

Work Report
On
“SURVEY AND AWARENESS PROGRAMME ON
MEDICINAL PLANTS IN SUKHASAN RESERVE
FOREST, ATHAGARH FOREST DIVISION, CUTTACK,
ODISHA”
in association with
Athagarh Forest Division, Forest and Environment
Department, Government of Odisha, Odisha.



**AMBIKA PRASAD
RESEARCH FOUNDATION**

INTRODUCTION

Odisha lies in the Eastern part of India with various landscapes including coastal plains, flood plains, plateaus, hills and uplands with diverse ecological system. The riverine ecosystem plays an important role as 42% of the state covers the catchment areas of the three major rivers viz. Mahanadi, Brahmani and Baitarani. The forest cover about 33% of the total geographical area with diverse forest ecosystem including tropical semi-evergreen, sub-tropical broad leaved hill forest, littoral swamp forest, tropical moist deciduous forest and tropical dry deciduous forest. The Reserved forest represents about 47% of the total forest and the protected forest represents about 52% of the total forest area of the state. The state possesses 2 National Parks, 1 Biosphere Reserve, 18 Wildlife Sanctuary. The state is tremendously rich in floral and Faunal species. It is a home of about 2900 plant species including 726 species of flowering plants belonging to 496 genera and 120 families. The most dominant family being Fabaceae followed by Poaceae and Cyperaceae. It also acquires 120 orchid species. The state possesses 94 mangrove species out of which 30 are true mangrove species which makes the state the second largest mangrove ecosystem in India. The State is rich with *Tectona grandis*, *Shorea robusta*, *Dalbergia sisoo* and Bamboo. *Pterocarpus marsupium* and *Diospyros melanoxylon* are some of the important flora that are of great demand in the market. *Diospyros melanoxylon* has a high revenue for the state. Bamboo forest is distributed mainly in the western Odisha.

Sukhasan reserve forest comes under Athagarh Forest Division of the state. The forest covers a large area in Athagarh which have large number of floras including 90 genus and 107 species. Laterite semi-evergreen forest is prevalent in this part of the State. The most common flora of this region include *Ageratum conyzoides*, *Terminalia bellerica*, *Terminalia chebula*, *Anacardium occidentale*, *Asparagus racemosus*, *Bambusa arundinacea*, *Bauhinia variegata*, *Bombax ceiba*, *Breynia retusa*, *Cassia fistula*, *Crotolaria pallid*, *Dioscorea oppositifolia*, *Gloriosa superba* etc. These plant species are also found to be widely used by the local inhabitants as medicinal plants in various ways

SURVEY WORK

Ambika Prasad Research Foundation (APRF) undertook a survey of the Sukhasan Reserve Forest starting from March 2020. Earlier surveys have been made by the team of APRF around the catchment areas of Mahanadi river since January 2019 and recently a survey on the wetland flora and riverine flora of Mahanadi river areas was made and documented. Some common flora include *Polygonum barbatum*, *Lindernia crustacea*, *Aeschynomene indica*, *Aerva lanata*, *Utricularia caerulea*, *Utricularia aurea*, etc. Survey of the Sukhasan forest continued till August 2020 and found 109 floral species diversity and its uses which is given in the table 1 below.

