GOAL 15 : LIFE ON LAND

ANDHRA PRADESH

As per Andhra Pradesh's SDG Vision Document "ACHIEVING SUSTAINABLE DEVELOPMENT GOALS 2030", detailing the state's strategy to achieve benchmarks for SDG 15 - LIFE ON LAND, the state has focused on the following major policies and strategies-

- Initiatives of "Neeru-Chettu" program to improve green cover, and Nagarvanams and Pallevanams to improve green cover outside forest areas,to spread awareness and provide recreational space
- National Afforestation program (NAP), Project Tiger, Project Elephant, National Agroforestry Policy, conservation of forest through Joint Forest Management (JFM).
- Sustainable management of forests, combat desertification, halt and reverse land degradation and halt biodiversity loss
- Restore mangroves in coastal areas and incentivize agroforestry to increase forest cover
- Green cover surveillance and geotag to monitor plant species
- Integration, reforms and strengthening of existing regulatory and policy framework to protect, restore and promote sustainable use of terrestrial ecosystems
- Soil Moisture Conservation activities to enhance the water table, arrest desertification and assist natural regeneration
- Special efforts to protect Red Sanders from illegal felling and smuggling jointly led by The Red Sanders Anti-Smuggling Task Force with the Police and Forest Departments.

KARNATAKA

As per Karnataka's SDG Vision Document, detailing the state's strategy to achieve benchmarks for SDG 15 - LIFE ON LAND, the state has focused on the following approaches-

- State has formulated a number of afforestation schemes funded by the state government in addition to central initiatives to green vacant wastelands, institutional wastelands, urban spaces, agricultural wastelands, rivet catchment areas, assessed waste -lands without tree growth, and tank foreshore areas with appropriate tree species by involving local bodies and Village forest committees, etc. to achieve the target of 33% of green cover.
- Undertaking regeneration works under different ecosystems to restore the original structure and functions of degraded areas. Natural regeneration can be achieved through rigid protections from grazing and fire. Some of the strategies are: Increase in forest tree cover in degraded areas and mountain areas; restoration of water bodies; conservation of local wildlife species, restoration of the red list of wild animals; biodiversity conservation- access to benefit sharing agreements, recovery of RET species; reduction in traded wildlife that was poached or illicitly trafficked.
- Achieving tree cover outside the Forest area by urban planting on a massive scale with city municipal bodies and the Horticulture department creating forestry in the towns and municipalities. The department has a well-structured social forestry wing to promote agro-forestry work that can assist in taking up massive agro-forestry programs under different agro-climatic conditions.

TELANGANA

As per Telangana's SDG Implementation Document 2018, the state's strategy to achieve benchmarks for SDG 15 - LIFE ON LAND, the state has focused on the following major policies and strategies-
- Haritha Haram (Afforestation)
- Soil and water analysis and appropriate nutrition and cropping
- Mission Kakatiya
- Development of National Parks and Sanctuaries

GUJARAT
1. **THE BHUNGROO IRRIGATION TECHNOLOGY** - (CLOSELY TIES IN WITH **SDGs 2** AND **5**)

Poor terrain conditions due to climate change made it hard for farmers to cultivate their land during the dry season. The livelihoods of women farmers who don't have land rights are particularly insecure in these conditions. The Bhungroo irrigation technology was developed as a water harvesting technique, providing a sustainable solution to continuous farming. Water is stored in the ground and then used to water crops during both dry and wet seasons. Women were trained

to run and monitor the technology and to teach others. They were made custodians of the Bhungroo technology, enabling them to play an active role in agriculture and land cultivation and uplifting their social power.

Keeping a gender centered approach, 21 Women Climate Leaders (WCLs) have been formed, who learned how to utilise and promote the technology and therefore can deliver fee-based agriculture expert advice. The system has received support and recognition from the Indian government as well as development agencies worldwide for its work on gender, climate change adaptation, and resilience. Through its application, the accessibility of land for farming has increased, permitting farmers to grow crops all year round, thus resulting in enhanced management of natural resources, improved food security, higher income from agricultural activities, and the upliftment of womens' role in their communities and families, granting them permission to participate in local decision making.

