Guidelines of
Green Skill Development Programme (GSDP)
Under
Environmental Information, Awareness, Capacity Building and Livelihood Programme (EIACP)

Under
Environmental Education, Awareness, Research and Skill Development Scheme (EEARSD)

Ministry of Environment, Forest & Climate Change

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TABLE OF CONTENTS

1.   Background

Under the erstwhile Environmental Information System (ENVIS) Scheme of the Ministry of Environment, Forest & Climate Change (MoEF&CC), GSDP was launched in June 2017, on a pilot basis to meet skill gaps in the economy, at 10 locations, spread over 9 biogeographic regions of the country to skill youth in environment, forest and wildlife sectors and enabling them to be gainfully employed or self-employed. The Pilot offered a basic course and an advanced course of 3 months duration each to skill the youth as biodiversity conservationists and para-taxonomists, respectively. 94 trainees successfully completed the basic course qualifying as skilled biodiversity conservationists and the advanced course was completed by 154 candidates, qualifying as para taxonomists.

Based on the success of the pilot, the programme was extended to pan-India level in 2018-19 covering diverse fields - pollution monitoring (air/water/soil), emission inventory, Sewage Treatment Plant (STP)/Effluent Treatment Plant (ETP)/Common Effluent Treatment Plant (CETP) operation, waste management, water budgeting & auditing, bamboo management & livelihood generation, etc. The training imparted under GSDP endeavours to enhance technical knowledge of the skilled workforce with a focus on hands-on training.

ENVIS Scheme has been subsumed within the revamped scheme- Environment Education, Awareness, Research and Skill Development (EEARSD) which has been approved for 2021-22 to 2025-26 in June 2022. The revamped scheme has three components and one of the component is Environmental Information, Awareness Capacity Building and Livelihood Programme (EIACP). GSDP is being implemented under the EIACP.

2.   Target Beneficiaries

The GSDP covers a diverse spectrum of beneficiaries ranging from school and college dropouts and other students in environmental sector to budding entrepreneurs, working professionals including those in industrial sectors, scientific and technical institutions. Many courses cater specifically to the tribal population and north eastern region.

3.   Accreditation

The Ministry of Skill Development and Entrepreneurship (MSDE) is the nodal Ministry responsible for co-ordination of all Skill Development efforts across the country.

The National Council for Vocational Education and Training (NCVET) was notified by the MSDE on 5th December 2018. The NCVET acts as an overarching skills regulator to regulate the functioning of entities engaged in vocational education and training, both long and short term, and establish minimum standards for the functioning of such entities. The GSDP is aligned with the norms and guidelines issued by NCVET as issued from time to time. All the courses under the GSDP are approved by the NCVET. The list of the currently approved courses are at Annexure-I.

4.   **Implementation of GSDP**

  i.   The courses under the GSDP are identified by MoEF&CC and approved by the NCVET.
 ii.   Programme Centres and Implementing Agencies as identified under the EIACP conduct the GSDP courses as per the guidelines of GSDP.
iii.   The Programme would endeavour to include courses not only in traditional areas but also in new emerging areas like electric vehicles, hazardous waste/Bio-medical waste etc. considering their future scope/requirements/prospects.
 iv.   The syllabus for each course, indicating the number of hours and the theory/practical component of each broad topic covered, is prepared by the Lead Programme Centre and approved by NCVET as per the National Skill Qualification Framework (NSQF) curriculum.
  v.   The Training Manual of each course has detailed content and instructions on each of the topic stated in the syllabus of that course as part of the NSQF.
 vi.   The Training Manual for any newly proposed GSDP course is to be prepared by the Lead Programme Centre, after approval of MoEF&CC and NCVET.
vii.   All Programme Centres will follow the Training Manual and syllabus while conducting the course.
viii.   A common course syllabus (CCS) on GIS and other computer applications has also been developed and is imparted to the candidates of the relevant GSDP courses. The list of courses exempt from CCS are in Annexure-II and the topics covered in CCS are in Annexure-III.
 ix.   A basic training on soft skills and entrepreneurship including knowledge of opening bank accounts, applying for loans etc will be imparted to the candidates.

