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Distribution and availability of plant species in Kokilabari reserve forest of Baksa district, Assam, India

Merry Choudhury

Abstract

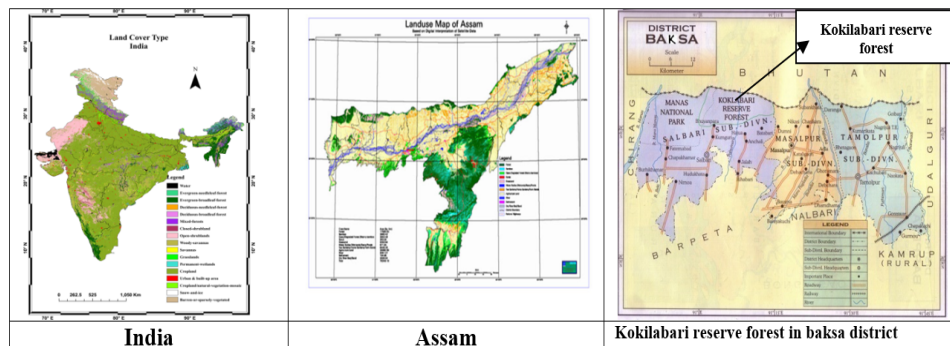
Kokilabari Reserve Forest is located north-western part of Baksa district under the Manas National Park division with an area of 77.59 sq. km. It covers the Bhuyapara ranges of Manas National Park highly rich in plant diversity. A local N.G.O., Manas Maozigendri Ecotourism Society that works for Conservation of these part of Manas national Park, which cover the all kokilabari reserve forest. A study was carried to understand the distribution and availability of plant species and their varieties in Kokilabari Reserve forest. Dominant plant species of the study area are *Michelia champaca*, *Diospyros embryopteris*, *Michelia oblonga*, *Flacourtia cataphracta.*, *Mangifera sylvatica*, *Hydnocarpus kurzii*, *Tectona grandis*, *Dillenia indica*, *Acacia catechu*, *Dillenia pentagyna*, *Baccaurea ramiflora* *Tinospora cordifolia*; *Grewia hirsute*; *Natsiatum herpeticum*, *Physalis minima*; *Scoparia dulcis*; *Hyptis suaveolens*, *Solanum xanthocarpum*; *Clerodendrum viscosum*; *Lantana camera*; *Mimosa pudica*; *Cassia tora*, *Imperata cylindrica*; *Arundo donax.*; *Cynodon dactylon*.

Keywords: Reserve forest, Diversity, Plant Distribution, conservation.

Introduction

The northern part of Nalbari, Barpeta, Kamrup, and Darang districts is presently demarcate the land area of Baksa district of Assam to give effect to the Bodoland territorial Council (BTC) accord signed on 10th February 2003. Kokilabari Reserve Forest (KRF) is one of the most important reserve forests in the Baksa district having mixed natural vegetation. The reserve forest area is admixture of foothills and plain land cove the total area of 77.59 sq. km. Vegetation have been observed in KRF which are mainly Evergreen and Semi-evergreen forest, Moist mixed deciduous forest, Shrubs, climbers, herbs, Scrubs and Grasslands. All these types of vegetation support a good diversity of plant species in different location of that area. It is located between 91° 05' E to 91° 15' E latitude and 26° 45' N to 26° 58' longitude and it bounded by International border of Bhutan in the north, important place like kumguri, hajua, Batabari Reserve Forest to the south, some thickly populated village like Nikasi, Dumni in the east and Manas Reserve Forest in the west. The climatic condition of the area is warm and humid. Maximum temperature 36 °C and minimum temperature is 6 °C, respectively with annual rainfall ranges between 1000 mm to 2500 mm and over 80% of average Relative Humidity (ARSEC 1990) [1].

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Materials and Method

Field survey has been carried out to collect the plant specimen sample from the reserve forest area during the period 2011 – 2013 using the quadrat and transect method. Around 235 plant species were collected through field survey which belongs to 96 families with 195 genera. The survey was conducted at regular interval covering four seasons namely, pre-monsoon, monsoon, post-monsoon and winter of the year. Specimens were processed and prepared Herbarium sheets following the methods of Jain & Rao (1977) [7] and identified with the help of relevant literature namely Hooker (1872-1897) [6], Kanjilal *et al.* (1934-1940) [12], Haridasan & Rao (1985, 1987) [5] and Chowdhury (2005) [3]. All collected specimens were identified with the help of previously identified specimens GUBH department of botany G.U. and with relevant literature. Spatial context of forest cover has been analyzed based on satellite imagery Landsat 5 (Oct 86 and Apr 87) and from IRS ID LISS III (27 Dec. 2008).

