

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION No. 2404
TO BE ANSWERED ON 01.08.2022

Research and Development Schemes

2404. SHRI SANJAY KAKA PATIL:

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

- (a) the details of activities that have been undertaken as part of the Research & Development Scheme for Conservation and Development during the last three years;
- (b) the details of funds allocated and utilised in this regard during the said period;
- (c) whether the Government has undertaken any activities under the Scheme in relation to the effects of climate change; and
- (d) If so, the details thereof and if not, the reasons therefor?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

(SHRI ASHWINI KUMAR CHOUBEY)

(a) “R&D Scheme for Conservation and Development” supports and funds research projects on identified thematic areas to various research Institutions/Universities. During the last three years, a total 22 research projects under different thematic area have been approved by the Ministry. The details are annexed.

(b) Details of the funds allocated and utilized during the last three years are as follows:

(₹ in Crore)

| Years | Allocated Amount | Utilized Amount |
|---------|------------------|-----------------|
| 2019-20 | 4.50 | 4.49 |
| 2020-21 | 3.00 | 2.58 |
| 2021-22 | 5.00 | 4.21 |

(c) & d) Under R&D Scheme, “Climate Change: Vulnerability & Risk Assessment, Process, Mitigation and Adaptation” is one of the thematic area, wherein Ministry is also providing financial assistance to the specific research projects. 03 projects have been approved during the last three years and the details are as follows:

| Year | S.No. | Title of the Project | Organization/ University |
|-------------|--------------|---|--|
| 2020-21 | 1. | Microbial communities in changing climatic regime: Analysis of primary and secondary risk factors | Sri Venkateswara College, University of Delhi, Delhi |
| | 2. | NIR Light reflective Nano composite plastering mortar/coating towards climate change adaptation in buildings | Mepco Schlenk Engineering College, Sivaski, Tamil Nadu |
| 2021-22 | 3. | Understanding the Relationship between Forest and Water in the context of Changing Climate Variables of Narmada Catchment | Indian Institute of Forest Management, Bhopal, M.P. |

Annexure

The details of 22 research projects under different thematic area which have been approved by the Ministry during the last three years are as under:-.

| Year | S.No. | Thematic Area | Title of the Project | Organization |
|----------------|--------------|--|--|--------------------------------|
| 2019-20 | 1. | Conservation and Management of Landscapes and Ecologically sensitive areas including issues of sustainable livelihoods | Ecology and Recovery of critically endangered Vulture species in Pong Dam Protected Area (PA) and its Eco Sensitive Zone (ESZ) in Himachal Pradesh. | Wildlife Institute of India |
| | 2. | Biodiversity Conservation including Issues of Alien and invasive species and Human-wildlife Interface | An integrated approach for conservation of Takin (<i>Budorcastaxicolor</i>) in North East India: Linking species ecology and traditional ecological knowledge. | Wildlife Institute of India |
| | 3. | Biodiversity Conservation including Issues of Alien and invasive species and Human-wildlife Interface | Assessing fine scale distribution pattern, population and habitat status of northern Swamp Deer (<i>Rucervusduvauceli</i>) across upperGangetic Plains of north India. | Wildlife Institute of India |
| | 4. | Biodiversity Conservation including Issues of Alien and invasive species and Human-wildlife Interface | Securing habitats for threatened mountain ungulates through robust population assessment and conservation planning. | Wildlife Institute of India |
| | 5. | Biodiversity Conservation including Issues of Alien and invasive species and Human-wildlife Interface | Assessment of Disease Prevalence in Ungulates in Protected Areas of North East India. | Wildlife Institute of India |
| | 6. | Biodiversity Conservation including Issues of Alien and | Quantification of the Economic and Ecological Services of Eco-tourism as a Livelihood Option for the Sustainability of the Rhino Population | Rain Forest Research Institute |

