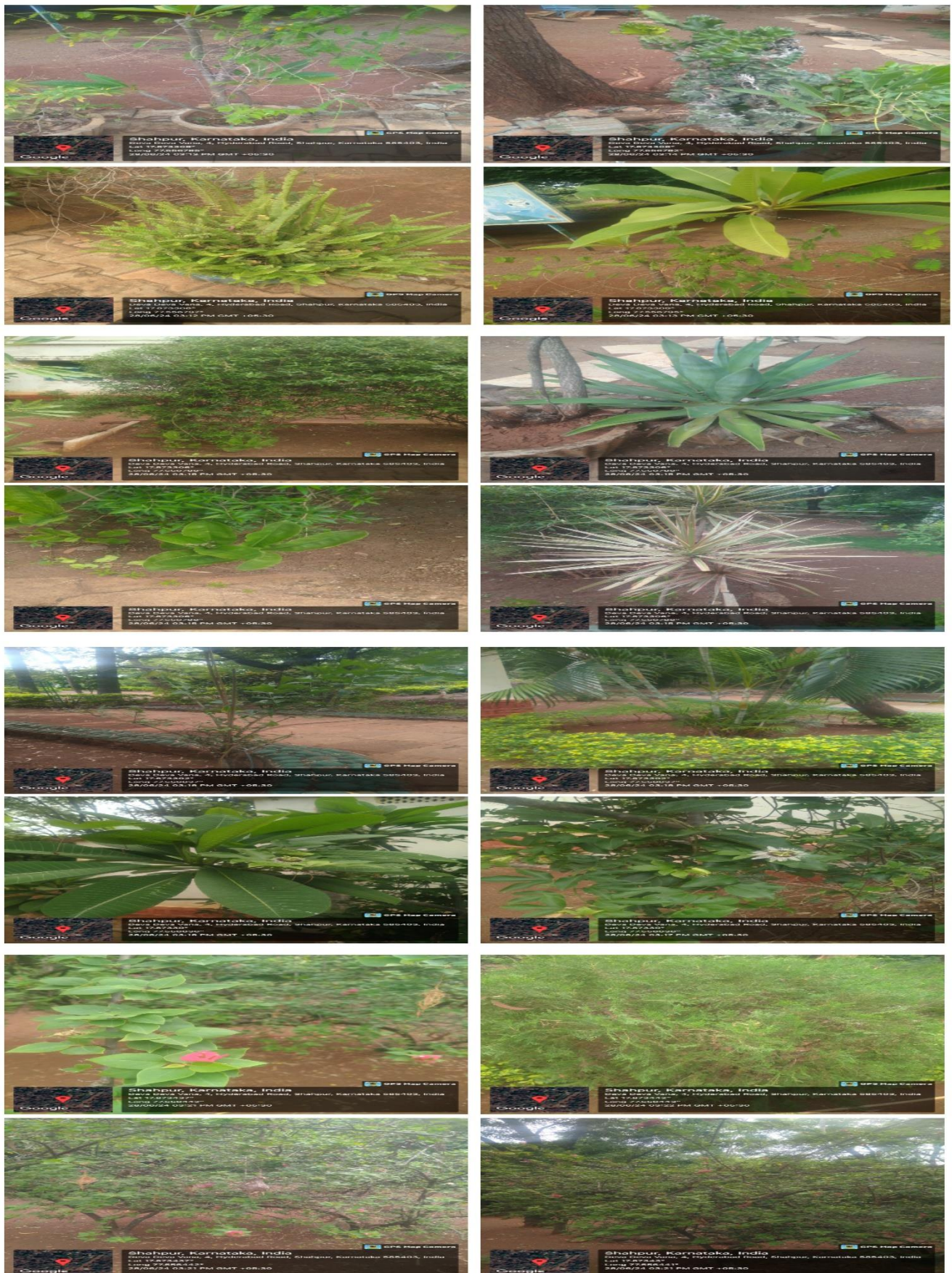
<i>Swietenia mahagoni</i> (L.)	Meliaceae	Timber
<i>Dalbergia latifolia</i> Roxb.	Leguminosae	Timber
<i>Sansevieria trifasciata</i>	Asparagaceae	Ornamental
<i>Terminalia arjuna</i>	Combretaceae	Medicinal, Timber

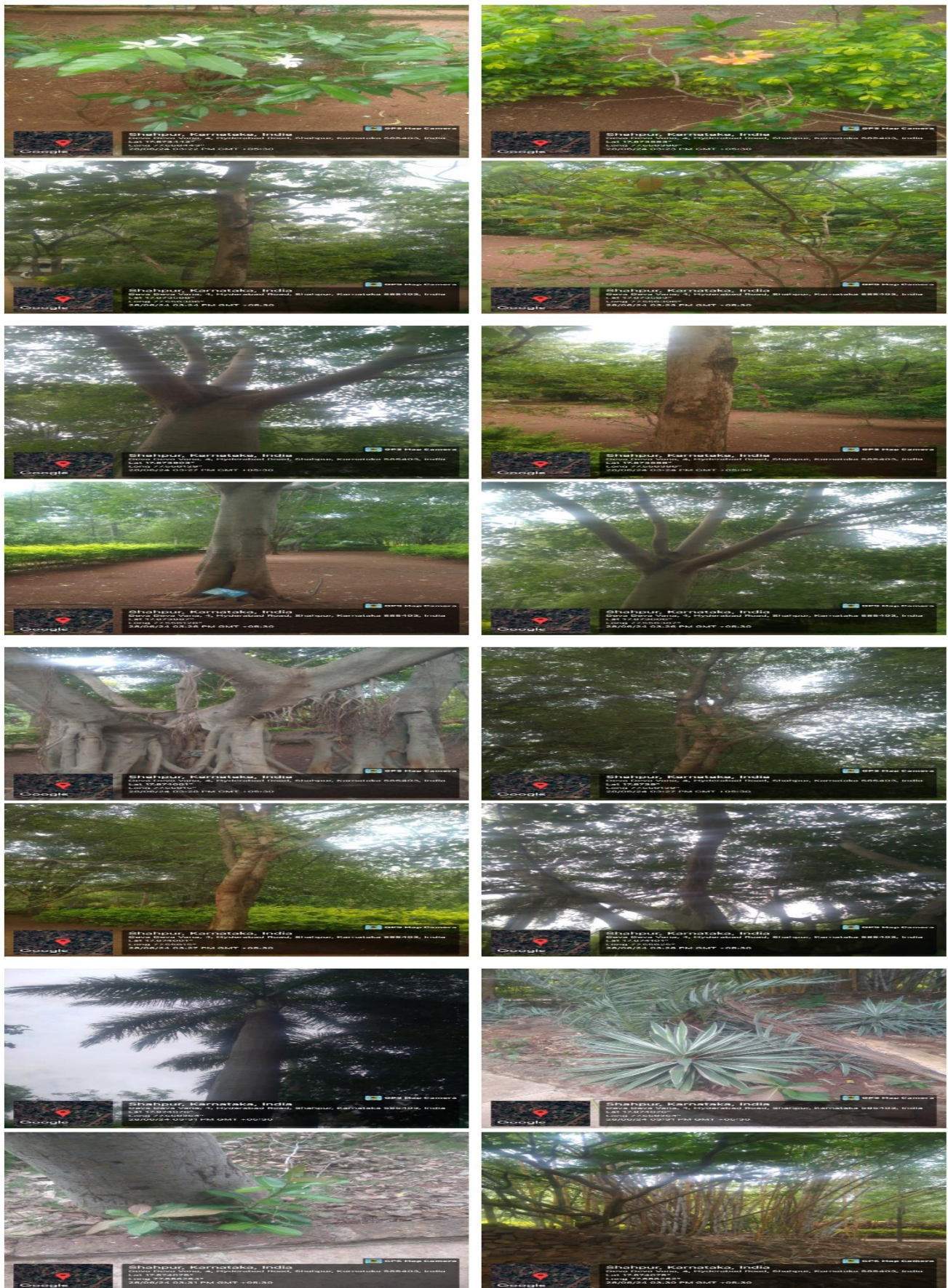
BOTANICAL NAME	FAMILY	USES
<i>Philodendron bipinnatifidum</i>	Araceae	Ornamental
<i>Centrosema pubescens</i>	Leguminosae	Forage, Green manure
<i>Pothos scandens</i> L.	Araceae	Medicinal
<i>Rhapis excels</i>	Arecaceae	Ornamental
<i>Homalomena rubescens</i>	Arecaceae	Ornamental
<i>Ficus benjamina</i> L.	Moraceae	Ornamental
<i>Dracaena surculosa</i> Lindl.	Asparagaceae	Ornamental
<i>Excoecaria cochinchinensis</i>	Euphorbiaceae	Ornamental
<i>Tradescantia spathacea</i>	Commelinaceae	Ornamental, Medicinal
<i>Zinnia elegans</i> Jacq.	Compositae	Ornamental
<i>Mirabilis jalapa</i> L.	Nyctaginaceae	Ornamental, Medicinal
<i>Cosmos sulphureus</i> Cav	Compositae	Ornamental