Table 1: Floral diversity and its uses in Sukhasan Reserve Forest

Botanical Name	Family	Common Name	Uses
<i>Abrus precatorius</i>	Fabaceae	Kaincha	Seed powder given to cattle to treat liver disorder.
<i>Acacia auriculiformis</i>	Fabaceae	Ear-pod Wattle	A decoction of root is used to treat aches and pains.
<i>Acacia catechu</i>	Mimosaceae	Khaira	Cutch obtained from heartwood is an important ingredient of Paan.
<i>Acacia leucophloea</i>	Mimosaceae	Gohira	Wood used as timber and as fuel.
<i>Acacia nilotica</i>	Mimosaceae	Babool	Leaf extract used in Diarrhoea, gum eaten during stomach disorder.
<i>Acyranthes aspera</i>	Amaranthaceae	Apamaranga	A very popular weed used during delivery of woman. Root used in smallpox.
<i>Aegle marmelos</i>	Rutaceae	Belo	Fruits pulp eaten in summer. Leaf is used to prevent Gastritis.
<i>Aeschynomene indica</i>	Fabaceae	Surlo	The plant is gathered from the wild for local uses as a food, medicine and source of material for craftwork.
<i>Aganosma caryophylla</i>	Apocynaceae	Malati	The leaves paste is used during pitta disease.
<i>Ageratum conyzoides</i>	Compositae	Pokasunga	Leaf used in heal cuts, wounds and also used in skin disease.
<i>Alangium salvifolium</i>	Alangiaceae	Ankula	Fruits are edible. Root applied on Paralysis, in Malaria fever.
<i>Albizia lebbek</i>	Fabaceae	Kalasiris	Leaf paste used in stomach ache.
<i>Alstonia scholaris</i>	Apocynaceae	Chatiana	This plant is a pollution controller. Leaf used in swelling of body.
<i>Alternanthera sessilis</i>	Amaranthaceae	Madaranga sag	Leaf cooked and eaten as vegetables.

<i>Ammannia baccifera</i>	Lythraceae	Kuranti	The fresh bruised leaves have been used in skin disease.
<i>Amorphophallus bulbifer</i>	Araceae	Dhala olo	Corm and leaf cooked and eaten as vegetable.
<i>Anacardium occidentale</i>	Anacardiaceae	Kaju	Fruits are edible. Roasted seed nuts eaten.
<i>Andrographis paniculata</i>	Acanthaceae	Bhuin nimbi	Whole plant is used as a popular medicine for skin disease and especially in Diabetes.
<i>Annona squamosa</i>	Annonaceae	Aata	Fruits are edible.
<i>Anogeissus latifolia</i>	Combretaceae	Dhaura	Gum boiled and eaten in stomach disorder.
<i>Antigonon leptopus</i>	Polygonaceae	Snehalata	The plant has various bioactivities such as Antimicrobial, Antioxidant, Inflammatory activities.
<i>Argemone mexicana</i>	Papaveraceae	Odisamari	Seed paste is applied in skin irritation.
<i>Artocarpus heterophyllus</i>	Moraceae	Panasa	Fruits are edible.
<i>Asparagus racemosus</i>	Asparagaceae	Satabari	Root extract is used in purifying blood, given in Diarrhea and stomach troubles.
<i>Azadiracta indica</i>	Meliaceae	Nimba	Leaf, stem and bark used during skin irritation.
<i>Bambusa arundinacea</i>	Poaceae	Kanta baunsa	Young shoots called as karadi cooked as vegetable and eaten.
<i>Barringtonia acutangula</i>	Lecythidaceae	Hingla	Seed powder is used in liver troubles.
<i>Bauhinia acuminata</i>	Fabaceae	Sweta kanchana	A decoction of root taken to cure cough.
<i>Bauhinia purpurea</i>	Fabaceae	Barada	Full plant is cooked as green vegetable and eaten. It is also a ornamental flower.
<i>Bauhinia vahlii</i>	Fabaceae	Siali lata	Ripe fruit toasted. Stem and bark are used to make rope
<i>Bauhinia variegata</i>	Fabaceae	Kanchana	Young leaf is cooked and eaten as vegetable.
<i>Benkara malbarica</i>	Rubiaceae	Firiki kanta	Wood is strong and durable. Ripen fruits are edible.
<i>Bixa oreilana</i>	Bixaceae	kumkum	Root used to colour and test of saffron to meat. Seeds are red and used in Lord Jagannath sindur.
<i>Bombax ceiba</i>	Malvaceae	Simili	Root used in Spermatorrhoea used as a tonic.
<i>Breynia retusa</i>	Phyllanthaceae	Rakta trichuli	Leaf paste is used in treatment of Diarrhoea.
<i>Breynia vitis-idaea</i>	Phyllanthaceae	jajhangi	Leaf paste is used for a good memory.
<i>Butea monosperma</i>	Fabaceae	Palasash	Flower juice is used to treatment of eye disease.