Result and Discussion

During the period of field survey researcher observed that Kokilabari reserve forest is mostly covered with moist mixed deciduous forest, semi-evergreen and evergreen forest in Indo Bhutan Border and plain areas. Lots of climbers, herbs and Shrubs plant species also covered which are distributed most part of the study area. All types of plants species are systematically divided according to their nature and habit. All together total 235 number of species have recorded which belongs to 96 family and 195 genera. **Evergreen and semi-evergreen** include 48 number of species belongs to 20 family with 35 genera. Dominant species from this category mainly, *Michelia champaca*, *Diospyros embryopteris*, *Michelia oblonga*, *Flacourtia cataphracta.*, *Mangifera sylvatica* *Hydnocarpus kurzii*, *Mesua ferrea*, *Garcinia cowa*; *Walsura*

robusta., *Dipterocarpus mannii*, *Terminalia arjuna*, *Terminalia chebula*, *Terminalia citrine*, *Terminalia myriocarpa*, *Syzygium malaccense*, *Diospyros taposia* *Holarrhena antidysenterica*, *Cinnamomum cecicodhne*, *Cinnamomum tamala* etc. On the other hand **deciduous forest** recorded total 65 plant species which belongs to 26 family and 53 genera. Dominant species are *Treiwia nodiflora*, *Sterculia villosa*, *Tectona grandis*, *Dillenia indica*, *Acacia catechu*, *Dillenia pentagyna*, *Baccaurea remiflora*, *Morus australias*, *Ficus benjaamina*, *Terminalia bellirica*, *Gmelina arborea*, *Ficus geniculate*, *Cassia fistula*, *Aglaia edulis*, *Lagerstroemia parviflora*, *Meyna spinosa*, *Callicarpa arborea*, *Bridelia retusa*, *Phyllanthus fraternus*, *Artocarpus chama*, *Shorea assamica*, *Butea menosperma* *Dalbergia sisoo*, *Altingia*, *Carca arborea* etc. Total number of **Climbers** species 22 Which belongs to 14 number of family and 19 number of genera. From category dominant species are mainly, *Tinospora cordifolia*; *Grewia hirsute*; *Natsiatum hepaticum*, *Vitis quadrangularis*; *Ipomia aquatic*; *Thunbergia grandiflora*; *Dioscorea alata*. Among the **herbs** total 51 number of species have been identified and they are belongs to 19 number of family and 44 number of genera. Dominant species are mainly *Physalis minima*; *Scorparia duleis*; *Hypytis suaveolens*; *Boerhavia repens*; *Amaranthus spinosus*; *Achyranthes aspera*; *Eupatorium odoratum*, *Euphorbia hirta*; *Curcuma amada*; **Shrubs** include total 32 to species belongs to 15 family and 29 genera. The main dominant species are *Calotropis gigantean*, *Solanum torvum*; *Solanum xanthocarpum*; *Clerodendrum viscosum*; *Lantana camera*; *Mimosa pudica*; *Casia tora*, *Triumfetta rhomboidea*; *Adhatoda vasica*; etc. Total 18 number of **grass** species have identified, belongs to 2 number of family and 15 number of genera. The dominant grass are mainly *Cyperus rotundus*; *Imperrata cylindrical*; *Arundo donax*, *s*; *Cynodon dactylon*; *Hygroryza aristata*;