<i>Gerbera jamesonii</i> Bolus	Compositae	Ornamental
<i>Impatiens balsamina</i> L.	Balsaminaceae	Ornamental
<i>Turnera ulmifolia</i> L.	Passifloraceae	Medicinal
<i>Rudbeckia laciniata</i> L.	Compositae	Ornamental
<i>Caladium lindenii</i>	Araceae	Ornamental
<i>Andrographis paniculata</i>	Acanthaceae	Medicinal
<i>Chromolaena odorata</i>	Compositae	Medicinal
<i>Caladium bicolour</i>	Araceae	Ornamental
<i>Cynodon dactylon</i>	Poaceae	Medicinal
<i>Cyperus rotundus</i> L.	Cyperaceae	Medicinal
<i>Emilia sonchifolia</i> (L.)	Compositae	Medicinal
<i>Tabernaemontana divaricata</i> (L.)	Apocynaceae	Ornamental, Medicinal
<i>Opuntia ficus-indica</i> (L.) Mill.	Cactaceae	Ornamental
<i>Cycas revoluta</i> Thunb.	Cycadaceae	Ornamental, Medicinal
<i>Araucaria heterophylla</i>	Araucariaceae	Ornamental
<i>Thuja occidentalis</i> L.	Cupressaceae	Ornamental, Medicinal
<i>Cassia tora</i>	Fabaceae	Leaves, seeds
<i>Gloriosa superb</i>	Colchicaceae	Leaves, flowers
