

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**RAJYA SABHA**  
**STARRED QUESTION NO. 4**  
TO BE ANSWERED ON 20.07.2023

**Biodiversity Heritage Sites**

\*4. SHRI ANEEL PRASAD HEGDE:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) the number of Biodiversity Heritage Sites notified as per Section 37 of Biological Diversity Act 2002;
- (b) the details of these sites which are notified because of rich wealth of agro-diversity contained therein, as is the case with several pockets in India;
- (c) the plans of Government for selecting and notifying more such sites to protect India's rich heritage of agro-diversity; and
- (d) whether Government has any schemes running to support farmers who are into seed conservation work; and
- (e) if so, the details thereof, if not, the reasons therefor?

**ANSWER**

**MINISTER FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE**  
**(SHRI BHUPENDER YADAV)**

- (a) to (e): A statement is laid on the table of the House.

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**Statement referred to in reply to parts (a) to (e) of Rajya Sabha Starred Question No. 4 to be answered on Thursday, the 20<sup>th</sup> July 2023 on “Biodiversity Heritage Sites” by Shri Aneel Prasad Hegde**

(a), (b) & (c) Biodiversity Heritage Site is a unique conservation approach recognised under the Section 37 of the Biological Diversity Act, 2002. Biodiversity Heritage Sites have rich biodiversity with wild as well as domesticated species; high endemism; rare and threatened species, keystone species, species of evolutionary significance, wild ancestors of domesticated/cultivated species; fossil beds; cultural, ethical or aesthetic values for maintaining cultural diversity, with or without long human association with them.

As per Section 37 (1) of the Biological Diversity Act, 2002 the State Government may, from time to time in consultation with the local bodies, notify in the Official Gazette, areas of biodiversity importance as Biodiversity Heritage Sites.

So far forty-four (44) Biodiversity Heritage Sites have been notified by sixteen (16) states. The details of these sites are at **ANNEXURE**.

(d) & (e) The Government of India is creating awareness on conservation of plant genetic resources including seeds of farmers' varieties and landraces through the schemes like Tribal Sub-Plan, North-Eastern Hill Region and Scheduled Caste Sub Plan. A total of 233 most potential varieties of different crops identified by farmers are being conserved through on-farm cultivation, value chain and marketing involving Self Help Groups and Farmer Producer Organizations (in seven states including Assam, Himachal Pradesh, Rajasthan, Uttarakhand, Uttar Pradesh, Madhya Pradesh and Chhattisgarh) by National Bureau of Plant Genetic Resources - Indian Council for Agricultural Research, New Delhi.

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**Annexure**

<b>Name of Biodiversity Heritage Site</b>	<b>Area (ha)</b>	<b>District</b>	<b>Site details</b>
1. Majuli River Island	87500	Majuli, Assam	Majuli River Island in River Brahmaputra is the largest river island in India. The fertile floodplains and highly productive wetlands support a wide variety of resident and migratory birds. More than 250 species of birds have been recorded. These include the two globally endangered species of vultures (Oriental White-backed Vulture and Slender Billed Vulture), two endangered species (Greater Adjutant and Bengal Florican) and 9 vulnerable species (Spot-billed Pelican, Lesser Adjutant, Baer's Pochard, Pallas's Fish-Eagle, Greater Spotted Eagle, Swamp Francolin, Marsh Babbler, Jerdon's Babbler and Black-breasted Parrotbill). Majuli has been categorized as an Important Bird Area (IBA).
2. Borjuli Wild Rice Site	0.41	Sonitpur, Assam	This BIODIVERSITY HERITAGE SITE has a good population of wild species of rice – <i>Oryza rufipogon</i> . This is a unique site due to population richness of this species, but both are vulnerable to climate change and anthropogenic activities. The species ( <i>O. rufipogon</i> ) possess genes for disease and pest resistance, tolerance to submergence and salinity. Its in-situ conservation for evolutionary process and adaptation to changing climate is important. <i>Oryza rufipogon</i> , the progenitor of present-day cultivated rice, <i>O. sativa</i> , is one of the most studied wild species of rice. It is a perennial plant commonly found in a marsh or aquatic habitats of eastern and southern Asia. The seeds have a tendency to shatter as soon as they mature. It is tolerant of flooding and acidic soils.
3. Hajong Tortoise Lake	526.78	Dima Hasao, Assam	This lake is a natural habitat of Critically Endangered freshwater 'Black Softshell turtle' <i>Nilssonina nigricans</i> and Endangered 'Indian Peacock Softshell turtle' <i>Nilssonina hurum</i> besides other major flora and fauna.
4. Purvatali Rai	0.73	North Goa, Goa	The area is unique and has ecologically fragile ecosystems with significant cultural, ethical and aesthetic value. This sacred

