

Green Skill Development Programme

The Ministry of Environment, Forest & Climate Change (MoEF&CC) has been implementing a Central Sector Scheme titled ENVIS since 1982-83. ENVIS, by providing scientific, technical and semi-technical information on various environmental issues, has served in facilitating policy formulation and environment management at all levels of Government as well as in decision-making aimed at environment protection and its improvement for sustaining good quality of life for all living beings. ENVIS is a decentralized network of 67 centres of which 31 Centres dealing with "State of the Environment and Related Issues" are hosted by State Government /UT Administrations, called ENVIS Hubs and remaining 36 Centres are hosted by environment-related governmental and non-governmental organisations/institutes of professional excellence, with varied thematic mandates pertaining to environment, called the ENVIS Resource Partners (RPs).

Utilising the vast network and expertise of our ENVIS Hubs/RPs, the Ministry for the first time, has taken up an initiative for skill development in the environment and forest sector to enable India's youth to get gainful employment and/or self employment, called the **Green Skill Development Programme** (GSDP). The programme endeavours to develop green skilled workers having technical knowledge and commitment to sustainable development, which will help in the attainment of the Nationally Determined Contributions (NDCs), Sustainable Development Goals (SDGs), National Biodiversity Targets (NBTs), as well as Waste Management Rules (2016).

1. <u>Background</u>: India being the second most populous country in the world is bestowed with a large working population. India has advantage of reaping this demographic dividend. However, high drop-out rates from school coupled with poor vocational skills may hinder in reaping this dividend. There exists a demand-supply gap of skill sets, both cognitive and practical, at various levels in the Environment/Forest fields in India.

Green skilling is crucial for making a transition from energy and emissions – intensive economy to cleaner and greener production and service patterns. It also prepares people for green

jobs that contribute to preserving or restoring the quality of the environment, while improving human well-being and social equity. Hence activities under GSDP include process-based green skills such as, monitoring and managing activities such as waste, energy efficiency, impact minimization and assessment, etc. Facilitating the employment/self-employment of the skilled manpower is major goal of GSDP.

Realizing the demand for green skilled youth, the Green Skill Development Programme (GSDP) has been conceptualised and developed in MoEF&CC in consultation with the National Skill Development Agency (NSDA), the nodal agency for synergizing skill development initiatives in the country, under the Ministry of Skill Development & Entrepreneurship (MSDE). All skilling modules are NSQF compliant. For more information on National Skill Qualification Framework (NSQF) and Common Norms please follow the link: http://www.nsda.gov.in/nsqf.html

- 2. Present Status: The first GSDP course was formulated for skilling Biodiversity Conservationists (Basic Course: 3 months-Completed) and Para-taxonomists (Advanced Course: 3 months-Ongoing) and is running on pilot basis in ten select districts (covering nine bio-geographic regions). The pilot course has received positive feedback from all stakeholders. For more information on Training Module and Success stories please follow the link: https://goo.gl/PzUTvy
- 3. <u>Way Forward</u>: With the success of the pilot programme, the next step is to take the skilling programme to an all India level and for all the courses to commence in May, 2018.

For this, the following steps are required to be undertaken:

- Identification of New courses based on the demand
- Identification of New Institutes with the necessary expertise, and
- Identification of Employment opportunities

List of courses currently offered along with the prospective employment opportunities and ENVIS Hubs/RPs and Institutions/ Entities imparting the courses is given overleaf. The list is not finite and will be increased depending on the demand for the same.

Master Trainers:

The list of the courses indicated above would be carried out by the respective ENVIS Hubs/RPs and Institutions/Entities. To expand the skill development programme at a larger scale, there is a requirement to train a pool of **Master Trainers/Specialists** who can further train youth across the country. Hence, the Ministry would initially create a pool of master trainers in each of the above mentioned courses. As per the requirement of the skilling programme, Graduates in Science/Arts and even drop-outs would be trained to become master trainers.

These courses would commence from May, 2018 across India. These Master Trainers/Specialists would in turn then help in training participants in various States/UTs. These Master Trainers would form the backbone of the entire programme in the years to come. The frequency of conducting each programme in a year would depend on the total duration of each course which would vary from course to course and accordingly the number of skilled persons would increase.

