Model Project Report - 5

TRAINING NEED ANALYSIS

OF

FOREST GUARDS IN U.P.

A PROJECT REPORT

Under guidance

Mr. Umesh Chandra Joshi

NATIONAL FACILITATOR

LEADERSHIP SKILL DEVELOPMENT PROGRAMME

MASTER TRAINER, DEPARTMENT OF PERSONNEL AND TRAINING, GOVT. OF INDIA

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1. Introduction

The Forest Department is one of the most imperative department as well as one of the oldest one. The British people recognized the importance of forests and paid special attention for its management. Though there objective was different, but in any case the systematic management of forests started very early as compared to other services in the country. At present, forest department is even more important due to the fact that the forests are not only source of revenue but forests are important because of other so many reasons , including Pollution control, Climate Change, Global Warming, Carbon Sequestration and above all the forests are a major source of livelihood to the weakest section of the society.

Forest Guards is the cadre at the lowest rung in the forest department whose is responsible for all the developmental activities, protection of forests, control of forest crimes and conservation of Wild Life and biodiversity. The present training programme for the forest guards which is for six months was designed with the purpose of protection and regeneration of forests and the emphasis was more on traditional forestry rather than on modern technologies and the ever changing needs. Its whole design is based on the guidelines issued by the Government of India. Enactment of new laws, introduction of new technologies, fast changing socio economic conditions and increased pressure on forest land to meet the demand of increasing population and development has brought in the gap in the actual and expected performance levels of forest guards.

In the undivided state of Uttar Pradesh, there was a Forestry Training College at Haldwani, which is now in Uttarakhand. There were Forest Guard Training Centres at Kotwa (Mirzapur), Lalganj (Pratapgarh), Vandevi (Mau), Hastinapur (Meerut) and Baipur (Agra). The trainings were supervised at the Head Quarters at Lucknow by an officer of the level of Conservator of Forests while at Haldwani, the in-charge of the Forestry Training College was Principal, who was also in the rank of Conservator of Forests.

In the year 1988, Forestry Training Institute was established at Kanpur with an objective to cater the need of the training of Foresters / Dy. Rangers for their induction courses and also for refresher course for Range Forest Officers/ Dy. RFOs and Foresters. Now after the bifurcation of the state in November' 2000 FTI at Kanpur is the only institute for training of forest staff apart from the above five Forest Guard Training Centres.

The training course for six months for Forest Guards was earlier designed for the purpose of production forestry, i.e. the objective of management was to get maximum yield from the forests but as the priorities changed, the module was accordingly redesigned and the current module is based on the Government of India, Ministry of Environment and Forests, Directorate of Forest Education, Dehradun's guidelines.

The last modifications have also become redundant in many aspects. One of the reasons that after the Hon'ble Supreme Court's judgment, dt. 12.12.1996 in the case of T.N.Godabarman v/s Union of India and Others and subsequent Interlocutory Applications in the case, the management practices have undergone a sea change, which have not been fully incorporated in the guidelines. Thus there is a need to redesign the Induction course for Forest Guards.

2. Performance Problem Analysis

A. Context and the Present Scenario: Systematic Forest Management in India started in the year 1863. During the early part of the British rule, trees felling was not regulated and large numbers of trees such as the Sal, Teak, and Sandalwood were cut for export. The British gradually appropriated forest resources for revenue generation. Trees could not be felled without prior permission and knowledge of the authority. This step was taken to ensure that they were the sole users of the forest trees.

A little later, the British began to regulate and conserve the forests. In 1800, a commissioner was appointed to look into the availability of teak in the Malabar forests. In 1806, the Madras government appointed Capt. Watson as the commissioner of

forests for organizing the production of teak and other timber suitable for the building of ships. In 1855, Lord Dalhousie framed regulations for conservation of forest in the entire country. Teak plantations were raised in the Malabar hills and acacia and eucalyptus in the Niligiri Hills.

In Bombay, the conservator of forest, Gibson, tried to introduce rules prohibiting shifting cultivation and plantation of teak forests. From 1865 to 1894, forest reserves were established to secure material for imperial needs. From the 18th century, scientific forest management systems were employed to regenerate and harvest the forest to make it sustainable. Between 1926 and 1947 afforestation was carried out on a large scale in the Punjab and Uttar Pradesh. In the early 1930s, people began showing interest in the conservation of wild life. In this period, the Indian Forest Act, 1927 was promulgated which is still in force with a number of amendments. This act classified the forest areas into Reserved, Protected, Village and un-classed forests, defined forest officer and vested powers in them to deal with the forest crimes. Even today, powers are drawn from this very act.

During World War I forest, large quantities of timber were removed to build ships and railway sleepers and to pay for Britain's war efforts. Between the two wars, great advancements in scientific management of the forests were made, with many areas undergoing regeneration and sustained harvest plans being drawn up. World War II made even greater demand on the forest than World War I had done.

With the independence of India in 1947, a great upheaval in forestry organization occurred. The princely states were managed variably, giving more concessions to the local populations. The priority shifted from revenue generation to protective functions of the forest.