<p align="center">PUNJAB</p>

2. **PLANTATION AND BAMBOO TREE GUARD PROJECT** -

Under this mission, to save plants and promote greenery, the district administration of Bathinda has taken an initiative by making bamboo tree guards under the livelihood mission. 30,000 saplings have been planted with bamboo tree guards around them on district roads. The use of bamboo in a sustainable way as opposed to plastic or cement tree guards, as well as the employment of about 500 women (at Rs. 500 per day) to empower and support women through employment has benefitted the district. Participation of women can be seen in the form of mobilisation of women's organisations and self-help groups (SHGs).

3. **RENOVATION OF PONDS** -

Implemented by the Department of Rural Development and Panchayats, this project collects the wastewater of all streets and drains in wells by laying down a 2500 feet pipe covering the entire village. The water is treated through the cyclonic movement of wastewater and sedimentation, and is then supplied for irrigation purposes and serves as a source of drinking water for birds.

MGNREGA card holders have received employment under this project in their villages, most of whom are women. The project has been successful in providing employment opportunities to unskilled labourers, cleaning pond surroundings, and reducing final biochemical oxygen demand (BOD) levels to within permissible limits.

HARYANA

As per Haryana's 2030 Vision Document, the following programs promoting opportunities under SDG 15 - LIFE ON LAND have met with success-

- Government of Haryana has launched several environment related schemes such as the Mitigating Climate Change and Enhancing Adaptations for Farmers through Agroforestry in Haryana project and the **Har Ghar Haryali campaign**
- Districts that are significant for their flora and fauna have been declared **community reserves** to protect the environment and promote its sustainable use
- About 150 lakh seedlings are planted every year on institutional lands, panchayat lands, community lands, private farm lands, and government forest lands
- Problematic saline, alkaline soils, and sand dunes are being reclaimed to increase tree cover and mitigate climate change. Waterlogged areas have been reclaimed to carry out bio drainage plantation on them
- The Government of Haryana has taken steps to **protect endangered species** such as the vulture, leopard, softshell turtle and flap shell turtle, and to improve habitat in conservation reserves to better protect and conserve local flora and fauna
- Use of **camera traps for the census of important wildlife species** and the presence of new important species, conservation breeding of threatened, vulnerable, and endangered species, as well as restoration of habitats.

TRIPURA
4. **BIOVILLAGE AT BAJENDRANAGAR, DUKLI** -

Eco-friendly multi enterprise approaches have been undertaken to enhance the socio-economy of the village, titled "Establishment of Biovillage", with components including-

- Distribution of Bio-inputs in agricultural field to reduce the use of chemical inputs
- Distribution of LED Lights & Fans to provide comfort and reduce electricity bill
- Installation of a Bio-gas unit to reduce the dependency on LPG cylinders
- Assistance for Mushroom cultivation to create opportunity for additional income among the youth
- Distribution of Beekeeping units to enhance pollination.

The eco-friendly approach has made contributions towards the restoration of prevailing ecology, developed skills among the beneficiaries of the village, and increased monthly income significantly.

5. USE OF TERRESTRIAL ECOSYSTEM TO SUSTAINABLY MANAGE FORESTS -

- To improve the quality of river catchments, the Forest Department has started the implementation of a Rs.1000 crore JICA assisted project for sustainable catchment under which improvement of quality of forests over 52,000 hectares of degraded forests, creation of 1447 check dams, coverage of 17,760 RoFR families through Joint Forest Management Committees (JFMCs) and SHGs have been targeted, with increased use of remote sensing technology in planning and monitoring.
- The department has been facilitating cultivation, processing and trade of agar, commanding very high prices in the market and spreading awareness on the conservation of rare endangered and threatened species.
- For the success of forestry activity, the state has taken special initiatives by the involvement of people in management of forests in territorial Division and Wildlife Sanctuaries through formation of JFMCs and Eco Development Committees (EDCs). They will get usufructuary benefits in return for their conservation efforts. These development activities are done in active involvement of JFMCs involving more than 1 lakh families living near forests.
- The department is exploring ways to increase productivity of RoFR land, creation of livelihood opportunities and generation of high value products from forests.