<i>Tectona grandis</i>	Lamiaceae	Teak
<i>Nerium oleander</i>	Apocynaceae	Flowers
<i>Hippeastrum vittatum</i>	Amaryllidaceae	Ornamental

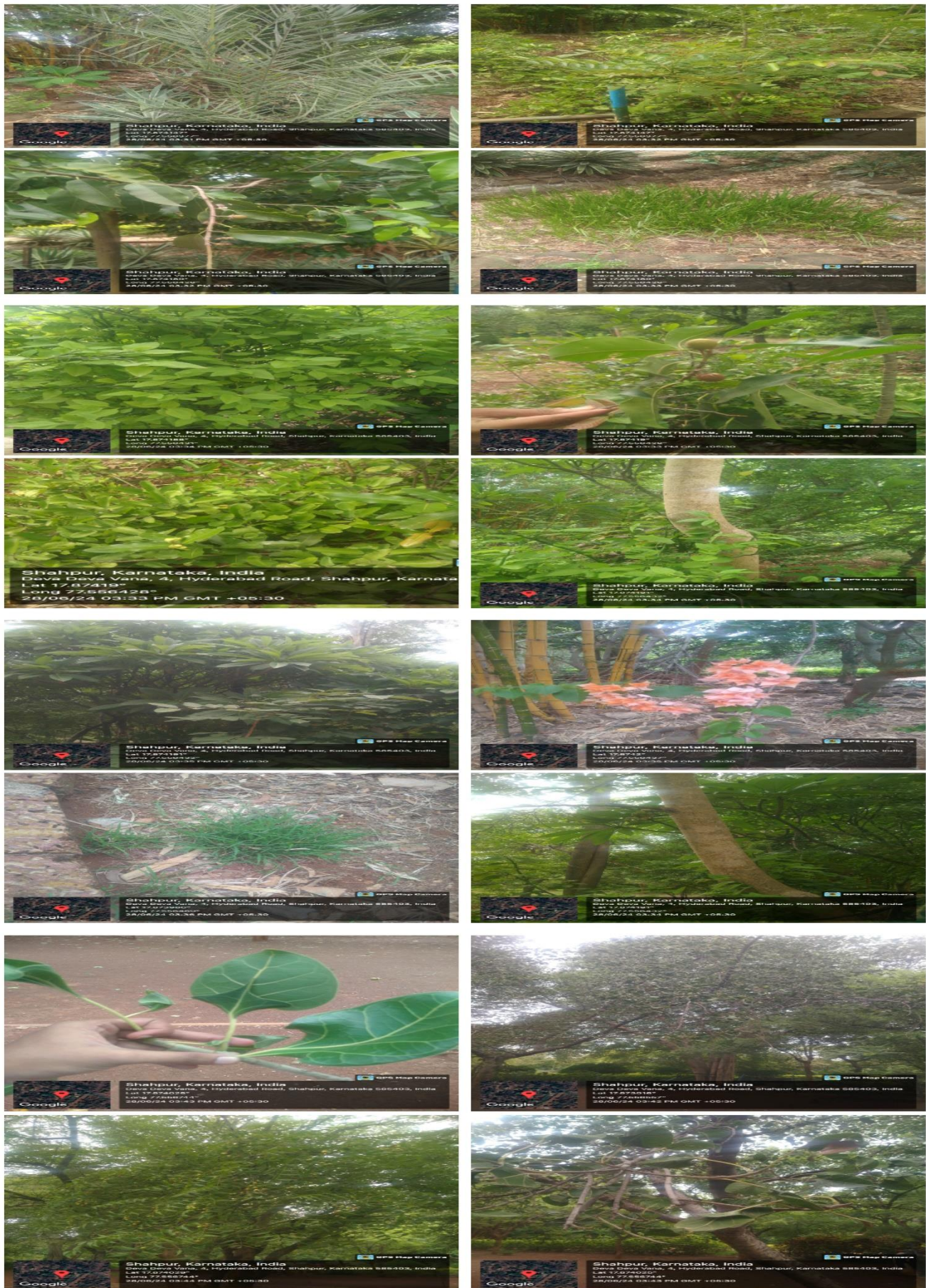
<i>Dracaena reflexa</i> Lam.	Asparagaceae	Ornamental
<i>Crotalaria retusa</i> L.	Leguminosae	Ornamental
<i>Ixora coccinea</i> L.	Rubiaceae	Medicinal, Ornamental
<i>Commelina diffusa</i> Burm. f.	Commelinaceae	Medicinal
<i>Piper longum</i> L.	Piperaceae	Medicinal
<i>Piper betle</i> L.	Piperaceae	Medicinal
BOTANICAL NAME	FAMILY	USES
<i>Aegle marmelos</i>	Rutaceae	Fruits, Leaves
<i>Acacia coleii</i>	Fabaceae	Leaves
<i>Euphorbia antiquorum</i>	Euphorbiaceae	Stem, Leaves
<i>Luffa acutangula</i>	Cucurbitaceae	Fruits, leaves
<i>Madhuca longifolia</i>	Sapotaceae	Flower
<i>Myristica fragrans</i>	Myristicaceae	Fruits
<i>Adhatoda vasica</i>	Acanthaceae	Leaves, Flowers
<i>Ziziphus mauritiana</i>	Rhamnaceae	Leaves, Fruits
<i>Heliconia psittacorum</i> L.	Heliconiaceae	Flowers