Until 1976, the forest resource was seen as a source of earning money for the state and therefore little was spent in protecting it or looking after it. In 1976, the governance of the forest came under the concurrent list. 'Development without destruction' and 'forests for survival' were the themes of the next two five-year plans,

aiming at increasing wildlife reserves and at linking forest development with the tribal economy.

Changing scenario and the priorities have resulted in ever changing management practices for the state forests as well as the trees outside forests. In the year 1976, the concept of Social Forestry was introduced by the National Commission of Agriculture with an objective of developing and increasing tree cover on the community land, along the road, railways and canals. It also promoted development of green patches in the urban areas as well. The larger objective of this was to reduce pressure on the natural forests which were under tremendous pressure due to huge dependency of the people living in the vicinity of forests to meet their demand of fuel and fodder. The Social Forestry project started with the assistance of The World Bank was a huge success and large scale tree plantations were taken up on community land and along the roads, railways and canals.

This was the time when at international forums, the issue of environmental degradation was gaining attention and forests were the central point of discussion. Emission control and Carbon Trade were being discussed and a whole new concept for management and conservation of forests was emerging. India was very much concerned with these issues and in fact the nation took a leading position on these issues. A number of legislations were brought in. To name few are-

- The Air (Prevention and Control of Pollution) Act, 1981
- The Environmental (Protection) Act, 1986
- The Public Liability Insurance Act, 1991
- The Biological Diversity Act, 2002

The Forest Department is one of the most important department as well as one of the oldest also. The British people recognized the importance of forests and paid special attention for its management. Though there objective was different, but in any case the systematic management of forests started very early as compared to other services in the country. At present, forest department is

even more important due to the fact that the forests are no more a source of revenue but forests are important because of other so many reasons, including Pollution control, Climate Change, Global Warming, Carbon Sequestration and above all the forests are a major source of livelihood to the weakest section of the society.

Forest Guard is the person who interact the most with the local people, communities dependent on forests for their livelihood, the criminals and mafias and is also responsible for all developmental activities like nursery raising, plantations, joint forest management etc. therefore it is essential that he/she-

- Must be aware of the latest developments so that he is able to convince the people and make them aware of their role in the larger issues like carbon sequestration, global warming, etc. He/she though not expected to know the finer technological details of these, but he/she must have fundamentals clear so that he/she may convince the forest user groups about conservation importance and promote forestry activities by linking the same with their livelihood and economic benefits.
- Must have the latest knowledge of state of art equipments like GPS, DGPS, use of GIS technology, drone technology.
- Must have a basic knowledge of use of computers and internet, and
- Must be well equipped with arms and vehicle and must have decent accommodation at his/her place of posting, which are many times in very remote areas.

(B) <u>Problem Analysis:</u> The challenges being faced by the Forest Department is multifarious. In the very fast changing scenario, the expectation from the organization are very high and the management (The Top) is looking forward and deciding the direction in which the department need to develop and adapt to the changing environment. The traditional forestry methods

are out of place and no longer can be relied upon, and the only way to cope up with the situation is to train the officials according to the changing needs.

(B-1) <u>At Individual Level:</u> As has already been enumerated, at individual level the core problems are-

(i) Lack of knowledge in modern management practices;
(ii) Lack of knowledge of various laws and acts relevant to their duties;
(iii) Lack of skills in using the modern equipments;
(iv) Lack of computer knowledge;
(v) Lack of incentive for good performance.

(B-2) <u>At Organisational Level:</u>

(i) Lack of infrastructural facilities ;
(ii) Overburdened Forest Guards due to vacant posts;
(iii) Many times unrealistic targets forced upon;
(iv) Multiple pressures passed down to lower level officials.
(v) Lack of motivation and promotional avenues.

3. Definition and Description of Area

The present proposal is aimed at redesigning the induction training programme for the Forest Guards in the department of Environment, Forest and Climate Change. Forest Guard is the cutting edge and is supposed to implement all the policies and laws in the field. Forest Guards are posted at the Beat level and as per the extent and nature of forest resources in the beat, there job preference may be protection of forests, wild life protection, forest extension, control of mining, joint forest management or mix of any two or more of these.

Forests were being dealt as a separate entity, to be managed for the purpose of forests only. Later it has been realized that forests play a much bigger and wider role in the overall protection and development of environment and

accordingly even the name of the ministry and department was also rechristened as **Ministry (Department) of Environment, Forests and Climate Change.** The training programme being suggested will certainly improve skills of the forest guards for the new responsibilities and challenges.

4. Classification and Categorization

The UP Forest Department is headed by The Principal Chief Conservator of Forests, the Head of Forest Force. He is at the helm of all forestry related affairs in the state and is advisor to the government in all matters related to forestry in the state. At the Head Quarters, due to varied nature of job, three more functional PCCFs, The PCCF Wild Life, The PCCF Monitoring and Working Plan and The PCCF Research and Training. The PCCF Wild Life, looks after all matters related to wild life, management of National Parks and Sanctuaries, zoos and biodiversity management. The PCCF Monitoring and Working Plan plays important role in the overall management of forest areas by conceptualizing the future needs and best management practices to address those needs so that forests may be managed in a sustainable manners. Also he keeps an eye on the plantation activities by regularly monitoring the same. The PCCF Research and Training is the backbone of the department as he is responsible to infuse the new techniques and innovations in the department.