Name of Biodiversity Heritage Site	Area (ha)	District	Site details
			grove has more than hundreds of different floral species with the potentiality of medicinal uses for human as well as other animals. The area has a variety of wild flowers, wild vegetables, orchids, herbal medicines and edible tubers.
5. Sacred Grove at Sural Bhattori Monastery	0.6	Chamba, Himachal Pradesh	A patch of <i>Betula utilis</i> or Bhojpatra trees with some interspersed Willow trees, shrubs and herbs: <i>Rosa</i> species, <i>Lonicera</i> species, <i>Sorbus</i> species, <i>Festuca</i> species, <i>Primula denticulata</i> , <i>Polygonatum verticillatum</i> , <i>Plantago asiatica</i> , <i>Heracleum candicans</i> , <i>Berberis</i> species, <i>Artemisia</i> species, <i>Bunium persicum</i> etc. Major faunal species, in the surrounding area: Snow Leopard, Brown Bear, Tibetan Wolf, Ibex etc
6. High Altitude Meadow, Hudan Bhattori	8.74	Chamba, Himachal Pradesh	Cotoneaster species, <i>Lonicera</i> species, <i>Sorbus</i> species, <i>Primula denticulata</i> , <i>Picrorhiza kurroa</i> , <i>Anemone</i> species. Iris species, <i>Artemisia</i> species. <i>Lonicera</i> species, <i>Bunium persicum</i> , <i>Jurinea macrocephala</i> , <i>Dactylorhiza haragirea</i> , <i>Aconitum heterophyllum</i> etc. Major faunal species, in the region: Snow Leopard, Brown Bear, Black Bear, Tibetan Wolf, Himalayan Marmot, Ibex and Royle's Pika.
7. Birch-pine Forest Patch, Nain Gahar	12.22	Lahaul & Spiti, Himachal Pradesh	Main trees are Himalayan Birch ( <i>Betula utilis</i> ) and Blue Pine ( <i>Pinus wallichiana</i> ). A few middle aged trees of West Himalayan Spruce ( <i>Picea smithiana</i> ), Deodar ( <i>Cedrus deodara</i> ) and Juniper ( <i>Juniperus</i> species) are interspersed in the site. Besides. Willow ( <i>Salix</i> species) and Sea Buckthorn ( <i>Hippophae salicifolia</i> ) are also present in the site. The site also includes a very good patch of grassy area, which supports a very good population of important medicinal and aromatic plants like <i>Picrorhiza kurroa</i> , <i>Dactylorhiza hatagirea</i> , <i>Aconitum heterophyllum</i> , <i>Podophyllum hexandrum</i> , <i>Aconitum violaceum</i> , <i>Bunium persicum</i> , <i>Hippophae rhamnoides</i> etc.
8. Nallur tamarind	21.85	Bengaluru, Karnataka	It is popularly believed to be a relic of the Chola Dynasty that ruled nearly 800 years

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groves			ago, is spectacle of awesome wonder.
9. Hogrekan	1015	Chikmagalur, Karnataka	The area has unique Shola vegetation and grass land with number of floral species which are unique and having lot of medicinal value. Hogrekan is moderately wooded land and its vegetation is of dry deciduous type.
10. University of Agricultural Sciences, GKVK Campus	167	Bengaluru, Karnataka	The GKVK campus is considered one of the greenest areas in Bengaluru. Biological diversity of this campus constitutes a critical repository of various forms of flora and fauna.
11. Ambaragudda	3857.17	Shimoga, Karnataka	It is a revenue land located between Sharavathi Wild Life Sanctuary and Someshwara Wildlife Sanctuary. It has Shola vegetation which is primitive vegetation in the Western Ghat and also has grasslands.
12. Asramam	57.33	Kollam, Karnataka	This site hosts a unique diversity of Mangrove species with diverse flora and fauna. Most importantly, the site has the rare and endangered heritage trees of <i>Syzygium travancoricum</i> which is listed as critically endangered in IUCN Red List.
13. Naro Hills	200	Satna, Madhya Pradesh	Naro Hills is home to various floral and faunal species. Naro Hills is part of Vindhya hills region and a dry deciduous forest. The Vindhya region harbours several species of medicinal and economically important plants.
14. Patalkot	8367.49	Chhindwara, Madhya Pradesh	Terrain of 1700 feet deep valley and ecosystem of estimated age of 6 Million years and species of rare flora and fauna including rare Bryophytes and Pteridophytes;
15. Amarkantak	7681.5	Amarkantak, Madhya Pradesh	Site is situated on the Maikal mountain range which links the Vindhya and Satpura mountain ranges, at about 1067 meters above mean sea level.
16. Glory of Allapallii	6	Gadchiroli	It is a reserved forest being preserved as natural forest having biological, ethnic and historical values.
17. Bambarde Myristica Swamps	2.59	Dodamarg, Maharashtra	These are known to be the remnants of primeval forests of the Western Ghats. In addition, there are giant climbers, medicinal plants, edible fruits and wild vegetables.

