

FORESTRY & RUBBER

Forest is an integral part of the culture and tradition of Tripura. It also maintains the environment, bio-diversity, land, soil, water and air regimes. Any imbalance in equilibrium of the above components affects the system adversely and has an adverse impact on human life.

The state has a geographical area of 10,491 Km² of which 6,294 Km² (60%) is the forest area as per legal classification in the state. As per Report of the Forest Survey-2011 of India, total forest cover in the state is 7977 km² i.e. 76.04% of the total geographical area. Due to 856 Km long international borders with Bangladesh, the trans-border smuggling of forest produces is one of the most serious problems leading to degradation of these forests. In the forests of the state, there are 266-species of medicinal plants, 379-tree species, 320-shrubs, 581-herbs, 165-climbers, 16-climbing shrubs, 35-ferns, 45-epiphytes and 4-parasites. Moreover, there are 50-species endemic to Tripura. 2-primitive plants and 7-endangered plants are also found in Tripura.

Forest composition and growing stock:

Blessed with high rainfall, humidity and nutrient rich soil, the forests of Tri Blessed with high rainfall, humidity and nutrient rich soil, the Forests of the State are rich in productivity and the potential productivity index is estimated to be 9-12 cubic meter per hectare per annum.

The forests of Tripura are divided into two major forest types. These are-(a) evergreen forest and (b) moist deciduous forest. Moist deciduous forests are further divided in two distinct categories, namely (i) moist deciduous sal forests and (ii) moist deciduous mixed forest. Moist Deciduous Sal Forest covers parts of Belonia, Udaipur, Sonamura and Sadar Sub-Divisions.

Inventory report published by the Forest Survey of India in the year 2011 gives the account of forest cover of Tripura as follows :-

Stratum	Area in sq. km	Forest area (% of Geo. Area)
Very dense forest	109	1.04
Moderately dense forest	4686	44.67
Open forest	3182	30.33
Total forest	7977	76.04

Source: Forest Department, Tripura.

Contribution of forestry sector to rural economy:

Forest is the complex eco system providing a variety of ecological and other valuable goods & services like timber, food, fodder, beauty of landscape, wilderness, peace and solitude. The efficient use of forest resource for welfare of the state and its people is of this utmost importance.

The revenue from forestry sector during 2014-15 is around Rs.984.77 lakhs. It is estimated that the contribution of the forestry and lodging sub-sector to the Net State Domestic Product (NSDP) is estimated at Rs.5700.00 crore in 2014-15.

The State Forest Department manages the recorded 6294.287 sq. km. of forest area in the State. Besides, managing the forest area, it undertakes extension of tree cover to private holdings for better environmental management and for achieving the following aims and objectives:

- i) Maintain and improve the productive potential of natural resources,
- ii) Strengthening of rural livelihood by providing fuel, fodder, timber, bamboo and other NTFP,
- iii) Conservation and development of resources base by introducing new technologies and encouraging people's participation through the JFM programmes,
- iv) Addressing the ever-increasing demands of the population,
- v) Reduce the pressure on forests.

Achievements in 2014-15:

i) To increase the productivity of existing forests, afforestation around 15,193 hectare was taken up on degraded forest land during 2014-15. Further, 1.047 lakh seedlings have been distributed up to March, 2013 by the State Forest Department for plantation on public and forest land.

ii) An innovative scheme of 'Angan-Ban Prakalpa' for productive use of fallow land in private holdings is being implemented by the Forest Department since 1996-97. Under the scheme, it is envisaged to provide technical inputs and guidance to the selected beneficiaries in raising plantation of forest species on private wasteland. Till 2014-15, 4915 hectare have been covered under the project involving covering around 28,043 beneficiaries.

- i) For the purpose of active participation and involvement of local communities in protection and development of forests, the Joint Forest Management (JFM) has been undertaken in the state on a large scale based on resolution of the State Government taken during 16th January 2002. Till 2014-15, 1000 numbers of JFM Committees have been formed involving a project area of more than 2,60,210.62 hectare involving 1,00,045 tribal and rural poor families.
- ii) To provide support to community participation in protection and management of forest, the JFMs have been made an integral part of Centrally Sponsored Schemes (CSS) of Intensification of Forest Management (90:10), Rastriya Krishi Vikash Yojana (RKVY), Assistant to States for Development of National Park & Sanctuaries, Project Elephant, National Bamboo Mission, National Afforestation Programme, Central Zoo Authority, National Rain fed Area Authority, Rudrasagar Wetland Development project in Tripura and NEC-Bamboo Resource Development for socio-economic upliftment of rural poor through community based approach in Tripura. During 2014-15, an amount of Rs.1052.46 lakh (including Rs.135.18 lakhs unspent balance of previous years) has been released by the Government of India for implementation of the scheme National Afforestation Programme. Out of Rs.1052.46 lakhs, an amount of Rs.992.13 lakhs has been utilized during 2014-15. Plantation over 4,547 hectare plantation has been raised under National Afforestation Programme during 2014-15.