6. DESTRUCTION OF CANNABIS AND RECLAMATION OF FOREST LAND THROUGH PLANTATION -

The objective of Biodiversity conservation is to protect and enhance wildlife and its habitats, and to promote community development activities for the local communities to turn them into partners in conservation.

Biodiversity conservation has the following sub-components - Bio-diversity research & inventory, eco-tourism development, strengthening the protected area program, eco-development, provision of wildlife management related equipment.

Identified actionable goals towards biodiversity conservation are :

- Management of habitat and corridors of elephant population using GIS, remote sensing techniques and radio collaring
- Augmentation of soil moisture regime in notified protected areas through pasture land development and construction of check dams
- Establishment of animal rescue centres for the treatment of rescued & injuredanimals for soft release
- Integrated development of awareness generation programs on wildlife heritage, encouraging visits to wildlife conservation areas, eco development & promotion of eco-tourism, and education and outreach programs
- Conservation breeding of endangered species including their release
- Establishment of a wildlife crime control unit for extending assistance towildlife preservation efforts
- Promotion of conservation of common property wildlife resources through community initiatives
- Development of an institutional mechanism for uninterrupted flow of funds toestablish and maintain Primate Foundation in Tripura.

7. IN-DEALING MAN-ANIMAL CONFLICT (IN TELIAMURA FOREST SUBDIVISION) -

Records of driving duties are maintained systematically and additionally for the elephant watchers by the Kalyanpur Range, and elephant driving kits are supplied to the staff. Tree Machans were constructed at elephant corridors along the roadside. Timely compensation was paid to the victims of elephant depredations against crop damage and house damage. Field workshops have been organised to upgrade the skill of the elephant watchers and frontline staff for elephant identification and the use of non-conventional methods of elephant driving.

An earthen check dam was constructed at Gudaibari to check the direct movement of wild elephant herds to the nearby villages. GPS Radio-Collaring of two wild elephants has also been implemented.

Output:
- Gained the confidence of front line staff in dealing with problems
- Reaction time of incidences could be minimised and all possible cases of crop damage could be attended to, thus building up a positive relationship and trust between the villagers and the Forest Department
- Reduced the change of retaliatory killing of wild elephants

- Staff welfare through kits, motorbikes, infrastructure developments, and villagers' welfare through crop compensation has affected the handling of the issue positively.

<u>WEST BENGAL</u>

8. **FOREST AND BIODIVERSITY CONSERVATION PROJECT** -

The project is implemented by the West Bengal Forest Department, and targets forestry development, biodiversity conservation and community development activities covering 23 forest divisions across 8 districts. One focus of the project is the prevention of human-wildlife conflict such as unwanted collision of villagers andelephants that could result in damaging the farm produce, including loss of lives.The project has introduced measures to mitigate the situation, such as an internalreporting system (GPS tracker, mobile app) and electric fences to protect thecommunities.

<u>ODISHA</u>

As per Odisha's SDG Indicator Framework Document, some state-sponsored schemes implemented to achieve benchmarks for SDG 15 - LIFE ON LAND include -

- Increasing Green Cover in the State
- Green Mahanadi Mission (GMM)
- Intensive Protection of Critically Endangered Areas
- Departmental Working Forest Coupes and Depots
- Survey & Utilization of Forest Resources and Forest Research
- Training Program
- Empowering BMCs and staffs of the Forest Department through capacity building programs and outreach activities to protect and conserve biodiversity and habitats
- Empowering BMCs to levy charges for the collection of bioresources and creation of Local Biodiversity Funds (LBF). The funds generated would be utilised towards the protection of biodiversity and creation of livelihood opportunities for local people.
- Identification and Declaration of biodiversity rich areas as "Biodiversity Heritage Sites (BHSs)" with participation of local people
- Ama Jangal Yojana
- Inventory research in wildlife sanctuaries and protected areas to assess the status of biodiversity and threatened plants, animals and other groups
- Protection of biodiversity by local people by the formation of Biodiversity Management Committees (BMC)

- Preparation of People's Biodiversity Registers (PBR) by BMCs with consultation of local people to document biodiversity and bioresources available in BMCs along with people's perception on loss of biodiversity and traditional knowledge associated with bioresources
- State Medicinal Plant Board (SMPB)
- Wildlife Protection and conservation measures
- Management of Elephant and Corridor
- Development of Ecotourism
- Relocation of villages from sanctuaries and National Parks
- Machha Chasa Pain Nua Pokhari Yojana
- Generating mass awareness through celebration of international events and mass communication media.