<i>Phyllanthus urinaria</i> L.	Phyllanthaceae	Medicinal
<i>Schefflera arboricola</i>	Araliaceae	Ornamental
<i>Lantana camara</i> L.	Verbenaceae	Ornamental, Medicinal
<i>Ficus religiosa</i> L.	Moraceae	Medicinal, Wood
<i>Clerodendrum speciosum</i>	Lamiaceae	Ornamental
<i>Vanda testacea</i>	Orchidaceae	Medicinal
<i>Caesalpinia coriaria</i>	Leguminosae	Ornamental
<i>Xylia xylocarpa</i>	Leguminosae	Ornamental, Medicinal
<i>Hemigraphis colorata</i>	Acanthaceae	Ornamental, Medicinal
<i>Begonia malabarica</i> Lam.	Begoniaceae	Ornamental, Medicinal
<i>Antigonon leptopus</i>	Polygonaceae	Ornamental, Medicinal
<i>Allamanda cathartica</i> L.	Apocynaceae	Ornamental, Medicinal

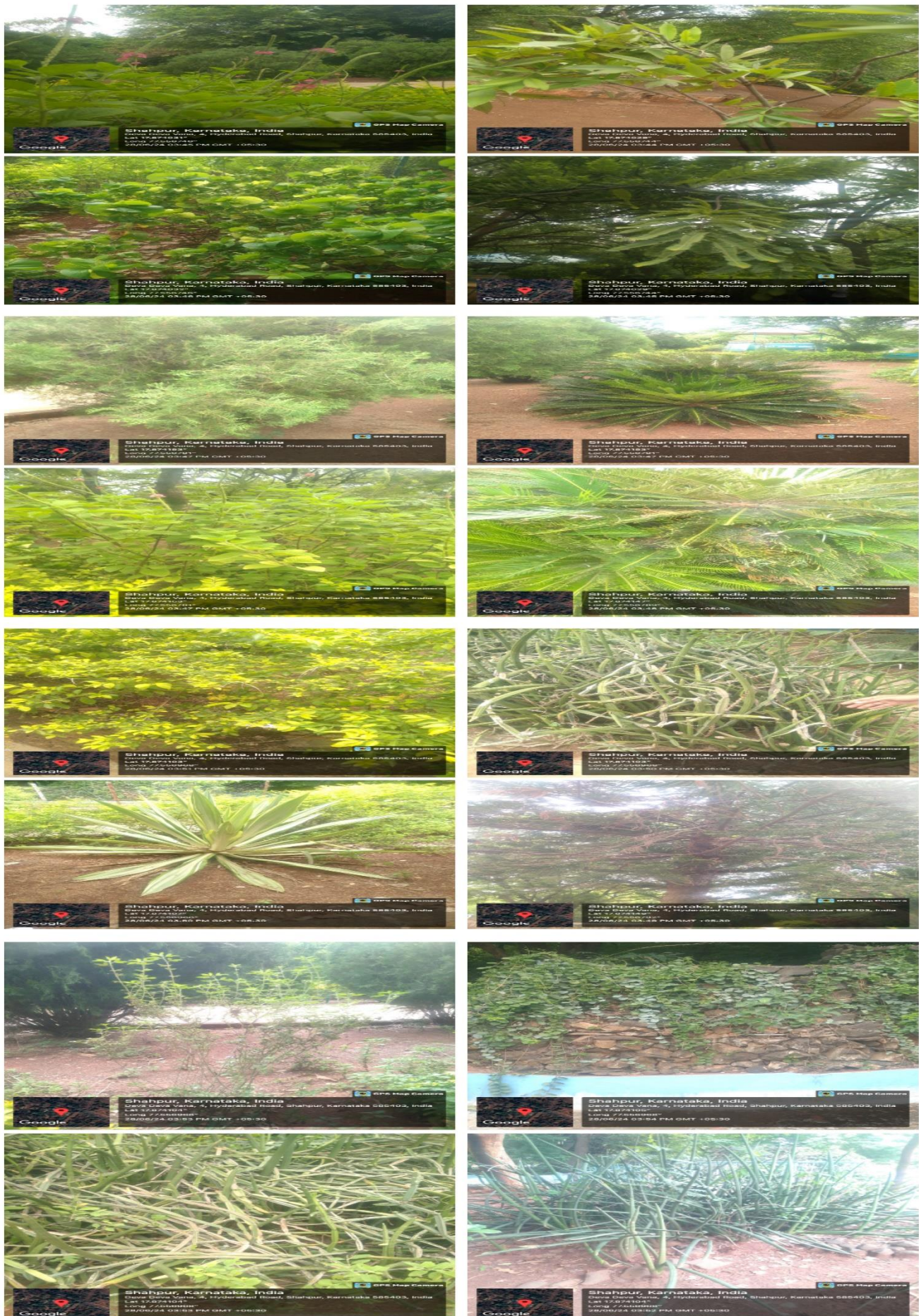


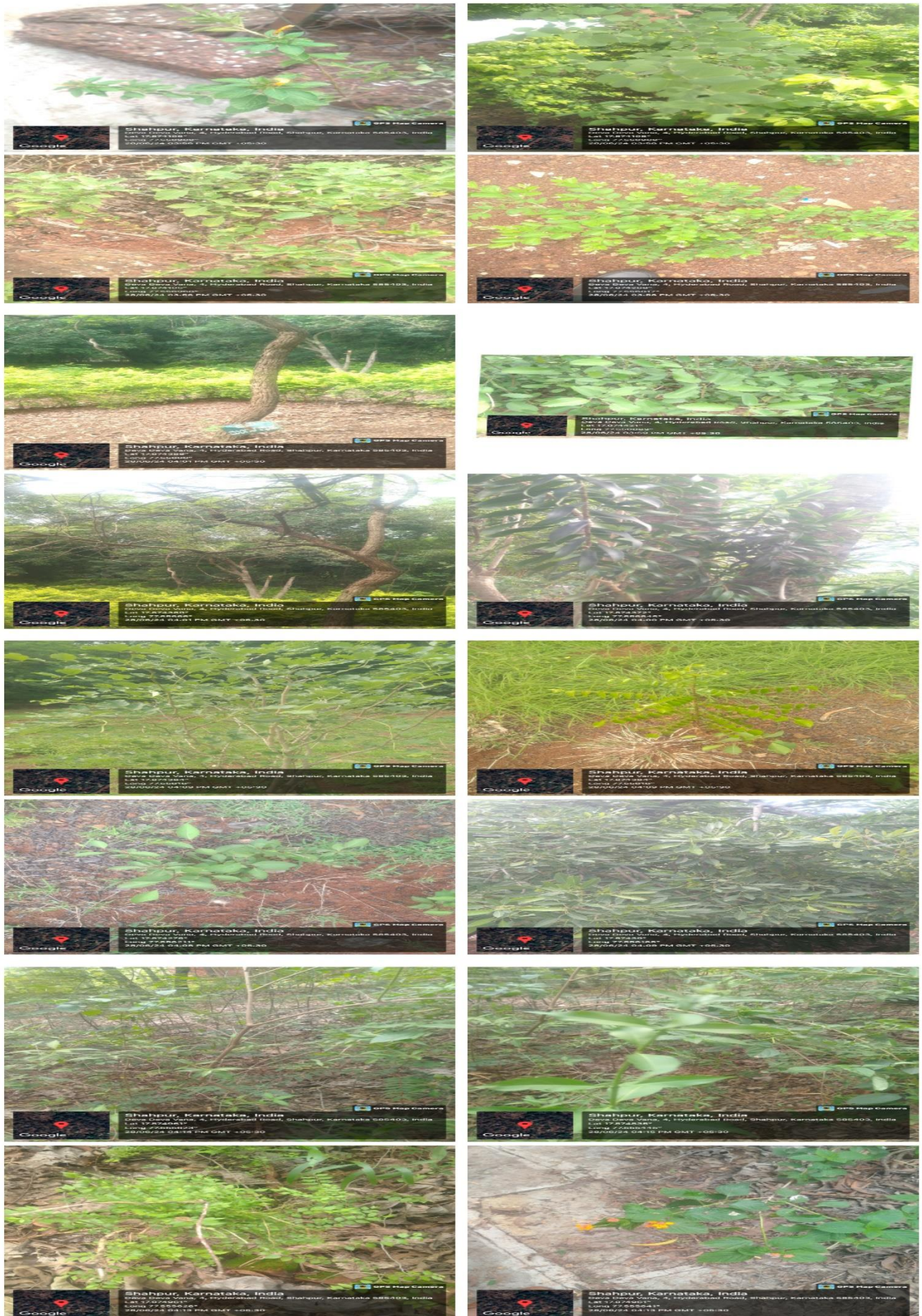


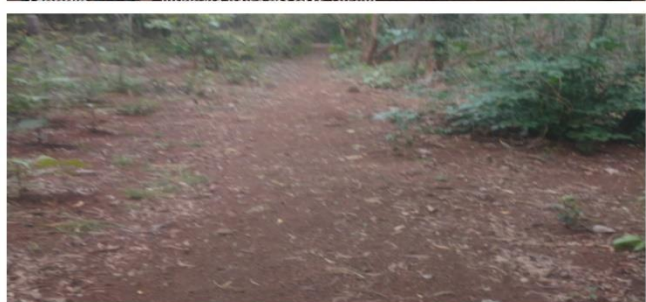
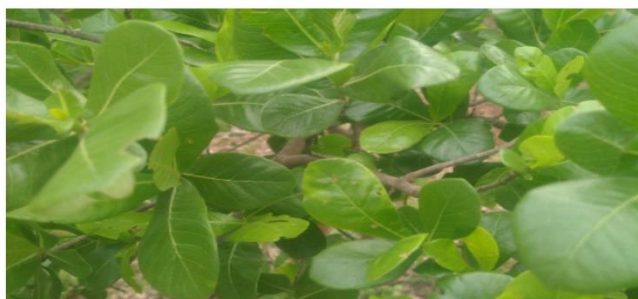


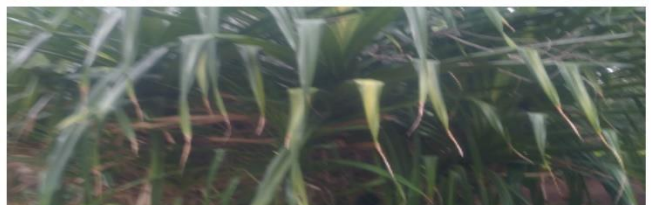


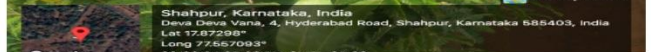