4.1   **SELECTION PROCEDURE**

4.1.1   *Selection Criteria*

Requirement of minimum Educational Qualification shall be strictly adhered to. The list mentioning the minimum essential qualification required for each course is at Annexure-I

In addition, other criteria, as applicable that could be used for selecting the candidates for the various skilling programmes are given below:

- Any prior experience in the field,
- Interest in the field selected,
- Ability to communicate effectively,
- Basic computer knowledge – working with word and excel spreadsheets,

The GSDP courses are not similar and may require a differentiated selection process. The Programme Centre (thematic expert) conducting that particular GSDP course will decide the selection criteria for that particular course.

4.1.2 *Selection Process*

(i) The Programme Centre will advertise seeking applications for the GSDP course sanctioned to it.

(ii) The application window will be open for 2-3 weeks from the date of release of the advertisement. The entire process of identification, communication, written test/interview and selection of candidates is to be completed by the next fortnight.

(iii) Candidates may be directed to bring aadhaar card and any other identity card (PAN Card, Passport, Ration card etc.) for proof of identity and proof of residence for the written test/interview.

(iv) Unique ID would be generated for each candidate in the GSDP Portal. This unique ID will help avoid the application/enrollment by a single candidate in multiple skill development courses.

(v) In case a candidate wants to upgrade his/her skills and applies again for a GSDP course, he/she shall be permitted to do the course only in the following three GSDPs which have both basic and advanced Courses:
1. Bird Identification and Basic Ornithology -> Bird Migration and Migration Study Techniques
2. Biodiversity Conservation -> Advance Certificate Course in Parataxonomy
3. Bamboo Crafts -> Propagation and Management of Bamboo
However, in this case, the candidates have to bear their own Boarding & Lodging expenses.

4.2 Conduct of GSDP

The Programme Centres/Implementing Agencies (IAs) will submit the proposals for conducting NSQF approved GSDP courses to the Programme Division, MoEF&CC. They shall conduct the course only after receiving sanction for the same after examination by the Programme Division and concurrence of IFD.

5   POST SKILLING PROCEDURES

5.1 Examination of candidates

The Programme Centres/IAs shall get the candidates examined by an Assessment Agency approved by the NCVET.

5.2 Placement of candidates
(i) After the examination, the Programme Centres may facilitate a campus placement for all trainees successfully completing the skilling course.

(ii) To facilitate the placement to candidates, the Programme Centre may collaborate with experts from relevant sectors/industries for placement assistance.

(iii) The template of the certificate and logos in accordance with NCVET Awarding Body Guidelines, would be provided by the MoEF&CC.

(iv) The information on placement of each candidate has to be uploaded on the GSDP portal and their progress noted and maintained for one year.

5.3 Physical Inspection

Officials of the Programme Division along with the officers of other divisions of the Ministry may conduct visits to the locations where GSDP courses are being conducted for physical verification and assessment of infrastructure/facilities etc, and seek feedback from the trainees and other stakeholders. Thereafter, a tour report, providing observations as well suggestions, shall be submitted by the visiting officials to the Divisional Head.

5.4 Employability

The guidelines would be issued to the Centres regarding requirement to compulsorily provide at least 35% employment in each GSDP course conducted by it. This target shall be increased gradually to 50% over the scheme period. Accordingly, the revised criteria for conducting GSDP courses in the year 2023-24 is as follows:

- If a Centre has submitted a proposal for conducting a course, it shall be approved if the Centre has provided more than 35% employment in that course in the past.
- If a Centre submits a proposal for a new course, it shall be approved only if the Centre has provided more than 30% employment in the past.
- If a Centre is conducting GSDP course for the first time, it may be permitted.