<i>Calophyllum inophyllum</i>	Calophyllaceae	Polanga	The latex and bark are applied externally on wounds.
<i>Calotropis gigantea</i>	Apocynaceae	Arakha	Milky latex applied for relieve headache. A decoction of root is applied for Rheumatic pain.
<i>Canna indica</i>	Cannaceae	Kedar	A decoction of fresh rhizome is used as antipyretic, gonorrhea and woman with irregular menses.
<i>Carrisa spinarum</i>	Apocynaceae	Khair koli	Fruits are edible.
<i>Cassia fistula</i>	Fabaceae	Sunari	A decoction of root is used to treatment of Gonorrhea, Abdominal pain.
<i>Cassia siamea</i>	Fabaceae	Chakunda	It is used for Ornamentation on instrument like Guitars. The leaves, tender pot and seeds are edible.
<i>Cassia tora</i>	Fabaceae	Dhala chakunda	In traditionally the root is used by tribal people Daunria for protection from evil spirit.
<i>Cassytha filiformis</i>	Lauraceae	Akashbelo	Whole plant is given to Cow for milk production and also used for treatment of Diarrhea in Cow.
<i>Ceiba pentandra</i>	Malvaceae	Sweta simuli	A decoction of bark is used as a diuretic and to treat headache as well as Diabetes
<i>Celosia argentea</i>	Cleomaceae	Mayurachulia	Root paste is applied to cure boils and a decoction of leaf is used to cure Headache.
<i>Cleistanthus collinus</i>	Euphorbiaceae	Karada	Fruits are poisonous. The plant has antiseptic, antifungal and insecticidal property.
<i>Cleome viscosea</i>	Ranunculaceae	Bano soris	Leaf juice is applied on cuts.
<i>Clerodendrum viscosum</i>	Verbenaceae	Kumuti	Root paste is a best way for the treatment of Migraine.
<i>Coffee arabica</i>	Rubiaceae	Coffee	Coffee is widely used for flavoring.
<i>Combrectum roxburghii</i>	Araceae	Atundi	A leaf paste is used to cure Diarrhea and Eczema. The stem is used for teeth treatment.
<i>Commelina benghalensis</i>	Commelinaceae	Kanasira	Leaf is cooked and eaten as vegetable.
<i>Costus speciosus</i>	Zingiberaceae	Gai gobara	The leaf paste is used in Stomach ache and inflorescence used in vomiting.
<i>Crinum asiaticum</i>	Amaryllidoidae	Hatikanda	A fresh leaf used to treat sprains, fractures etc.
<i>Crotolaria pallida</i>	Fabaceae	Jhunu jhunuka	A decoction of root is taken orally for cure of Paralysis.

<i>Curculigo orchiodies</i>	Hypoxidaceae	Talo muli	The root is used for treatment of Piles. Root powder is used to cure Tonsillitis.
<i>Curcuma angustifolia</i>	Zingiberaceae	Palua	Tubers are edible. Rhizomes is rich amount of starch.
<i>Cuscuta reflexa</i>	Cuscutaceae	Nirmuli	The whole plant is used internally in treating protracted fever and externally in the treatment of body pains.
<i>Dalbergia sisso</i>	Fabaceae	Sissu	Timber used to make furniture, Musical instruments etc.
<i>Datura starmonium</i>	Solanaceae	Dudura	The seeds of this plant have analgesic, anthelmintic and anti-inflammatory used in treatment of stomach and intestinal pain.
<i>Delonix regia</i>	Caesalpiniaceae	Krushnachuda	The plant has Anti-diabetic activity, Anti-bacterial activity, Anty-diarrheal activity.
<i>Dioscorea alata</i>	Dioscoreaceae	Khamba alu	Tuber is edible and eaten as vegetable.
<i>Dioscorea bulbifer</i>	Dioscoreaceae	Pita alu	Leaf rubbed on skin to cure Itching.
<i>Dioscorea hispida</i>	Dioscoreaceae	Bano alu	Various plant parts used in sores, boils. In India tubers used for birth control.
<i>Dioscorea oppositifolia</i>	Dioscoreaceae	Pani alu	Tuber used as a vegetable.
<i>Dioscorea pentaphylla</i>	Dioscoreaceae	Karba	Tuber eaten as vegetable and the paste is used to heal bone fracture
<i>Diplocyclos palmatus</i>	Cucurbitaceae	Sibalingi	Root extract is used to induce fertility of woman.
<i>Eichhornia crassipes</i>	Pontederiaceae	Common water hyacinth	It is a pollution indicator.
<i>Ficus benghalensis</i>	Moraceae	Bara	Dried leaf brunt ash applied to heal ulcer of children head.
<i>Ficus hispida</i>	Moraceae	Kharsana	Milky latex applied on cuts, cure Diarrhea and Dysentery.
<i>Ficus recemosa</i>	Moraceae	Pani dimiri	Fruits are edible and paste is applied on brunt skin.
<i>Ficus virens</i>	Moraceae	Jari	Bark used in washing ulcer.
<i>Gardenia latifolia</i>	Rubiaceae	Indian boxwood	A decoction of root is used excess bleeding during menstrual cycle. Fruits are edible.
<i>Gloriosa superba</i>	Colchicaceae	Agnisikha	Root extract applied on head to check hair-fall, given as nasal drop to reduce poisonous effect of snake bite.
<i>Gmelina arborea</i>	Lamiaceae	Gambhari	The wood is raw material of furniture. Fruits are edible and used to cure Dysentery.