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| | | invasive species and Human-wildlife Interface | in Manas Tiger Reserve, Assam. | |
| | 7. | Pollution Prevention - Clean Technologies and Processes, Cleaner Production, 3Rs, Resource Efficiency, Waste Minimisation and Management, etc. | Design, Development and Evaluation of Indigenous Sensors Based Air Quality Monitoring System and Data Analysis Using Deep Learning. | St. Peters Institute of Higher Education and Research |
| | 8. | Biodiversity Conservation including Issues of Alien and invasive species and Human-wildlife Interface | Population Status, Ecology and Conservation of the Indian Swiftlet (<i>Aerodramus unicolor</i>) West Coast and Offshore Islands in the Western Ghats of Maharashtra. | Salim Ali Centre for Ornithology and Natural History |
| | 9. | Biodiversity Conservation including Issues of Alien and invasive species and Human-wildlife Interface | Ecological assessment of endemic and threatened Laughing thrushes of the Western Ghats to develop conservation plan for securing their population and habitats. | Salim Ali Centre for Ornithology and Natural History |
| | 10. | Pollution Prevention - Clean Technologies and Processes, Cleaner Production, 3Rs, Resource Efficiency, Waste Minimisation and Management, etc. | Sustainable utilisation of Industrial waste materials for the development of cementlessferrocement precast panels for Impact load. | MepcoSchlenk Engineering College |
| | 11. | Biodiversity Conservation | Emerging infectious disease in birds across a gradient of alien invasive | Indian Institute of Science Education |

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|----------------|-----|---|--|--|
| | | including Issues of Alien and invasive species and Human-wildlife Interface | trees mapped using Remote Sensing on Shola Sky Islands. | and Research |
| | 12. | Socio-economic issues of environment and Sustainable Development | Assessment of Landfill Gas Recovery and Utilization and Reduction of GHG Emission at the Madurai landfill, Tamil Nadu, India. | Thiagarajara College of Engineering |
| | 13. | Biodiversity Conservation including Issues of Alien and invasive species and Human-wildlife Interface | Tracking and assessment threats of highly critically endangered scaly giant Chinese Pangolin (<i>Manis pentadactyla</i>) with special reference to sensitization of local communities for its long-term conservation in north-eastern states of India. | Amity University |
| | 14. | Biodiversity Conservation including Issues of Alien and invasive species and Human-wildlife Interface | Assessment of Changes for the Conservation and Management of Sathyamangalam Tiger Reserve. | Pondicherry University |
| | 15. | Socio-economic issues of environment and Sustainable Development | Development of low energy- low carbon ECO cementitious binders via synergistic use of low graded industrial wastes for sustainable development. | CSIR Central Building Research Institute |
| | 16. | Socio-economic issues of environment and Sustainable Development | Development of performance improved precast lightweight composite materials using solid waste. | CSIR Central Building Research Institute |
| 2020-21 | 17. | Climate Change: Vulnerability & Risk Assessment, Process, Mitigation and Adaptation | Microbial communities in changing climatic regime: Analysis of primary and secondary risk factors. | Sri Venkateswara College |
| | 18. | Climate Change: Vulnerability & Risk Assessment, Process, | NIR Light reflective Nano composite plastering mortar/coating towards climate change adaptation in buildings. | MepcoSchlenk Engineering College |

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|---------|-----|---|--|---|
| | | Mitigation and Adaptation | | |
| 2021-22 | 19. | Sustainable Management of Natural Resources | Habitat distribution modelling and reinforcement of two threatened trees in the Kerala region of the Western Ghats for the improvement of their conservation status. | Jawaharlal Nehru Tropical Botanic Garden & Research Institute |
| | 20. | Ecosystems Conservation & Management (Mountain, Forest, Coastal, Wetlands, Pastoral, etc.) and Evaluation of Ecosystem Services | Exploration And Conservation Of Edible And Medicinal Mushroom Diversity And Documentation Of Ethno Mycological Knowledge From Forests Of Coimbatore District Of Western Ghats For Restoration Of Nutritional Security Through Recycling Of Agro Forest Wastes. | Tamil Nadu Agricultural University |
| | 21. | Climate Change: Vulnerability & Risk Assessment, Process, Mitigation and Adaptation | Understanding The Relationship Between Forest And Water In The Context Of Changing Climate Variables of Narmada Catchment. | Indian Institute of Forest Management |
| | 22. | Biodiversity Conservation including Issues of Alien and invasive species and Human-wildlife Interface | An exploration of the mangroves of the Eco-Sensitive Zone of Bhadrak wildlife division (Odisha) for their fungal endophyte diversity. | Vivekananda Institute of Tropical Mycology |