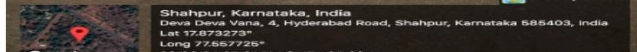
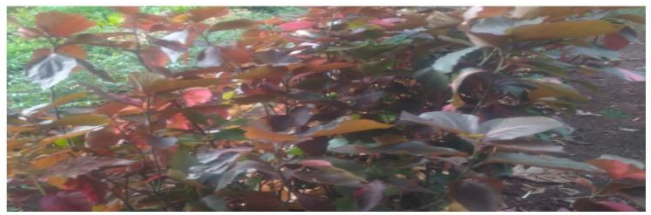












IV. CONCLUSION

This type of documentation work were conducted in Bellary, Kodagu, Uttar Kannada, Chikmagalur, Tumkur, Districts However in Bidar district no detailed documentation of Medicinal plants of Deva Deva vana Botanical garden is not done yet this detailed documentation represents a contribution to the existing knowledge. The documentation of such knowledge plays an important role in forming the health policies and for the extraction and characterization of Bioactive novel compounds so that people of the same and other regions can make use of it and we will get the information about plant diversity richness and conservation.

V. REFERENCES

- [1]. Seetharam YN, Kotresh K, Upalaonkar SB. Gulbarga University; 2000. Flora of Gulbarga district.
- [2]. Prashanthkumar P, Vidyasagar GM. Traditional knowledge on medicinal plants used for the treatment of skin disease in Bidar district, karnataka. India J Tradit Knowl. 2008;7(2):273-276.