Table 1: Evergreen forest

| Family and Botanical name of plants | Habit | Local name |
|--|------------|-------------------|
| <i>Michelia champaca</i> L.(Magnoliaceae) | Tree | Titasapa |
| <i>Diospyros embryopteris</i> Pers (Ebenaceae) | Tree | Kendu |
| <i>Talauma hodgsonii</i> , King.(Magnoliaceae) | Tree | Barhmmuri |
| <i>Michelia oblonga</i> , Wall.ex.Hook.f.& Th(Magnoliaceae) | Tree | Kathal sapa |
| <i>Polyalthia simiarum</i> , Hook, f& Th.(Annonaceae) | Tree | Bagakhemtou |
| <i>Flacourtia cataphracta</i> . Roxb.(Flacourtiaceae) | SmallTree | Panial |
| <i>Mangifera sylvatica</i> Roxb.(Anacardiaceae) | Tree | Ban am |
| <i>Casearia glomerata</i> Roxb.,(Flacourtiaceae) | Tree | Telvuruki |
| <i>Hydnocarpus kurzii</i> (king) Warb.(Flacourtiaceae) | Tree | Calmogora |
| <i>Mesua ferrea</i> , Linn(Clusiaceae) | Tree | Nahar |
| <i>Garcinia cowa</i> Roxb.ex.D.C.(Clusiaceae) | SmallTree | Kauri thekera |
| <i>Garcinia xanthochymus</i> , Hook.f.(Clusia ceae) | Tree | Tepal tenga |
| <i>Walsura robusta</i> . Roxb,(Meliaceae) | SmallTree | Lali |
| <i>Thespesia populnea</i> (L) Solen(Malvaceae) | SmallTree | Parash papal |
| <i>C.tamala</i> (Buch-Ham) Nees.ex Ebem.(Lauraceae) | SmallTree | Tespat |
| <i>Dipterocarpus mannii</i> King.ex.Kanjilal(Dipterocarpaceae) | Tree | Halang |
| <i>Combretum roxburghii</i> Spreng(Combretaceae) | Lianas | Latasali |
| <i>Terminalia arjuna</i> (DC) W.&A.(Combretaceae) | Tree | Arjun gas |
| <i>Terminalia chebula</i> Retz (Combretaceae) | Tree | Shilikha |
| <i>Terminalia citrina</i> (Gaertn) Roxb ex. Flem(Combretaceae) | Tree | Hariteki shilikha |
| <i>Terminalia myriocarpa</i> Heurck et. Mull (Combretaceae) | Tree | Halakh |
| <i>Syzygium malaccansis</i> L.(Myrtaceae) | Small Tree | Pani jam |
| <i>Syzygium operculatum</i> L. (Myrtaceae) | Small Tree | Godha jamu |
| <i>Chrysophyllum lanceolatum</i> (Bl.) DC.(Sapotaceae) | Tree | Ban Pitha |
| <i>Diospyros embryopteris</i> Pers.(Ebenaceae) | Tree | Kendu |
| <i>Diospyros taposia</i> Ham.(Ebenaceae) | Tree | Kendu, Gulal |
| <i>Jasminum sambuc</i> Ait(Oleaceae) | Shrub | Duamali |
| <i>Alstonia scholaris</i> (L.) R.Br.(Apocynaceae) | Tree | Chatiyana |
| <i>Holarrhena antidysenterica</i> Wall(Apocynaceae) | Tree | Dudhkhari |
| <i>Wrightia arborea</i> (Dennst.) Mabb (Apocynaceae) | Small Tree | Saru Dudhkhari |

| | | |
|--|-----------------|--------------------------|
| <i>Actinodaphne obovata</i> (Nees) Bl.(Lauraceae) | Tree | Patisonda, Nagabaghlnala |
| <i>Cinamomum cecicodaphne</i> Meissn. (Lauraceae) | Tree | Gandhsarboi |
| <i>Cinnamomum glanduliferum</i> (Nees) Meissn. (Lauraceae) | Tree | Bar Gandhsarboi |
| <i>Cinnamomum tamala</i> (Buch-Hum) Nees. Ex Ebem. (Lauraceae) | Small Tree | Tejpat |
| <i>Linsea chinensis</i> Lamk. (Lauraceae) | Tree | Baghlnala |
| <i>Linsea glutinosa</i> (Lour) C.B. Robins. (Lauraceae) | Tree | Seluk |
| <i>Linsea salicifolia</i> (Roxb. Ex Nees). Hook. f. (Lauraceae) | Shrub | Dighlati |
| <i>Persea villosa</i> (Roxb.) Kost. (Lauraceae) | Tree | Bandhaisam |
| <i>Phoebe cathia</i> (D.Don) Kost. (Lauraceae) | Tree | Mekhali,Kohi |
| <i>Elaegnus caudate</i> Schlecht. Ex Msuniyma (Elaegnaceae) | Shrub | Banjara tenga |
| <i>Drypetes assamica</i> (Hook. f) Pax et. Hoffm.(Euphorbiaceae) | Tree | Dukaha |
| <i>Hevea brasiliensis</i> Muell-Arg(Moraceae) | Tree | Rubber gac |
| <i>Streblus asper</i> Lour(Moraceae) | Small Tree | Soura |
| <i>Castanopsis armata</i> (Roxb.) Spach (Fagaceae) | Tree | Saru Singgiri, Mekhu |
| <i>Castanopsis indica</i> (Roxb.) D.C. (Fagaceae) | Tree | Singgiri, |
| <i>Quercus floribunda</i> Rehder. (Fagaceae) | Tree | Oak Tree |
| <i>Pandanus fascicularis</i> Lamk((Fagaceae) | Stragglng Shrub | Keteki pul(Screw pine) |
| <i>Barringtonia acutangula</i> (L.) Gaertn. (Barringtoniaceae) | Small tree | Paniamra, Hijal |

