

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE

LOK SABHA
UNSTARRED QUESTION NO. 1432
TO BE ANSWERED ON THE 07th DECEMBER, 2021

LAND UNDER AGROFORESTRY

1432. SHRI LAVU SRI KRISHNA DEVARAYALU:

Will the Minister of AGRICULTURE AND FARMERS WELFARE कृषि और किसान कल्याण मंत्री be pleased to state:

- (a) whether the Government has any state-wise data on actual land under agroforestry and the potential land which can be brought under agroforestry in each state;
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) whether the Government has undertaken any steps to ensure uniformity in Guidelines for exemption of agroforestry tress species amongst states;
- (d) if so, the details thereof and if not, the reasons therefor;
- (e) whether the Government is formulating structured Guidelines for insurance and credit access in the area of agroforestry, if so, the details thereof and if not, the reasons therefor;and
- (f) whether the preparation of regional models of agroforestry is being undertaken by the Government for the benefit of small, marginal and large farmers who are presently not covered by the policy, if so, the details thereof and if not, the reasons there for?

ANSWER

MINISTER OF AGRICULTURE AND FARMERS WELFARE

कृषि एवं किसान कल्याण मंत्री (SHRI NARENDRA SINGH TOMAR)

- (a) to (b): State-wise data on actual land brought under agroforestry under the Sub Mission on Agroforestry scheme is as per (**Annexure-I**).

- (c) to (d): Under the Sub Mission on Agroforestry scheme, liberal felling and transit rules are a precondition for availing the benefit of the programme. The States/ Union Territories (UTs) concerned accordingly relax their existing policy and regulatory framework for the selected tree species suitable to their agro-climatic conditions in order to motivate farmers to take up tree plantation on farm land.
- (e): At present, there is no specific provision for insurance and credit access in the area of agroforestry under the extant Scheme.
- (f): Yes Sir. Central Agroforestry Research Institute Jhansi, U.P. under Indian Council of Agricultural Research has developed 35 agro forestry models suitable for different agro-ecological regions and land use conditions for the benefit of farmers. The details of agroforestry models are at **(Annexure-II)**.

Annexure-I

Table I: State-wise details of Actual land brought under Agroforestry from 2016-17 to 2020-21

Sl. No.	Name of Implementing States/UTs	Actual area covered under Agroforestry (In Ha)
1	Mizoram	785.00
2	Meghalaya	0.00
3	Nagaland	1075.00
4	Manipur	*
5	Andra Pradesh	567.65
6	Bihar	0.00
7	Chhattisgarh	3921.05
8	Gujarat	34306.30
9	Haryana	300.00
10	Himachal Pradesh	1036.00
11	Jharkhand	392.00
12	Jammu & Kashamir	5902.78
13	Karnataka	21963.40
14	Kerala	110.00
15	Madhya Pradesh	1345.00
16	Maharashtra	1242.36
17	Orissa	3063.00
18	Punjab	9808.32
19	Rajasthan	3922.75
20	Tamil Nadu	0.00
21	Telangana	932.00
22	Uttar Pradesh	3136.67
23	Ladakh	**
Grand Total		93809.27

Note: UT of Ladakh** is associated with the scheme in 2020-21 and State of Manipur* from the CFY (2021-22).

Annexure-II

Table II: Details of Agro forestry Models developed by ICAR-CAFRI for different agro-climatic zones

	Region	Agro-forestry System	Crop combination
Himalayan Region			
Himachal Pradesh	Sub-temperaterain	Agri-silviculturesystem	Meliacompositawithvegetablecropsviz.,cauliflower,pea,tomatoand capsicum.
J&K	Kashmirvalley	AlleyCropping	Elms(<i>Ulmuswallichiana</i>)withKharifandRabicrops
	TemperateKashmir	Horti-agri-pasturesystem	Applewithbeans& peas,aromaticcropsARETmesiafollowed byLucerne(<i>Medicagosativa</i>).
Assam	EasternHimalayas	Horti-agri-system	Coconutwithriceseedlings,foddermaize,nuts.
		Agro-forestrysystem	Coconutwithintercroppingof turmeric
		Agro-forestrysystem	Gmelinaarboreawithintercroppingof turmeric.
		Agro-forestrysystem	Jackfruitwithsesame& rapeseed
		Agri-silviculture	AcaiamangiumwithhybridNapiergrass.
	Region	Agro-forestry System	Crop combination

Himachal Pradesh	Mid-hills of Northwestern Hi	Silvi-Pastoral system	Morus alba with intercropping of Napier grass
Indo-Gangetic Region			
Punjab		Agro-forestry System	Poplar with summer & winter intercrops; Clonal Eucalyptus plantation with winter intercrops at younger stage
Uttarakhand	Tarai and NW Himalaya	Agri-silviculture system	Bamboo species viz. <i>Bambusa balcooa</i> , <i>B. tulda</i> , <i>B. nutan</i> , <i>D. asper</i> , with intercrops like wheat, soybean, rapeseed, bean, mustard; Poplar based with intercrops sugarcane, soybean and wheat at initial and later years of years and turmeric in later years.; Block & boundary plantation of
	NW plain zone	Plantation	High density short rotation plantation of Poplar and eucalyptus, with wheat as intercrop.
Bihar	NW alluvial plain of Bihar	Agro-forestry	Poplar based agro-forestry system with wheat crop
		Agri-horticultural system	Apple plantation with intercropping of turmeric, ginger & colacasi etc.
		Agri-horticultural system	Litchi with intercropping of turmeric, ginger & elephant foot yam