- [3]. Panda T. Preliminary Study of Ethno medicinal Plants used to cure different disease in coastal district of Orissa, India. Brit J Pharmacol Toxicol. 2010;1(2):67-71.
- [4]. Madhu V, Yarra R. Investigations on ethno-medicinal plants used to cure skin diseases in Adilabad district, Andhra Pradesh, India. Int J Pharm Life Sci. 2011;2(5):742-745.
- [5]. Siddalinga MSM, Vidyasagar GM. Medicinal plants used in the treatment of gastrointestinal disorder in Bellary district, Karnataka, India. Indian J Tradit Knowl. 2013;12(2):321-325.
- [6]. Indira K. An ethno botanical Study of the Kodavas and other tribes of Kodagu district, Karnataka. Bull Bot Surv India. 1995;37(1-4):100-116.
- [7]. Bhandari MJ, Chandrashekar KR, Kaveriappa KM. medicinal ethno botany of siddis of Uttar Kannada district, Karnataka. J Ethno Pharmacol. 1995;47:149.
- [8]. Bhandari MJ, Chandrashekar KR, Kaveriappa KM. Ethno botany of Gowlis of Uttar Kannada district, India. J Econ Taxon Bot. 1995;12:244.
- [9]. Harsha VH, Hebbar SS, Sripathi V, Hegade GR. Ethnomedico botany of Uttar Kannada district of Karnataka. India J Ethnobot. 2003;84:37.
- [10]. Gopakumar K, Vijayalaxmi B, Shanta TR, Yoganarasimhan SN. Plants used in the Ayurveda from Chikmagalur district. J Econ Taxon Bot. 1991;15:391.
- [11]. Yoganarasimhan SN, Togunashi VS, Keshavamurthy KR, Govindiah medicinal Botany of Tumkur district in Karnataka. India J Econ Taxon Bot. 1991;15:379.
- [12]. Ghatapanadi SR, Johnson N, Rajasab AH. Documentation of folk knowledge on medicinal plants of Gulbarga district, Karnataka. Indian
- [13]. Kalmath S.V., et al. (2012) Existancy and Survey of Medicinal Plants of Bidar District, Karnataka (India). World Research Journal of Medicinal & Aromatic Plants, ISSN: 2278-9863 & E-ISSN: 2278-9871, Volume 1, Issue 1, pp.-14-21.