Table 2: Moist mixed Deciduous forest

| Family and Botanical name of plants | Habit | Local name |
|--|------------|----------------------|
| <i>Treiba nodiflora</i> L.(Euphorbiaceae) | Tree | Velcal |
| <i>Sterculia villosa</i> Roxb(Sterculiaceae) | Tree | Odal |
| <i>Techtona grandis</i> L.f(Verbenaceae) | Tree | Cegun |
| <i>Dillenia indica</i> Linn.(Dilleniaceae) | Tree | Outenga, pach kal |
| <i>Acacia catechu</i> Wild,(Mimosaceae) | Small Tree | Khawer |
| <i>Dillenia pentagyna</i> Roxb.(Dilleniaceae) | Tree | Oxi, bancalata |
| <i>Schima wallichii</i> (D.C.)Kuntz.(Theaceae) | Tree | Nagaver |
| <i>Mitrephora tomentosa</i> , Hook, f& Th.(Annonaceae) | SmallTree | Khaula |
| <i>B. stipularis</i> (L) Bl(Euphorbiaceae) | Tree | Mou silikha |
| <i>Baccaurea remiflora</i> , Lour(Euphorbiaceae) | Small Tree | Leteku |
| <i>Morus australis</i> Poir(Moraceae) | SmallTree | Nuni gac |
| <i>Ficus benamina</i> L.(Moraceae) | Tree | Jari gac |
| <i>Terminalia bellirica</i> (Gaertn) Roxb. Ex Flem(Combretaceae) | Tree | Vomora |
| <i>Adina oligocephala</i> , havi(Rubiaceae) | Tree | Haldhi capa |
| <i>Gmelina arborea</i> Roxb(Thunbergiaceae) | Tree | Gameri |
| <i>P. emblica</i> L.(Euphorbiaceae) | SmallTree | Amlakhi |
| <i>B.retusa</i> (L) Spreng(Euphorbiaceae) | Tree | Kuhir |
| <i>Ficus geniculata</i> , Kurz(Moraceae) | Tree | Tenggabar |
| <i>Cassia fistula</i> Linn(Caesalpiniaceae) | Tree | Sonaru |
| <i>Aglaiia edulis</i> , A.Gray (Meliaceae) | Tree | Sib, Momahimleteku |
| <i>Ficus glomerata</i> Roxb.(Moraceae) | Tree | Jagya Dimaru |
| <i>G. assamicum</i> . Hook f(Euphorbiaceae) | Tree | Dal paduli |
| <i>Lagerstroemia parviflora</i> Roxb.(Lythraceae) | Small Tree | Jorali |
| <i>Duabanga grandiflora</i> (Roxb. ex. DC) Walp (Sonneratiaceae) | Tree | Khakan,Hakal |
| <i>Telramelos nodiflora</i> R.Br.(Datisceae) | Tree | Velu |
| <i>Sambucus javanica</i> Bl.(Caprifoliaceae) | Shrub | Sukati |
| <i>Viburnum colebrookianum</i> Wall (Caprifoliaceae) | Shrub | Mejenga |
| <i>Adina oligocephala</i> Havi.(Rubiaceae) | Tree | Haldhi Capa |
| <i>Canthium glabrum</i> Bl. (Rubiaceae) | Tree | Ban Thereju |
| <i>Catunaregam spinosa</i> (Th.)Tiruv (Rubiaceae) | Small Tree | Bih Mana |
| <i>Haldina cordifolia</i> (Roxb.) Ridsd (Rubiaceae) | Shrub | Laopatia |
| <i>Meyna laxiflora</i> Robyns (Rubiaceae) | Shrub | Maina |
| <i>Meyna spinosa</i> Roxb. ex. Link (Rubiaceae) | Small Tree | Kotkora |
| <i>Morinda angustifolia</i> Roxb. (Rubiaceae) | Tree | Daru haridra,Asu gac |
| <i>Randia spinosa</i> (L.f.) Poir. (Rubiaceae) | Shrub | Bih mana |
| <i>Callicarpa arborea</i> Roxb. (Verbenaceae) | Shrub | Banamala, maskata |
| <i>Callicarpa macrophylla</i> Vahl. (Verbenaceae) | Shrub | Tang lati |
| <i>Gmelina arborea</i> Roxb. (Verbenaceae) | Tree | Gameri |
| <i>Premma benghalensis</i> el. (Verbenaceae) | Tree | Gohora |
| <i>Antidesma acidum</i> Retz.(Euphorbiaceae) | Small Tree | Abu tenga |
| <i>Bischofia javanica</i> Bl. (Euphorbiaceae) | Tree | Urium |
| <i>Bridelia monoica</i> (Lour.) Merr. (Euphorbiaceae) | Tree | Pat kuhir |
| <i>Bridelia retusa</i> (L) Spreng (Euphorbiaceae) | Tree | Kuhir |
| <i>Glochidion arborescens</i> Bl. (Euphorbiaceae) | Shrub,tree | Panimudi |
| <i>Glochidion velutinum</i> Wight (Euphorbiaceae) | Tree | Dal paduli |
| <i>Macaranga indica</i> Wight (Euphorbiaceae) | Tree | Jagalu |
| <i>Mallotus philippinensis</i> (Lamk) Mucl-Arg. (Euphorbiaceae) | Small Tree | Jarath |
| <i>Phyllanthus fraternus</i> Webster. (Euphorbiaceae) | Herbs | Mati amlakhi |