Project Mode: Skilling in Air/Water Pollution measurement and management of STP / ETP / CETP operation and maintenance and waste management is being undertaken in project mode in specific stretches of Ganga and Brahmaputra rivers.

Collaborations:

The Ministry has held deliberations with various stakeholders and welcomes any collaboration/ participation/ partnership in the programme from national and international organisations/ institutes/ agencies etc. to build a strong network which can be utilised for green skilling under GSDP for sustainable conservation and management of our natural resources.

For any queries/feedback please feel free to contact us at:

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Proposed Certificate Courses/Training programmes under GSDP for Master Trainers (MTs)/ Specialists expected to commence in May, 2018

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SI No.	Certificate Course in	ENVIS Hubs/RPs and Institutions/Entities concerned	Prospective Employment Opportunities in
1.	Bamboo Management and Livelihood Generation [(I) Propagation and Management of Bamboo and (ii) Bamboo processing, Value addition, marketing and livelihood.]	1. BNHS, Mumbai 6. HFRI, Shimla 2. FRI, Dehradun 7. RFRI, Jorhat 3. IFP, Ranchi 8. TFRI, Jabalpur 4. IPIRTI, Bengaluru 9. KSCSTE, Thiruvananthapuram 5. IWST, Bengaluru 10. DoE&F, Arunachal Pradesh	Self-employment / Master Trainer
2.	Lantana Furniture and Crafts	Amrita Vishwa Vidyapeetham, Coimbatore	Self-employment / Master Trainer
3.	Organic/ Medicinal farming and Marketing (All NTFPs except Bamboo)	 AFRI, Jodhpur CERC, Gujarat FRI, Dehradun TFRI, Jabalpur IFGTB, Coimbatore DoE&F, Arunachal Pradesh 	Self-employment
4.	Ganga Sewak Nature Interpretation	WII, Dehradun	Self-employment / Master Trainer
5.	Nature Interpretation for Village Youth	WII, Dehradun	Self-employment / Master Trainer
6.	Wild Bee Keeping	Assam Science, Technology and Environmental Council (ASTEC), Guwahati	Self-employment
7.	Community based conservation of Mangroves plantation	CASMB, Tamil Nadu GEC, Gujarat BSI Regional Office, Pune	Self-employment
8.	Production and Management of Bio-fertilizer	 CPREEC, Tamil Nadu DzUM, Chennai FRI, Dehradun IFGTB, Coimbatore KSCSTE, Thiruvananthapuram AFRI, Jodhpur TFRI, Jabalpur University of Kalyani, W.B. 	Self-employment/ Nurseries/ Botanical Gardens
9.	Management of Small Botanical Gardens	 CPREEC, Tamil Nadu DzUM, Chennai FRI, Dehradun IFGTB, Coimbatore KSCSTE, Thiruvananthapuram AFRI, Jodhpur TFRI, Jabalpur 	Self-employment/Nurseries/ Botanical Gardens/Households/ Corporates/Govt./University campuses
10.	Seed Bank Management	CPREEC, Tamil Nadu	Nurseries/Botanical Gardens/Self- employment
11.	ETP/STP/CETP Operation and Maintenance	 CECB, Raipur EPTRI, Hyderabad NEERI, Nagpur Department of Environment – Chandigarh 	ETP/STP/CETP Plants in industries/Municipal Corporations/Councils/Boards
12.	Plantation Techniques and Utilization of Renewable Energy in Arid Zone	CAZRI, Jodhpur	Research Institutions related to the theme /Self Employment
13.	Pollution Monitoring (Air/Water/Noise)	1. ADRI, Patna 10. TSPCB, Agartala 2. CPCB, Delhi 11. UEPPCB, Dehradun 12. CPCB-Zonal Office, Bhopal 13. CPCB-Zonal Office, Bengaluru 14. CPCB-Zonal Office, Kolkata 15. CPCB-Zonal Office, Lucknow 16. CPCB-Zonal Office, Shillong 17. CPCB-Zonal Office, Vadodara 17. CPCB-Zonal Office, Vadodara 18. CPCB-Zonal Office, Vadodara 19. Puducherry PCC	CPCB/SPCB/ Municipal Corporations/ Councils
14.	Forest Fire Management	Disaster Management Institute (DMI), Bhopal	Forest Departments
15.	River Dolphin Conservation	ZSI Regional Office, Patna	ZSI/Research Institutions related to the theme
16.	Forestry Acts and Policy	ICFRE, Dehradun	Facilitation Centres in State Forest Departments
17.	Preparation of Peoples Biodiversity Register	EPTRI, Hyderabad	Biodiversity Management Committees