(i) Wage employment and self-employment definitions and norms will be as defined by MSDE.

(ii) Placement in the autonomous bodies/other institutions of MoEF&CC like Biodiversity Management Committees for preparation of People's Biodiversity Registers, state Biodiversity Boards, Botanical Survey of India (BSI), Zoological Survey of India (ZSI) and their respective Regional Centres, Wildlife Crime Control Bureau (WCCB) and its Regional Offices, as well as in various National Parks, Plantations, Eco-Resorts, Wildlife Tourism sector (as Green Guides), CPCB and its Regional Directorates, SPCBs may be facilitated.

6   Funding/Financial Assistance

(1)   Funding Pattern:

Sl. No.	Subject Heads	Permissible Expenditure		
1.	Course Material	Rs. 5000/student		
2.	Boarding and Lodging (Annexure- IV mentions the categorization of cities Ministry of Skill Development and Entrepreneurship Notification New Delhi, the 1st January, 2021)	**Cities**	**Funding**	
		Hilly and NE	1200/day/student	
		Tier I cities	1000/day/student	
		Tier II Cities	800/day/student	
3.	Transportation	**Cities**	**Funding**	
		Hilly and NE	2 Lakhs	
		Tier I cities	1.5 Lakhs	
		Tier II Cities	1 Lakh	
4.	Engagement of Experts / Resource Persons	Rs. 4000/day for two Resource Persons		
5.	Others	Rs. 1 Lakh/course		
6.	Contingency	Rs. 50000/course		
7.	Assessment Costs	As applicable		

Note
   a. Machinery/Equipment will be considered on case by case basis.
   b. Institutional Charges will be provided at the rate of 10% of funds approved for each course if found appropriate on a case to case basis for IAs that are not Programme Centres.
   c. The Centres shall send a few samples of the products made under GSDP to the Ministry for display in the Ministry and other events of the Ministry as and when required.

(2)   **Refundable security deposit chargeable to all candidates**: To ensure that candidates selected for the training programmes are undertaking the training with seriousness, and also to reduce the drop-out rates during the course of training, Programme Centres/IAs shall charge a refundable security deposit of Rs. 500/- per candidate for NSQF Level 5 and above at the commencement of the training. The amount would be refunded to every candidate who completes the training programme and is successfully certified. Proof of refund shall be intimated to the Programme Division endorsed by the Programme Coordinator.

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Certificate Courses under GSDP approved by NCVET (Eligibility, Duration and NSQF Level)

S. No.	Course Title	Eligibility/Minimum Educational Qualification	Duration (hrs)	NSQF level
Approved till September, 2023				
1.	Biodiversity Conservation	Class XIIth	**420**	**4**
2.	Advance Certificate Course in Parataxonomy :	Class XIIth Pass +Certificate course in Biodiversity conservation or Graduation in any discipline		**5**
	a. Floral Diversity		**420**	
	b. Faunal Diversity		**420**	
	c. Medicinal Plants and Traditional Knowledge		**420**	
	d. Wetland Diversity		**420**	
	e. PBR		**305**	
3.	Bird Identification and basic ornithology	Class Xth Pass/ ClassXIIth Pass/dropouts	**160**	**5**
4.	Bird Migration and Migration study techniques	Graduation in any discipline	**186**	**5**
5.	Forest Fire Management	XIIth Pass	**300**	**5**
6.	Plant Tissue Culture Techniques and its Applications	Science Graduate	**320**	**6**
7.	Propagation and Management of Bamboo	Class XIIth pass	**240**	**5**
8.	Valuation of Ecosystem Services and Green GDP	Graduation in any discipline	**105**	**5**