| | | |
|--|------------|--------------|
| <i>Artocarpus chama</i> Buuch-Ham (Moraceae) | Tree | Cam Kathal |
| <i>Artocarpus lacucha</i> Buch-Ham | Tree | Bahat |
| <i>Shorea assamica</i> Dyer. (Dipterocarpaceae) | Tree | Mekai |
| <i>Pterospermum acerifolium</i> Wild (Sterculiaceae) | Tree | Matamarulia |
| <i>Ailanthus integrifolia</i> Lamk. (Simaroubaceae) | Tree | Barpat |
| <i>Canarium benghalense</i> Roxb. (Burseraceae) | Tree | Dhuna gac |
| <i>Garuga floribunda</i> Decn. Vari gamblei (Burseraceae) | Tree | Ban Micree |
| <i>Aglaia spectabilis</i> Miq. (Meliaceae) | Tree | Amari |
| <i>Semecarpus anacardium</i> L. (Anacardiaceae) | Small Tree | Vela |
| <i>Acacia odoratissima</i> Benth (Mimosaceae) | Tree | Samkarois |
| <i>Acacia procera</i> (Roxb) Benth. (Mimosaceae) | Tree | Siralu |
| <i>Bauhinia vahlii</i> W. et. A. (Caesalpiniaceae) | Liana | Lata Kanchan |
| <i>Bauhinia scandens</i> L. var <i>Horsfieldii</i> (miq) ohashi. (Caesalpiniaceae) | Liana | Deojakhala |
| <i>Butea menosperma</i> (Lamk) Taub. (Papilionaceae) | Tree | Palakh |
| <i>Dalbergia sisoo</i> Roxb. (Papilionaceae) | Tree | Sishu gac |
| <i>Altingia excels</i> Noronha (Droseraceae) | Herb | Rod mukuta |
| <i>Carca arborea</i> Roxb. (Lecythidaceae) | Tree | Kumvi |