RAJASTHAN
9. **GANDHIVAN** - (CLOSELY TIES IN WITH **SDG 13**)

The area around Toda Ladi, Jaipur was a barren wasteland where land degradation and desertification were on the rise. Villagers would cut down the already scarce vegetation to collect wood for cooking and fodder for their cattle, leading to worsening deforestation. Key stakeholders from local target villages were invited to be part of the Project Implementation and Monitoring Committee (PIMC). Training on planting trees and harvesting rain water were provided to youth volunteers and women, and other awareness activities were carried out to sensitize villagers to environmental conservation.

Through collaborative engagement, the overall management of community fisheries has improved tremendously. Increased environmental protection and restoration have resulted in the protection of 6,000 hectares of fish sanctuary area; the preservation of 25,000 hectares of flooded forest; and re-establishment of fish stocks. Illegal fishing has decreased due to the enhanced engagement of community committees in governance. The economic resilience of target communities, especially women, has also increased owing to collective action and cooperation. Over 100,000 trees of various indigenous species were planted, 6 ancient step wells were re-established, villagers got access to potable water, and 3,000 hectares of degraded land were restored.

JHARKHAND
As per the Jharkhand Vision & Action Plan 2021, Jharkhand's best practices, policies and strategies to achieve benchmarks for SDG 15 - LIFE ON LAND, are mentioned as follows-

- Conservation of tigers and elephants by strengthening Project Tiger and Project Elephant
- Technology integration in forest and wildlife conservation
- Encouraging bamboo cultivation and creating bamboo high- tech nurseries(as per National Guidelines)

NORTH-EAST

10. **SECURE Himalaya Project** — Sikkim

The SECURE Himalaya Project, an initiative by the MoEFCC and UNDP supported by GEF, seeks to implement participatory conservation plans in select snow leopard landscapes. In Sikkim, the project initiatives are as follows -

- Enhancing capacities of government institutions through: Development of comprehensive wetland management plans for high-altitude areas; Management Effectiveness Tracking Tool (METT) to measure implementation impact in Protected Area management; Sustainable Harvesting Protocols designed for key medicinal and aromatic plants; Standardized data collection protocols to mitigate illegal trade in wildlife and medicinal plants.
- Strengthening community-based conservation models through: Capacity building and training of Biodiversity Management Committees and preparation of Peoples' Biodiversity Registers; Training of 'Himal Rakshaks' or community volunteers undertaking monitoring and surveillance activities; Upscaling plastic waste management model of local Dzumsas; Automated alarm systems to reduce human-wildlife conflict.
- Alternative livelihoods for communities to reduce natural resource dependency including Solar drying systems for large cardamom to reduce fuelwood consumption; Detailed micro-plans prepared for high altitude villages in snow leopard landscapes.

11. **Amur Falcon Conservation: Achieving 'Zero Hunting'** — Nagaland

The Amur Falcon Conservation efforts are being undertaken by the Department of Environment, Forest & Climate Change, Government of Nagaland in an attempt to trigger conservation efforts to prevent the mass killing/hunting of the Amur Falconbird.

The Department has undertaken the following actions -

- Deployment of frontline staff at roosting sites to control the killing, trapping and selling of the birds.

- A Sub-committee consisting of all the territorial Divisional Forest Officers and Wildlife Warden was constituted to supervise at the field level.
- Awareness programs on Amur Falcon Conservation.
- Distribution of IEC to generate widespread public awareness about the Amur Falcon.
- Constituted District Level Coordination Committee to control wildlife crime.
- Conservation Action Plan of Amur Falcon - includes involvement in protection work, eco-tourism, habitat improvement and research.
- Policy of zero tolerance to hunting, killing and trapping Amur Falcons.