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18.	Marine Taxonomy and Coastal Biodiversity	 BNHS, Mumbai CASMB, Tamil Nadu Centre for Environmental Studies (CES), Odisha IOM, Tamil Nadu BSI Regional Office, Coimbatore 	GRIDSS / BSI / ZSI / BNHS/ CASMB/ Research Institutions related to the theme/State Biodiversity Boards/ Biodiversity Management Committees
19.	Para-Taxonomy: (Specialisation in: Floral Diversity / Faunal Diversity / Wetlands Diversity / Medicinal Plants Diversity)	 ASTEC, Guwahati Centre for Environmental Studies (CES), Odisha D/o Environment & Forests, Arunachal Pradesh Dept. of Forests and Environment, Manipur Directorate of Environment - Uttar Pradesh EPTRI, Hyderabad Gujarat Ecology Commission, Gandhinagar HIMCOSTE, Shimla SACON, Colmbatore 	GRIDSS / BSI / ZSI / FRI / ICFRE / SACON / Zoos / wildlife sanctuaries/ national parks / biosphere reserves / Botanical Gardens/ Bird Sanctuaries/ Nurseries/ wetland sites/WCCB Regional Offices/ State
20.	Bird Identification and basic ornithology	1. BNHS, Mumbai 2. SACON, Coimbatore	Biodiversity Boards/ Biodiversity Management Committees
21.	Bird Migration and Migration study techniques	BNHS, Mumbai	
22.	Wildlife Management using Geospatial Techniques	WWF, Delhi	
23.	Plant Tissue Culture Techniques and its Applications	EPTRI, Hyderabad 3. TFRI, Jabalpur KSCSTE, Thiruvananthapuram	Research Institutions related to the theme
24.	Waste Management [Solid Waste Management (SWM) /Biomedical waste /Municipal SWM/Plastic Waste Management]	 EPTRI, Hyderabad IISc, Bengaluru NEHU, Shillong TSPCB, Agartala University of Kalyani, W.B. NEERI, Nagpur 	Municipal Corporations/ Councils
25.	Water Budgeting & Auditing	 ADRI, Patna EPTRI, Hyderabad 	Urban local bodies/ Panchayats in rural areas/ Industries/ Water treatment plants/ Research Institutions etc.
26.	Laboratory Assistant for Eco-friendly Food testing Laboratory	CERC, Gujarat NIOH, Gujarat	Eco-friendly Food testing Labs
27.	Laboratory technicians/ Technical Assistants for energy efficiency, star labelling and other electrical testing for environmental criteria	CERC, Gujarat	Private firms/Govt. certifying institutions/bodies
28.	Cleaner Production Assessment	GCPC, Gujarat	Industries
29.	Greenbelt Development for Industries	NBRI, Lucknow	Industries
30.	City Environmental Surveyor	SPA, Delhi	Environmental Cell in States/ UTs/Development Authorities/ Municipal Corporations/ Councils
31.	Solar Energy Systems to enhance technical knowledge	 Department of Environment – Chandigarh TERI, Delhi 	Private Firms/Govt. bodies/Self- employment
32.	Environmental Laws	NLSIU, Bengaluru	Assistant to Para-Legal
33.	Valuation of Ecosystem Services, Green GDP, Carbon Stock	 BNHS, Mumbai EMPRI, Bengaluru EPTRI, Hyderabad BNHS, Mumbai IISc, Bengaluru KSCSTE, Thiruvananthapuram 	GRIDSS / Research Institutions etc.
34.	Forest Entomology & Pest Control	 FRI, Dehradun TFRI, Jabalpur KSCSTE, Thiruvananthapuram 	Pest Control Agencies/ Companies/ Forest Departments/ Research Institutions