Table 3: Climbers, Herbs, Shrubs, and Scrub forest









| Family and Botanical name of plants | Habit | Local name |
|---|------------------|------------------------|
| <i>Tinospora cordifolia</i> (wild), Hook. f. & Th. (Menispermaceae) | Cimber | Saguni lata |
| <i>Grewia hirsuta</i> Vahl. Var <i>heliotrifolia</i> (Tiliaceae) | UnderShrub | Suktapata |
| <i>Natsiatum hepaticum</i> , Buch-Ham. (Icaciniaceae) | Climber | Oupat |
| <i>Vitis quadrangularis</i> L. (Vitaceae) | Climber | Harjora lata |
| <i>Mimosa pudica</i> L. (Mimosaceae) | UnderShrub | Lajuki lata |
| <i>Casia tora</i> L. (Caesalpiniaceae) | UnderShrub | Saru medaluwa |
| <i>Eupatorium odoratum</i> L. (Asteraceae). | Herbs | Germany ban |
| <i>Ipomia aquatica</i> Forssk (Convolvulaceae) | Climber | Kalmou |
| <i>Triumfetta rhomboidea</i> Jacq. (Tiliaceae) | UnderShrub | Agara |
| <i>Calotropis gigantea</i> (L) R.Br. (Asclepiadaceae) | Shrub | Akan |
| <i>Solanum torvum</i> Sw. prodr. (Solanaceae) | UnderShrub | Hativekuri |
| <i>Solanum xanthocarpum</i> schard & Wendi (Solanaceae) | UnderShrub | Billkuli Tita |
| <i>Physalis minima</i> L. (Solanaceae) | Herb | Pakmou |
| <i>Scorparia duleis</i> L. (Scophulariaceae) | Herb | Bandhania |
| <i>Clerodendrum viscosum</i> Vent (Verbenaceae). | Shrub | Dhapat Tita |
| <i>Lantana camera</i> L. (Verbenaceae) | Shrub | Gu phul |
| <i>Hyptis suaveolens</i> , poit (Lemiaceae) | Herb | Tokma Tita |
| <i>Boerhavia repens</i> L. (Nyctaginaceae) | Herb | Purna-naba (White) |
| <i>Amaranthus spinosus</i> L. (Amaranthaceae) | Herb | Hatikhutura |
| <i>Achyranthes aspera</i> L. (Amaranthaceae) | Herb | Uvat kata |
| <i>Euphorbia hirta</i> L. (Euphorbiaceae) | Herb | Gakhirati ban |
| <i>Dioscorea esculenta</i> Burk (Dioscoreaceae) | Climber | Mowa alu (Asiatic yam) |
| <i>Dioscorea pentaphylla</i> L. (Dioscoreaceae) | Climber | Paspatia alu |
| <i>Boehmeria nivea</i> Hook, et Arm. (Urticaceae) | UnderShrub | Remi |
| <i>Urena lobata</i> Linn. (Malvaceae) | Under Shrubs | Son Baralua |
| <i>Glycosmis arborea</i> (Roxb.) Corr. (Rutaceae) | Under Shrub | Hengena paka |
| <i>Micromelum minutum</i> W. et. Podr. (Rutaceae) | Shrub | Silaguti |
| <i>Zanthoxylum nitidum</i> (Roxb.) D.C. (Rutaceae) | Climber | Tejmaibih |
| <i>Cassia alata</i> Linn. (Caesalpiniaceae) | Under Shrub | Kharpat |
| <i>Butea superba</i> Roxb. (Papilionaceae) | Liana | Sallata |
| <i>Butea perviflora</i> Roxb. (Papilionaceae) | Liana | Sal lata |
| <i>Abrus precatorius</i> Linn. (Papilionaceae) | Climber | Latumani |
| <i>Medinilla rubicund</i> Bl. (Malastomaceae) | Shrub | Bagi tenga |
| <i>Melastoma malabathricum</i> L. (Malastomaceae) | Shrub | Futuka |
| <i>Hedyotis corymbosa</i> (L) Lamk. (rubiceae) | Herbs | Sarpa jiva |
| <i>Paederia scandens</i> (Lour) Merr. (Rubiaceae) | Climber | Vedailata |
| <i>Ageratum conyzoides</i> L. (Asteraceae) | Herbs | Gendheli ban |
| <i>Xanthium strumarium</i> L. (Asteraceae) | Herbs | Agara |
| <i>Plumbago indica</i> L. Diss. Stickman. (Plumbaginaceae) | Herbs | Ranga Agiacit |
| <i>Rauwolfia serpentina</i> Benth. (Apocynaceae) | Under Shrub | Sarpgandha |
| <i>Tabernaemontana divericata</i> (L.) R.Br. (Apocynaceae) | Shrub | Kath Malati, Kathanda |
| <i>Vallis solanacea</i> (Roth.) O.Ktze. (Apocynaceae) | Straggling shrub | Gendheli lata |
| <i>Asclepias curassavica</i> L. (Asclepiadaceae) | Herb | Vadodi tita |
| <i>Cryptolepis buchanani</i> Roem & Schult (Asclepiadaceae) | Herb | Kala Anantamul |
| <i>Hoya parasitica</i> Wall. (Asclepiadaceae) | Climber | Laham pat |
| <i>Tylophora indica</i> (Burm. F.) Merr. (Asclepiadaceae) | Shrub | Anantmul |
| <i>Myriopterion extensum</i> (Weight) K. Schum. (Periplocaceae) | Climber | Sagarcinga Lata |
| <i>Hydrolea zeylanica</i> (L.) Vahl. (Hydrophyllaceae) | Herb | Leheti ban |
| <i>Argyrea argentea</i> Arn. ex. Choisy. (convolvulaceae) | climber | Bih dharak |