Protected Area Network (PAN):

Bio-diversity of the State is dwindling at an alarming rate. Pursuant to the need for conservation and development of bio-diversity in situ, a network of 4 sanctuaries and one National Park has been established in the State during the last decade. One more sanctuary in Atharamura hill range is being considered.

The PAS represent diverse ecosystems and wildlife habitats spread throughout the State. These are prioritized for protection and conservation of diversity, both floral and faunastic. Sanctuary wise positions with targeted species for conservation are tabulated below:-

Name of the sanctuary	Area in sq.km2	Important flora and fauna found
Clouded Leopard National at Sepahijala	5.08	<p>Flora: Chariawal, Jagyadumur, Kadam, Hargaza, Tetul, Amra, Semul, Ghoraneem, Jarul, Kanchan, Neem, Sal, Bahera, Amlaki, Menda, Kakra, Kao, Kumira, Jirabat, Neur, Chamal, Sidhajarul, Kali, Bel, Mango, Nageshar, Kanchan, Chatiwan, Jalpai, Sonal, Bajna, Bankadam, Peltaform, Raktanchn, Raktabura, Kamini, Kanak, Acacia, Mandar, Jam, Bat, Bakul, Aar, Haritaki, Pukiattetai, Titt Jam, Macherkanta/ Jalpoma, Mendaawal, Banmala, Karai, Uuria, Bat, Bandar pisle, Loha tree, Pongamia, Harish, Medda Awal, Pichla, Kutki (Bhata), Lotcon, Ban Barai, Sarpagandha, Bogamedula, Curry Patta, Karabi, Batkari, Kurcha, Banjamir, Naichha (Ban), Keran, Bisjaran, Kathalichampa, Biripata, Bandar hoola, Barak bamboo, Paura bamboo, Mitinga Bamboo.</p> <p>Fauna: Clouded Leopard, Barking deer, Wild boar, Wild cat, Crab eating mongoose, Mongoose, Pocupine, Leopard Cat, Rhesus Macaque, Pig tailed macaque, Spectacle Langur, Capped Langur, Common Palm Civet, Himalayan Palm Civet, Indian Large Civet, Indian Small Civet, Oriental pied hornbill, Flying squirrel, Rock python, Spectacle cobra, Golden flying snake, Cat snake, Vine snake, Common mock viper, Oriental rat snake, Indo-Chinese rat snake, Stripped keel back, Common wolf snake, Spotted wolf snake, Chequered keel back, Bar necked kill back, Zaw's wolf snake, Monitor lizard, Pit viper, Red necked keel back, Greater black krait, Common krait, Babded krait, King cobra, Monpcle cobra, Blind worm snake.</p>
Sepahijala Wildlife Sanctuary	18.533 sq.km2 (1853.30 hectare)	<p>Flora: Agar, Am, Amlaki, Arahar, Ashok, Assamlota, Marchaban, Awal, Bhara, Bajna, Ban Kadam, Bandarhola, Neem, Sal, Menda, Bel, Langra, Michenia scandens, Kala megh, Kurcha, Bakul, Kamini, Kanak, Champa, Bat, Nageswar, Kathal, Debdaru, Bamboo, Cane.</p> <p>Fauna: Blue rock pegin, Parrot, Indian pond heron, Lesser whistling teal, Red jungle fowl,</p>