	Region	Agro-forestry System	Crop combination
Uttar Pradesh	Sodiclands of Eastern U	Agri-horti-silviculture system	Casurinaequisitifoliawithguava& turmeric.
		Silvi-pastoral	DalbergiasissoowithIntercrops like <i>Pennisetumpurpurium</i> , <i>Brachiaranutica</i> and <i>Pani</i>
Humid & Sub-humid region			
	Red & laterite soil region	Agri-horti-silvisystem	MangowithEucalyptusMango/Gauva /berwithsuitableintercrops
	Alluvial soil	Agri-horti-silvisystem	Mangowith <i>Dysoxylum</i> spp. and Kadamb (<i>Anthocephalus cadamba</i>)
		Agri-hortisystem	Gauva/Ber/mangowithsuitableintercrops
		Agri-silvisystem	Kadambwith paddy&oilseedcroprotation
		Home stead agro-forestry	FruittreeswithKitchenGarden
Odisha		Agri-silviculturalsystem	AcaciamangiumwithintercropofSesame
Jharkhand			Gmelinawithgroundnut. Subaboolwithcolacassiasintercrop Bamboowithintercrop

	Region	Agro-forestry System	Crop combination
Arid & Semi-Arid region			
	Rainfed North	with moisture conservation	Ailanthus excelsa with intercrop of Greengram, Cluster bean, Cowpea and T. etc.
	Rainfed Trees	Multi-purpose trees	MPTS Neem (<i>Azadirachta indica</i>), Ardu (<i>Ailanthus excelsa</i>)
	Arid & semi-arid	Bio-fence	Acacia Senegal as bio-fence of arid fields.
	Degraded wasteland	Silvi-pasture model	Dichrostachys cinerea (nutans) with grass of Cenchrus ciliaris.
Haryana	Haryana	Agro-forestry system	Poplar with Agri-culture crops
	Shallow soils,	Plantation	<i>Azadirachta indica</i> , <i>Eucalyptus camaldulensis</i> , <i>Melia azadirachta</i> , <i>Tectona grandis</i> , <i>Hardwickia binnata</i> , <i>Acacia nilotica</i> and
	Nagpur, MH	Agro-forestry	Teak based plantation with Black gram as inter-crop One ; Gabion dam with clay blanketing and one counter dam Teak plantation on
	Semi-arid	Plantation	Neem Plantations
		Agri-horticulture system	Tamarind with suitable intercropping of red gram & henna.
		Silvi-medicinal system	Medicinal Trees Terminalia bellirica & Amla with intercropping of medicinal herbs

		Agri-silviculture system	Rainfed castor with Pongamia plantation
	Region	Agro-forestry System	Crop combination
Telangana	Red-sandy loam soil-S Telangana	Agri-silviculture system	Rabi-sweet sorghum with Pongamia trees
	Marginal Lands	Agri-silviculture system	Nutrient Management "Panagmia with Pearl millet" Finger Millet with Melia spp.
	Jabalpur	Agri-silviculture system	Eucalyptus with suitable crops wheat, soybean, mustard, gram, chickpea etc.
	Kymore Plateau, central India	Agri-horticultural system	Gauva with wheat & mustard crops as intercropping.
		Horti-medicinal system	Amla with turmeric as intercrop.
		Agri-silviculture system	Dalbergia sissoo with paddy-wheat
Tropical Region			
Karnataka	Hill zone	Agro-forestry system	Sapota, Teak & filed crop. Teak with Sorghum & groundnut as intercropping.
	Degraded soils	Horti-silvi-pastoral system	Eucalyptus with Sapota. Melia azadirach with soybean as intercrop.
	Western agro-	Multifunctional agro-forestry system	<i>Meliadubia</i> + Banana
	NE-Degraded lands	Horti-pasture	Coconut/Guava/Mango with fodder crops.

Tamil Nadu	NE-Degraded Calcareous soil	Silvi-pasture	silvipasture with <i>Leucaena leucocephala, Gliricidia sepium, Ingadulces, Erythrina indica, Albizia lebeck</i>
	Region	Agro-forestry System	Crop combination
Kerala	Humid Tropics	Multipurpose trees	Blackpepper (<i>Piper nigrum</i>) cultivation with support tree (e.g. <i>Erythrina, Moringa, Ceiba, Ailanthus</i> etc.).
		Silvi-pasture system	Napier Grass + trees (mulberry etc.) + Calliandra spp.
		Hedge-row fodder	Mulberry and calliandra in mature coconut gardens
Maharashtra	Konkan Region	Horti-agri system	Mango based with suitable intercrop.
			Cashew based with agricultural intercrops.

Source: Agro forestry Technologies for Different Agro-climatic Zones of Country, ICAR-CAFRI, Jhansi.