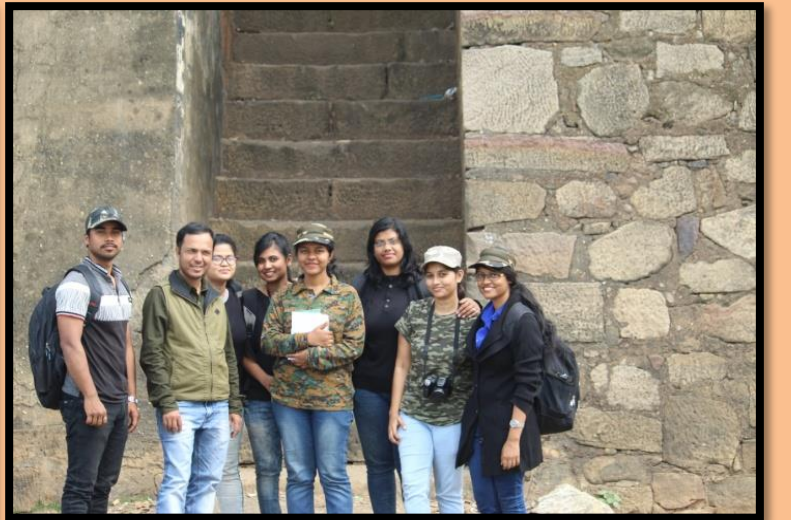
<i>Helicteres isora</i>	Malvaceae	Mudimudica	Root paste is used in Hydrocele swelling.
<i>Heliotropium indicum</i>	Boraginaceae	Hatisundha	Full plant is used to cure boils.
<i>Lantana camara</i>	Verbenaceae	Nagaoeiri	A decoction of leaf is used to reduce blood pressure. Leaf paste is used in cuts and boils.
<i>Lindernia crustacea</i>	Scrophulariaceae	Khetakura	Juice is given as ca tonic after child birth.
<i>Lygodium flexuosum</i>	Lygodaceae	Indrajai	Root paste is used to cure skin disease and Dysmenorrhoea.
<i>Madhuca longifolia</i>	Sapotaceae	Mahula	This plant fruit is the main ingredient of Country liquor in Odisha. Full plant decoction cure Piles.
<i>Mangifera indica</i>	Anacardiaceae	Amba	Fruits are edible. Leaf extraction taken to cure Dysentery.
<i>Monochoria vaginalis</i>	Pontederiaceae	Pickrelweed	Leaves and young stem cooked and used as a vegetable.
<i>Narangi crenulata</i>	Rutaceae	Behenta	Stem-bark extract relieves headache of woman.
<i>Pergularia daemia</i>	Apocynaceae	Utrudi	Root fumes inhaled to cure migrate.
<i>Phyla nodiflora</i>	Verbenaceae	Jalapippali	Plant decoction is given in Uraema.
<i>Phyllanthus emblica</i>	Phyllanthaceae	Amla	Fruits are edible. Seed powder taken in Leucorrhoea. Root powder cure Blood Dysentery.
<i>Polyalthia longifolia</i>	Annonaceae	Debadaru	The plant is used as an antipyretic agent in indigenous system of medicine.
<i>Polycarpaea corymbosa</i>	Caryophyllaceae	Okharadi	The plant is used in reducing fever, anti-inflammatory.
<i>Polygonum barbatum</i>	Polygonaceae	Dhainsula	Green plant used as vegetable.
<i>Pongamia pinnata</i>	Fabaceae	Karanja	Tribal people used their stem as tooth brush. Seed oil is used to cure skin disease.
<i>Portulaca oleracea</i>	Portulacaceae	Bada balablua	It acts as an antiseptic agent.
<i>Ricinus communis</i>	Euphorbiaceae	Jada	Seed yielding oil. Seed paste applied on rheumatic and also used as a veterinary medicine.
<i>Saccharum spontaneum</i>	Poaceae	Kashatandi	It binds the soil and the main raw material for paper manufacture industry.
<i>Saraca asoca</i>	Fabaceae	Ashoka	Stem-bark is used to cure Menstrual disorders.
<i>Shorea robusta</i>	Dipterocarpaceae	Sal	This plant has been medicinally used from thousand year to cure Leucorrhoea, Gonorrhea, Skin disorder, wounds etc.