9.	Value addition and Marketing of NTFPs (Plant Origin)$^@$: (i) Lantana Furniture and Crafts (ii) Coconut Shells & Fibre Handicrafts (iii) Bamboo Crafts (iv) NTFP Products/ Medicinal Plants	(i) to (iii) no minimum qualification (iv) Class XIIth Pass	**(i) 400** **(ii) 240** **(iii) 400** **(iv) 140**	**5**
10.	Water Budgeting & Auditing	Graduation in any discipline	**200**	**6**
11.	Cleaner Production Assessor	Science Graduate	**85**	**6**
12.	Emission Inventory	Graduate/Post Graduate with Engineering background	**130**	**6**
13.	ETP/STP/CETP Operation and Maintenance	Science Graduate	**300**	**6**
14.	Forest Entomology & Pest Control	Graduate	**216**	**6**
15.	Greenbelt Development for Industries	Science Graduate	**200**	**6**
16.	Laboratory Technician for Eco-friendly Food Testing Laboratory	Science Graduate	**225**	**6**
17.	Laboratory technicians for energy efficiency, star labelling and other electrical testing for environmentalcriteria	ITI/Diploma/ Science Graduate	**264**	**6**
18.	Sustain and Enhance Technical Knowledge in Solar Energy Systems	Class XIIth Pass/ dropout	**240**	**5**
19.	Paralegal Practices: (i) Forestry Acts and Policy (ii) Environmental Laws	Graduate	**(i) 80** **(ii) 200**	**5**
20.	Plantation Techniques and Utilization of Renewable Energy in Arid Zone	XIIth Pass	**180**	**4**
21.	Pollution Monitoring: (i) Air Pollution (ii) Water Pollution (iii) Soil Pollution	Science Graduate/Diploma in Engg.	**(i) 130** **(ii) 130** **(iii) 200**	**6**
22.	Quality Planting Material	Xth Pass	**240**	**4**

	Producer			
23.	Waste Management (Solid Waste, Biomedical Waste, Plastic Waste, E-Waste, Construction & Demolition Waste)	Science Graduate	**300**	**6**
24.	Wildlife Management using Geospatial Techniques	Science Graduate	**264**	**6**
Approved till 2022				
25.	Value Addition & Marketing of Non-timber forest products (NTFPs)- (Animal Origin): (i) Wild Bee Keeper (ii) Lac Cultivator (iii) Tasar Cultivator	8th Pass	**200**	**4**

@ All the sub courses include 40 hours of common module on entrepreneurship development and livelihood generation.

Training courses under GSDP that do not require the CommonCourse Syllabus

1   Value addition & marketing of NTFPs (Plant Origin)

      (a)   Lantana Furniture and Crafts
      (b)   Coconut Shells & Fibre Handicrafts
      (c)   Bamboo Crafts
      (d)   Other NTFP Products/Medicinal Plants

2   Value addition & marketing of NTFPs (Animal Origin)

      (a)   Wild Bee Keeping and Processing
      (b)   Lac Cultivation
      (c)   Tassar Cultivation

3   Quality Planting Material Producer

4   Propagation and Management of Bamboo

5   Plantation Techniques and Utilization of Renewable Energy in Arid Zone

6   Laboratory Technicians/ Technical Assistants for energy efficiency, starlabelling and other electrical testing for environmental criteria

7   Paralegal Practice:

      (a)   Forestry Acts and Policy
      (b)   Environmental Laws

8   Plant Tissue Culture Techniques and its Applications

9   Laboratory Assistant for Eco-friendly Food testing Laboratory

10   Cleaner Production Assessor

<u>**COMMON COURSE SYLLABUS (CCS)**</u>**:**

Fundamentals of Remote Sensing, GIS and Ground Investigation Techniques

- Introduction to Geoinformatics
- Survey methods (Line transect, point count method, quadrat method)
- Resource mapping exercises locally- GBH readings, height, canopy cover
- Introduction to methods of Population count
- Methods for Documentation of Phenological data, causes of threats locally
- Use of GIS and GPS tools and applications for data collection and mapping
- Documentation of flora & fauna for PBRs

Hands on training in GIS (70 hours)

1. Mapping: National and international importance including biodiversity hotspots*
2. Population of endangered water birds*

Detailed GIS Syllabus

Fundamentals of Computer, MS office, Internet and Email - Introduction to Geographical Information Systems and GIS software, Fundamentals of GIS: Layers and features, Raster/Vector- Geo-referencing and projection, Spatial data and GIS basics; Data attributes and spatial topology, Projection / Image registration, Digitization and data attributes -map data representation, GPS.