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			The wild gene pool of <i>Myristica fatua</i> (wild nutmeg), an economically important spice, is also preserved here.
18. Ganeshkhind Garden	33.01	Pune, Maharashtra	There are number of plant types developed through genetic breeding programme within the garden. The site also has 165 wild plant species including 48 medicinal varieties, rare and endangered plant species. The garden has high density of <i>Swietenia macrophylla</i> and <i>Ficus bengalensis</i> with ideal conditions for their natural regeneration.
19. Landorkhori	8.08	Jalgaon, Maharashtra	The site is habitat of wild animals and rare species of plants and grass. The natural plantation of Bori ( <i>Zizyphus jujuba</i> ) tree is unique and survived since old ages.
20. Schisturahiran yakeshi	2.11	Sindhudurg, Maharashtra	The fish <i>Schisturahiran yakeshi</i> was spotted for the first time in a pond at the Mahadev Temple at Amboli in Sindhudurg district, Western Ghats. The 2.11 ha area has now been declared as ' <i>Schistura hiranyakeshi</i> Biological Heritage Site' in April 2021. It has become the 5th such heritage site in the state of Maharashtra.
21. Dialong Village	1135	Tamenglong, Manipur	The Rongmei tribes of Dailong and other villages of Tamenglong district were conserving forest in the form of sacred groves known as "Raengan", meaning gateway conservation (resting) site of the farmers which is precursor to all conservation activities of these tribes in Tamenglong district. The type of habitats includes Montane Wet Temperate Forest, Tropical Evergreen Forest, and Semi Evergreen Forest and Riparian forest.
22. Khlaw Kur Syiem Kmielng	16.05	Ri-Bhoi, Meghalaya	It is a mosaic of natural habitats along with significant diversity of life forms. It is also an old Sacred Grove.
23. Mandasaru	528	Kandhamal, Odisha	The gorge provides congenial habitat for fishing Cats, and Small clawed otters. One of the Eastern Ghats Endemics the Golden Geckos, having a good population inside the gorge. The gorge is also a sacred site for the local communities as they worship and conserve a fern ( <i>Patharagirdhini/ Drynaria quercifolia</i> ) in one of the hill tops.

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24. Mahendragiri	4250	Gajapati Maharastra	Mahendragiri hill is situated at an elevation between 700-1501 m above mean sea level in Gajapati district of Odisha. With increase altitude, the hill complex demonstrates several micro climatic conditions like tropical shola, tropical semievergreen, tropical moist-deciduous & tropical dry deciduous.
25. Gandhamardan Hill	18964	Bolangir and Bargarh Maharastra	The site has its socio-economic, ecological and biological significance and long history of human association
26. Tungkyong Dho	0.0650	North Sikkim, Sikkim	TungkyongDho (Lake) is believed to be one of the oldest natural dho (lake) directly related to the Hee-Youngmingmoo clan of Lepcha community in Dzongu. Dzongu valley is a specially protected area for aboriginal/ indigenous primitive tribes considered to be the original inhabitant of Sikkim called as Lepchas and a very unique cultural and historical significance.
27. Arittapatti	193.215	Madurai, Tamil Nadu	This biodiversity heritage site has rich biological and historical significance with the presence of around 250 bird species including 3 flagship Raptor species - Laggar Falcon, Shaheen Falcon, Bonelli's Eagle and wildlife like Indian Pangolin, Python and Slender Loris.
28. Ameenpur Lake	229.05	Sangareddy, Telangana	It is an urban wetland providing refuge to 8 mammalian species, 170 avifauna (migratory and resident), 46 herpeto-fauna, 9 varieties of fish, 143 invertebrates and 250 species of rare and common plants
29. Gharial Rehabilitation Centre	10	Lucknow, Uttar Pradesh	It is a centre established for conservation and rehabilitation of critically endangered species of Gharial.
30. Baramura waterfall	150	Khowai, Tripura	The highest natural waterfall in Tripura. Critical habitat for rare wildlife. Rich in floristic diversity. Habitat for many stream water favoured fauna
31. Unakoti	40	Unakoti, Tripura	Cultural and religious significance, Example of Ethno-religious aspects, Sacred trees and stones, rich forest flora and fauna, Source of natural stream flow has diverse ecosystem services, Site of semi wild, wild and domesticated ornamental plants.
32. Silachari	100	Gomati,	Only natural cave of Tripura. Unique