<i>Sida cordata</i>	Malvaceae	Bisiripi	Leaf paste especially applied on wounds of bear attack.
<i>Sida cordifolia</i>	Malvaceae	Bajramuli	Leaf juice is applied on Snake bite and Scorpion bite.
<i>Simarouba glauca</i>	Simaroubaceae		The leaves and bark are used in treatment of Malaria, fevers and Dysentery.
<i>Smilax zeylanica</i>	Smilacaceae	Muturi	It is the food plants of elephant. Root paste is taken to regularize Menstruation cycle.
<i>Spathodea campanulata</i>	Bignoniaceae	Kanakaturi	Extract of bark, leaves and Flower used to treat Malaria, HIV, Diabetes, Dysentery, etc.
<i>Sterculia foetida</i>	Malvaceae	Junglebadam	Seed oil is used externally to treat Itches and other Skin disease.
<i>Tamarindus indica</i>	Fabaceae	Tentuli	Fruits are edible. Root of seedling given by tribal priest for easy delivery.
<i>Tectona grandis</i>	Lamiaceae	Saguan	Wood is used to ship-building, construction work, Furniture etc.
<i>Terminalia arjuna</i>	Combretaceae	Arjuna	The dry bark of the tree is used to cure joint pain.
<i>Terminalia bellerica</i>	Combretaceae	Bahada	Seeds are edible. The dry fruits powder is used as a tonic in Weakness and also cure Diarrhea
<i>Terminalia chebula</i>	Combretaceae	Harida	Fruit is used to make Ayurvedic Drug TRIPHOLA.
<i>Tinospora cordifolia</i>	Menispermaceae	Guluchi	Stem powder is used as a tonic also used is an ingredient DHASHAMULA. Leaf juice taken in Diabetes.