1. Definition
2. Components
3. Applications
4. Fundamentals to Map
   - 4.1. What is Map
   - 4.2. Types of Map
   - 4.3. Scale
   - 4.4. Legend
5. Data
   - 5.1. Spatial Data
   - 5.2. Non-Spatial Data
   - 5.3. Raster
   - 5.4. Vector
   - 5.5. Projection
6. Working with Tools - **GIS Practicals**
   Overview of QGIS Tools

Importing Data in QGIS

Georeferencing

Define Projection
Creating DB, DS and FC
Vectorization in QGIS
Exporting Feature class to Shape file
Joining Spatial and Non Spatial Data in QGIS
Editing in Spatial Data
Shape file to KML
Identifying Spatial Objects/Features
Digitization in Google Earth
Importing and Viewing KML file in Google Earth

7. GIS Application: Mapping of Flora, Fauna and Wetland*
8. Training on Choropleth Mapping
9. Layout Output Generation

Introduction to Software: ARCGIS, QGIS, GOOGLE EARTH, ERDAS IMAGINE

Note: * - the field will change depending on the GSDP course

Categorization of Indian Cities for Residential Training Costs

S.N.	State	Cities classified as "X"	Cities classified as "Y"
1	Andhra Pradesh		Vijayawada [Urban Agglomeration (UA)], Visakhapatnam (UA), Guntur
2	Assam		Guwahati (UA)
3	Bihar		Patna (UA)
4	Chandigarh		Chandigarh
5	Chhattisgarh		Durg - Bhilai Nagar (UA); Raipur (UA)
6	Delhi	Delhi NCR (UA)	
7	Gujarat		Ahmedabad (UA), Rajkot (UA), Jamnagar (UA), Vadodara
8	Haryana		Faridabad
9	J&K		Srinagar(UA), Jammu (UA)
10	Jharkhand		Jamshedpur (UA), Dhanbad
11	Karnataka	Bengaluru(UA)	Belgaum (UA), Hubli-Dharwar, Mangalore (UA)
12	Kerala		Kozhikode (UA), Kochi (UA), Thiruvananthapuram (UA)
13	Madhya Pradesh		Gwalior (UA), Indore (UA), Bhopal (UA), Jabalpur
14	Maharashtra	Greater Mumbai (UA)	Amravati, Nagpur (UA), Aurangabad (UA), Nasik(UA), Bhiwandi (UA), Pune (UA), Solapur, Kolhapur (UA)
15	Orissa		Cuttack (UA), Bhubaneswar (UA)
16	Puducherry		Puducherry (UA)
17	Punjab		Amritsar (UA), Jalandhar
18	Rajasthan		Bikaner, Jaipur, Jodhpur (UA), Kota
19	Tamil Nadu	Chennai	Salem (UA), Tiruppur (UA), Coimbatore(UA), Tiruchirapalli (UA), Madurai (UA)
20	Telangana	Hyderabad (UA)	Warangal (UA)

21	Uttar Pradesh		Moradabad, Meerut (UA), Ghaziabad, Aligarh, Agra (UA), Bareilly (UA), Lucknow (UA), Kanpur(UA),
22	Uttarakhand		Dehradun (UA)
23	West Bengal	Kolkata(UA)	Asansol (UA)

All other cities/towns in various States/UTs which are not covered by classification as "X" or "Y" are classified as "Z".