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Caves		Tripura	habitat for several threatened cave bat species in Tripura. Rich floristic diversity. Ethno-religious and cultural significance. Critical habitat for rare wildlife. Stream rich in aquatic fauna.
33. Debbari or Chabimura	215	Gomati, Tripura	River forest ecosystems at Debbari with rich fauna and flora. Unique habitat for threatened plants of Tripura like Dhup tree and cane resources of India. Unique breeding habitat for threatened fishes of Tripura.
34. Betlingshib & its surroundings Tonglu	350	North district, Tripura	The highest peak of Tripura allows unique habitat ecosystem. Due to change in altitude, topography and climate the vegetation is totally unique compared to the mainland of the state. Suitable habitat for several red listed flora and fauna. Medicinal plant conservation area.
35. Tonglu	230	Darjeeling, West Bengal	It is a Medicinal Plant Conservation Areas
36. Dhotrey	180	Darjeeling, West Bengal	It is a Medicinal Plant Conservation Areas
37. Chilkigarh KanakDurga	22.62	Jhargram, West Bengal	Chilkigarh Kanak Durga Sacred Grove is a remnant forest with traditional beliefs and taboos of local inhabitants and rich in biodiversity.
38. State Horticulture Research and Development Station	39.61	Nadia, West Bengal	Rich Heritage of indigenous germplasm of horticulture and medicinal plants. It provides good habitat for good number of avifauna, butterflies and other insects
39. Char Balidanga	46.862	Nadia, West Bengal	Habitat of nearly 100 species of avifauna with other Schedule-I fauna like Golden Monitor Lizard, smooth coated Otter, Golden Jackal etc.
40. Amkhoi Wood Fossil Park	10 0.667	Birbhum, West Bengal	The site has unique geological and palaeobotanical features. Well preserved angiosperm wood fossil representing the existence of a forest dating back to the late Jurassic age
41. Baneswar Shiva Dighi	0.667	Coochbehar. West Bengal	It offers refuge to Black Softshell Turtle Nilssonina nigricans listed under Appendix I of CITES and extinct in the wild category



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			of IUCN.
42. Namthing Pokhari	4.819	Darjeeling, West Bengal	Habitat for Himalayan Newt, which is an evolutionary significant species originated during the early-middle Miocene and endemic to the Indo-Nepal Himalayan region.
43. Birampur-Baguran Jalpai	95.91	PurbaMedini pur, West Bengal	Intertidal coastal stretch of nearly 7.3 km provides the habitat of <i>Ocypod macrocera</i> , <i>Dotillamyctiroides</i> , <i>Ucalactea</i> , <i>Varanus</i> sp., <i>Herpestessp</i> , <i>Canisaureus</i> , <i>Felischaus</i> and many other varieties.
44. Haldir Char Island	4.73	PurbaMedini pur, West Bengal	The land is a mangrove swamp with tidal influence and sustains littoral fauna. The peripheral part, the land water interface, is populated with <i>Saccharum spontaneum</i> , <i>Phragmites karka</i> , <i>Vetiveria zizanioides</i> , effective in controlling erosion. The char land inside is populated with <i>Avicennia marina</i> , <i>Avicennia officianalis</i> , <i>Sonneratia apetala</i> , <i>Bruguieragymnorhiza</i> , <i>Aegiceras corniculatum</i> , and mangrove associates like <i>Derris scandens</i> <i>Thespesia populnea</i> , <i>Cryptocory neciliata</i> etc.

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