FIELD SURVEY IN SUKHASAN RESERVE FOREST



FIELD SURVEY NEAR MAHANADI RIVER AREAS



SOME COMMON MEDICINAL PLANTS OF SURVEY AREA



Abrus precatorius



Acacia catechu



Acacia nilotica



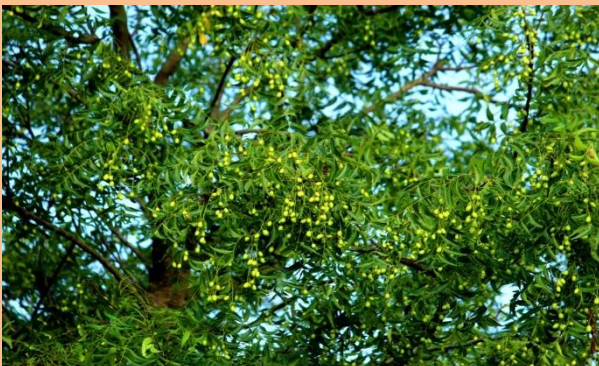
Aganosma caryophylla



Alternanthera sessilis



Argemone Mexicana



Azadirachta indica



Barringtonia acutangula



Breynia retusa



Breynia vitis-idaea



Butea superba



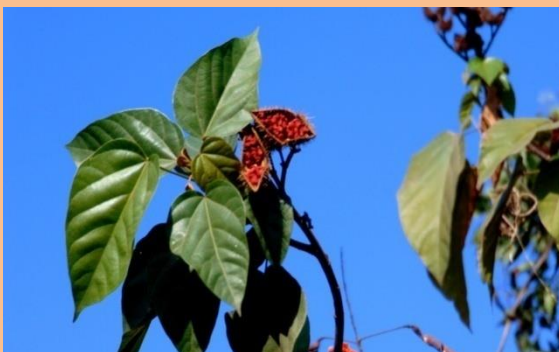
Caesalpinia pulcherrima



Callophylum inophyllum



Carissa spinarum



Bixa orellana



Bombax ceiba



Cassia fistula



Ceiba pentandra



Cleistanthus collinus



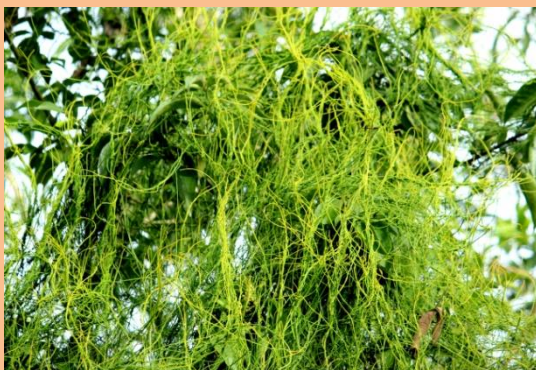
Clerodendrum viscosum



Costus speciosus



Crotolaria pallida



Cuscuta reflexa



Dalbergia sissoo



Datura stramonium



Delonix regia



Dilenia indica



Ficus benghalensis



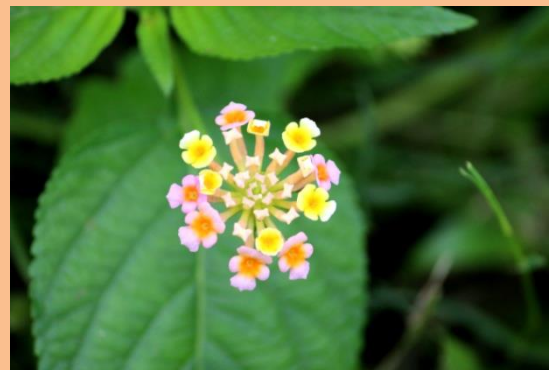
Gardenia latifolia



Helicteres isora



Hugonia mystax



Lantana camara



Cardiospermum halicacabum



Cucumis melo



Eichhornia crassipes



Monochoria vaginalis



Spathodea campanulata



Simarouba glauca



Terminlia bellirica



Terminalia arjuna



Bauhinia acuminata



Aeschynomene indica



Crinum asiaticum



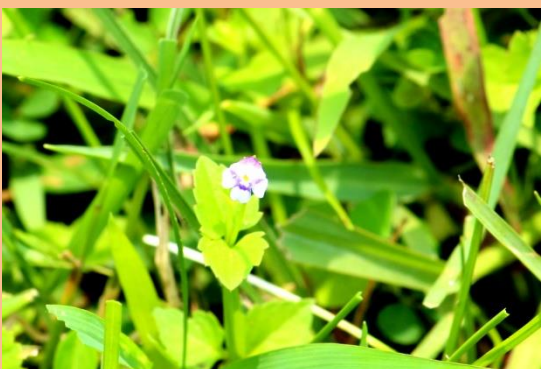
Polycarpaea corymbosa



Sida cordifolia



Phyla nodiflora



Lindernia crustacea



Gloriosa superba



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