| | | |
|---|-------------|---------------------------|
| <i>Merremia vitifolia</i> (Burm. f.) Hallier. f. (Convolvulaceae) | Climber | Dighilewa |
| <i>Withania somnifera</i> Dun. (Solanaceae) | Under shrub | Aswagandha |
| <i>Andrographis paniculata</i> (Burn.f.) wall.ex. Nees. (Acanthaceae) | Herb | Kalmegh |
| <i>Justicia adhatoda</i> L. (Acanthaceae) | Shrub | Bagabahak |
| <i>Adhatoda vasica</i> Need. (Acanthaceae) | Shrub | Bahak |
| <i>Phlogacanthus thyrsoiflorus</i> (Hardw.) (Acanthaceae) | Under Shrub | Rambahak, Titaful |
| <i>Phlogacanthus tubiflorus</i> Nees. (Acanthaceae) | Shrub | Vatoi Tita |
| <i>Thunbergia grandiflora</i> (Rottb) Roxb. (Thunbergiaceae) | Climber | Kukura lata |
| <i>Lippia javanica</i> (Burm.f.) Spreng. (Verbenaceae) | Herb | Pikhas ban |
| <i>Pygmaea premna herbacea</i> . (Verbenaceae) | Under Shrub | Matiya Jam |
| <i>Vitex negundo</i> L. (Verbenaceae) | Shrub | Pacatiya |
| <i>Pogostemon benhalensis</i> (Burm.f.) O. Kuntze. (Lamiaceae) | Herb | Suklati |
| <i>Boerhavia diffusa</i> L. (Nyctaginaceae) | Herb | Purn Naba (Red) |
| <i>Boerhavia repens</i> L. (Nyctaginaceae) | Herb | Purn Naba (White) |
| <i>Achyranthes aspera</i> L. (Amaranthaceae) | Herb | Uvatkata |
| <i>Alternanthera sessilis</i> (L.) R. Br.ex.D.C. (Amaranthaceae) | Herb | Mati kaduri |
| <i>Polygonum microcephalum</i> D.Don. (Amaranthaceae) | Herb | Madhusoleng |
| <i>Rumex nepalensis</i> Spreng. (Amaranthaceae) | Herb | Tara Baura |
| <i>Aristolochia tagala</i> Cham. (Aristolochiaceae) | Climber | Pani Pipli |
| <i>Piper sylvaticum</i> Roxb. (Piperaceae) | Climber | Pahari Pipli |
| <i>Piper thomsonii</i> (C.Dc.) Hook. f. (Piperaceae) | Climber | Aunipan |
| <i>Euphorbia hirta</i> L. (Euphorbiaceae) | Herb | Gakhirati Ban |
| <i>Alisma plantago</i> L. (Alismaceae) | Herb | Pani Kadali |
| <i>Sagittaria sagittifolia</i> , L. (Alismaceae) | Herb | Pani Kasu |
| <i>Euphorbia nerifolia</i> L. (Euphorbiaceae) | Shrub | Siju |
| <i>Euphorbia pulcherrima</i> Willd. (Euphorbiaceae) | Shrub | Lalpata |
| <i>Glochidion assamicum</i> Hook.f. (Euphorbiaceae) | Small Tree | Pani Citiki |
| <i>Ricinus communis</i> L. (Euphorbiaceae) | Under Shrub | Ara gac (Castor) |
| <i>Laportea crenulata</i> Gaud. (Urticaceae) | Shrub | Chorat |
| <i>Cannabis sativa</i> L. (Cannabaceae) | Under Shrub | Vang, Ganja |
| MONOCOTYLEDONS | | |
| <i>Achasma loroglossum</i> (Gagnep) Larsen. (Zingiberaceae) | Herb | Karful, Jastimadhu. |
| <i>Aframomum melegueta</i> (Rosc.) K.Sohum (Zingiberaceae) | Herb | Bar Elaci |
| <i>Curcuma amada</i> Roxb. (Zingiberaceae) | Herb | Am Ada |
| <i>Curcuma domestica</i> Valet. (Zingiberaceae) | Herb | Haladhi (Turmeric) |
| <i>Elettaria cardamomum</i> (L.) Mutron (Zingiberaceae) | Herb | Saru Elaci |
| <i>Kaempferia galangal</i> L. (Zingiberaceae) | Herb | Gathyan |
| <i>Zingiber officinale</i> Rosc. (Zingiberaceae) | Herb | Ada (Zinger) |
| <i>Zingiber zerumbet</i> (L.) J.E. Smith. (Zingiberaceae) | Herb | Barahu |
| <i>Costus speciosus</i> (Koen.) Smith (Costaceae) | Herb | Jamlakhuti |
| <i>Phrynium pubinerve</i> Bl. (Marantaceae) | Herb | Koupat |
| <i>Schumannianthus dichotomus</i> (Roxb.) Gagnep (Marantaceae) | Herb | Patidai gac |
| <i>Crinum asiaticum</i> L. (Marantaceae) | Herb | Anarakh (Pineapple) |
| <i>Dioscorea alata</i> L. (Dioscoreaceae) | Climber | Kath Alu |
| <i>Asparagus recemosus</i> Willd (Liliaceae) | Climber | Sat mul |
| <i>Gloriosa superba</i> L. (Liliaceae) | Climber | Agnishikha |
| <i>Smilax macrophylla</i> L. (Smilacaceae) | climber | Kumarika, Bagh acora Lata |
| <i>Eichhornia crassipes</i> (Mart.) Solms (Pontederiaceae) | Herb | Pani Meteka |
| <i>Monochoria hastata</i> (L.) Soims (Pontederiaceae) | Herb | Jonaki ful |
| <i>Calamus flagellum</i> (Arecaceae) | Cane (Herb) | Raidang |
| <i>Calamus tenuis</i> (Arecaceae) | Cane (Herb) | Jati Bet |
| <i>Livistona jenkinsiana</i> Griff (Arecaceae) | Palm (Herb) | Takou |
| <i>Acorus calamus</i> L. (Araceae) | Herb | Boch |
| <i>Alocasia cucullata</i> Schott. (Araceae) | Herb | Panch mukhi Kachu |
| <i>Alocasia indica</i> (Lour) Koch. (Araceae) | Herb | Man Kachu |
| <i>Colocasia esculenta</i> (L) Schott. (Araceae) | Herb | Kola Kachu |
| <i>Homalomena aromatica</i> (Araceae) | Herb | Gan Kachu |
| <i>Lasia spinosa</i> Thw. (Araceae) | Herb | Cheng Mora |
| <i>Pistia stratiotes</i> L. (Araceae) | Herb | Bar Puni |
| <i>Typhonium trilobatum</i> (L.) Schott. (Araceae) | Herb | Cham Kachu |