		Spotted dove, Owl, Wood packer, Hill myna, Crow, Myna, Indian robin, Bulbul, Indian vulture, Bat, Python, Other species snakes, Spectacle monkey, Pig tailed monkey, Rhesus macaque, Jungle smooth Indian otter, Indian porcupine, Indian Wild boar, Capped Langur, Flying squirrel, Slow loris, Leopard cat, Clouded leopard.
Gumti Wildlife Sanctuary	389.54	Flora: Agar, Am, Amlaki, Arahara, Ashok, Assamlota, Marchaban, Awal, Bhara, Bajna, Ban Kadam, Bandarhola, Neem, Sal, Menda, Bel, Langra, Rafugi lata, Kala Megh, Kurcha, Bakul, Kamini, Kanak, Champa, Bat, Nageswar, Bamboo. Fauna: Migratory water birds, Other species of birds, King cobra, Python, Other species snakes, Terrestrial tortoise, Serrow (wild goat), Sambar, Barking deer, Hog deer, Spectacle monkey, Capped langur, Hollock Gibbon, Stamp triled monkey, Leopard cat, Rhesus macaque, Porcupine, Flying squirrel, Leopard, Elephant.
Trishna Wildlife Sanctuary	194.71	Flora: Am, Amlaki, Awal, Bhara, Bajna, Neem, Sal, Bel, Rafugi lata, Bakul, Kanak, Champa, Teak, Garjan, Chamal, Jam, Kathal. Fauna: Horn bill (pied), Eagle, Cormorant, Kingfisher, Owl, Wood packer, Indian black drongo, Red jungle fowl, Jungle myna, Common teal, Little egret, Brahmny kite, Black headed oriole, Crow, Cuckoo, Bat Cobra, Indian phthon, Large Bengal monitor lizard, Indian bison, Wild boar, Barking deer, Leopard, Clouded leopard, Jungle cat, Leopard cat, Large & small Indian civet, Jackle, Common otter, Pig tailed macaque, Pharye's leaf monkey, Capped langur, Rhesus macaque, Hollock gibbon, Slow lories, Crab eating mongoose.
Bison National Park, Trishna	31.62	Flora: Careya arborea roxb, Dipterocarpus turbinatus gaerth, F, Terminalia bellirica (gaertn.) roxb, Suregada multiflora (A. juss) baill, Terminalia arjuna (Roxb) Wt. and Arn, Castanopsis indica ADC, Schema wallichii (DC) korth, Mallotus philippnesis (Lank) muell- arg, Cinnamomum obtusifolium nees ficus sp, Stereospermum personatus chatterjee, Artocarpus chaplasha roxb, Artocarpus lacucha roax, Dillenia pentagyna roxb, vitex peducularis wall. Ex chauenv. Syzygium cumini (L) skeels, Terminalia chebula retz., Ficus sp, Elaeocarpus floribundus BL, Microcos paniculata L. Mitragyna rotundifolia (Roxb.). Fauna:

		Indian bison, Wold boar, Barking deer, Leopard, Clouded leopard, Jungle cat, Leopard cat, Large & small Indian civet, Jackle, Capped langur, Hollock gibbon, Slow lories, Crab eating mongoose, Other species.
Roa Wildlife Sanctuary	85.85	Flora: Agar, Am, Amlaki, Bet, Tetul, Haritaki, Awal, Karai, Gamar, Chamal, arjan, Ping, Simul Arjun, Bel, Jam, Sal, Teak, Kanak, Kadam, Champa, Nageshwar, Amaltua, Bamboo. Fauna: Wood packer, Small egret, Rain quail, Little cormorant, White breasted water hen, Black headed myna, Bronze drongo, Blue rock pigeon, Cuckoo, Tailor bird, Indian tree pipit, Jungle crow, Bat, Monitor lizard, Python, Cobra, Krait, Rat, Snake, Spectacle monkey, Rhesus macaque, Barking deer, Jungle cat, Common mongoose, Slow loris, Other common species.
<i>Total:</i>	725.341	

Source: - Forest Department, Tripura.

Notification under Section 26(A) of WL (P) Act are yet to be issued for all the 4- sanctuaries, proclamation by Collector under Section 21 has been issued and required enquiries are in progress. The PAS are isolated as "Islands" amidst agricultural land and human settlements. These are under tremendous stress. Man and animal conflict is on the rise. Areas with actual and potential conflicts with surrounding population, unauthorized collection of timber, fuel wood, NWFP beyond sustainable limits have been identified and efforts are on to have a harmonious balance.

In addition to in-situ conservation efforts, Sepahijala Zoo has been established for ex-situ conservation measures. The zoo houses about 558 animals (as on 01-08-2011) and birds belonging to 56 faunal species. The captive breeding programme on selected 4 species viz. spectacle langur, clouded leopard conservation, pigtail macaque and binturong along with awareness promotion efforts have been by and large successful. The number of visitors has been constantly increasing in Sepahijala Wildlife Sanctuary and Sepahijala Wildlife Zoological Park. During 2014-15, about 38,55,056 lakh visitors visited and revenue earned was Rs.946.22 lakh.