Table 4: Grassland

| Family and Botanical name of plants | Habit | Local name |
|--|--------|-----------------------------|
| <i>Cyperus rotundus</i> L.(Cyperaceae) | Grass | Keyaban |
| <i>Scirpus articulatus</i> L.(Cyperaceae) | Grass | Cecuban |
| <i>Vetiveria zizanioides</i> (L) Nash(Poaceae) | Grass | Birina,Mutha ban |
| <i>Hygroryza aristata</i> (Poaceae) | Grass | Dalghah(karanga dal) |
| <i>Imperata cylindrical</i> (L) p.Beacu(Poaceae) | Grass | Ulukher |
| <i>Thysanohwna agorostis</i> Needs.(Poaceae) | Grass | Jaru ban |
| <i>Phragmites karka</i> Trin. Ex steud.(Poaceae) | Grass | Khagari |
| <i>Leersia hexandra</i> Sw(Poaceae) | Grass | Arali ghah |
| <i>Arundo donax</i> , L.(Poaceae) | Grass | Nall |
| <i>Bambusa arundinacea</i> ,(Retz) wild(Poaceae) | Bamboo | Kataha bah |
| <i>Bambusa balcoa</i> , Roxb(Poaceae) | Bamboo | Valuka bah |
| <i>Bambusa gigantean</i> Wall(Poaceae). | Bamboo | Karia bah |
| <i>Cymbopogon citratus</i> ,(DC) stapf(Poaceae) | Grass | Nemugandhi ban(Lemon grass) |
| <i>Cynodon dactylon</i> (L) pers(Poaceae) | Grass | Dubariban |
| <i>Erianthus ravennae</i> L.P. Beauv(Poaceae) | Grass | Ekara |
| <i>Saccharum officinarum</i> , L.(Poaceae). | Grass | Kuhiyar(sugarcane) |
| <i>Saccharum orundinaceum</i> Retz. (Poaceae) | Grass | Megela |
| <i>Zea mays</i> L. (Poaceae) | Grass | Gomdhan(Maize) |

PHOTO PLATE

| | |
|---|--|
|  |  |
| Mixed vegetation in Kokilabari RF | |
|  |  |
| Grassland vegation in Theklai River in Kokilabari RF | Mixed Vegetation |
|  |  |
| Mixed evergreen and deciduous vegetation in Kokilabari RF | Bhabartarai zone in Kokilabari RF |
|  |  |
| Climber and herbs in Kokilabari RF | |

Conclusion

From the study it has been observed that the plant diversity of Kokilabari reserve forest areas is very rich. Actually a few years ago the forest area has covered with rural villages, but due to some natural and political disturbances people of that area have migrated to some another place. The whole area come under the regeneration of forest flora with diversity. At present some forest village are stay entire the forest area and their life is fully depend on forest product. A private N.G.O. Manas Maozigendri Ecotourism Society has now taken the responsibility to protect the forest area. This NGO have organized many programmed for protection and conservation of plant species and diversity with help of government and other private sources. But it not sufficient to protect this area so it is very essential to take responsibility by state government to conserve the reserve forest area in proper works. Then only we can protect this area in a comfortable level because engaged in Encroachment of forest land for settlement of people and development of transport facilities is the common thing at the present position to destroy the forest diversity.

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