The basic work of the forest department is to protect, conserve, develop and manage the forest resources in the state. The forest department has worked in seclusion for long with least interaction with the people and with minimum outside interference. BUT, fast changing socio-economic conditions, rising value of timber, shrinking availability of land, changed political scenario, fast moving vehicles and better communication, technological innovations have all posed new challenges before the forest department in general and front line field staff in particular. A new dimension of mining mafia is threatening the very existence of prime forest areas and underlines the changed the need of better equipments, training and moral for the front line staff. This is evident from the table of forest department establishment given below that it is the Forest Guards who has to deal with the situation-

Designation	Job
PCCF and Head of Forest Force	Policy, Planning and advising the GOUP
PCCF	Wild Life/ Management Plan/ RnT
APPCF	Assisting PCCFs in policy planning and Management
CCF	At HQ Assisting PCCFs and APCCFs In Field Supervisory Authority for all activities
CF	Supervisory and controlling authority for all activities, normally at the Commissionery level
Divisional Forest Officer	Executive Officer at the District Level
Assistant Consedvator of Forests (SDO)	Assists the DFO
Range Forest Officer	In Charge of a Range and is responsible for all activities(Protection and Developmental) in his range
Dy. Ranger/Forester	In-charge of a section and supervise the activities in all the beats under hiss section
Forest Guard	In-charge of a beat, primarily responsible for any activity in his/her beat

5. District-wise number of Trainees

District wise number of trainees will be as in the table below-

S. No.	District/Division	No. of Forst Guards In Position	Target Population
1	Agra	65	04
2	Aligarh	28	02
3	Ambedkarnagar	21	02

4	Amethi	17	04
5	Amroha	15	0
6	Auraiya	16	0
7	Ayodhya	32	04
8	Azamgarh	23	0
9	Badayun	30	0
10	Bagphat	8	0
11	Ballia	29	0
12	Behraich	64	03
13	Basti	19	02
14	Bareilly	23	01
15	Barabanki	32	10
16	Banda	19	0
17	Balrampur	31	0
18	Bijnor	65	03
19	Bulandshahar	30	0
20	Chitrakoot	26	0
21	Deoria	31	0
22	Etah	11	01
23	Etawa	27	01
24	Farrukhbad	14	01
25	Fatehpur	19	0
26	Firozabad	36	0
27	G B Nagar	16	0
28	Ghaziabad	15	0
29	Ghazipur	24	0
30	Gonda	42	07
31	Gorakhpur	48	02
32	Hamirpur	10	0
33	Hapur	7	0

34	Hardoi	23	04
35	Hathras	64	0
36	Jalaun	37	0
37	Jaunpur	31	03
38	Jhansi	34	0
39	Kannauj	14	0
40	Kaushambi	11	0
41	Kushinagar	25	0
42	Laakhimpur Kheri	82	0
43	Lalitpur	47	0
44	Lucknow	39	04
45	Mharajganj	20	02
46	Mahoba	12	0
47	Mainpuri	19	0
48	Mathura	26	01
49	Mau	11	0
50	Meerut	24	01
51	Mirzapue	54	03
52	Moradabad	14	0
53	Muzaffarnagar	19	01
54	Pilibhit	45	01
55	Pratapgarh	23	04
56	Prayagraj	41	07
57	Raebareli	39	01
58	Rampur	23	02
59	Saharanpur	53	02
60	Sambhal	8	01
61	Sant Kabir Nagar	11	01
62	Bhadohi	6	0
63	Shajahanpur	32	05

64	Shamli	8	01
65	Shravasti	19	02
66	Siddhartnagar	15	01
67	Sitapur	29	02
68	Sonbhadra	104	02
69	Sultanpur	17	01
70	Unnao	36	02
71	Varanasi	35	01
72	Chandauli	30	13
73	Kanpur Dehat	18	02
74	Kanpur	23	02
75	Kasganj	15	02
	TOTAL	2129	121

The source of recruitment of forest guards in the department is either through direct recruitment or by promotion from class-IV employees. As per the data available on line, the total number of forest guards in place is 2129. Due to certain reasons, the fresh recruitment of forest guards was very irregular and for many years, no fresh direct recruitment could take place. In these intervening period, the intake was either by promotion or appointment under the provisions of **mRrj izns"k e`rd vkfJr HkrhZ lsok fu;ekoyhA** Fresh regular direct recruitment has started in the year 2016 and the number of recruitment in the last four years is as below –

S. No.	Date of Recruitment by the Commission	Number of Fresh Recruitments
1	17.05.2016	383
2	05.07.2016	21
3	21.11.2019	534
	TOTAL	938

Of the above 938 fresh recruitments 817 have already done foundation course. Thus still we have (938-817) 121 balance forest guards which is the prime target group for the training module being suggested. Another fresh recruitment of 648 Forest Guards is under process. The module will naturally be implemented for all fresh recruitments in future .

6. Task and Job Description

The Forest Guard does a multifarious job in his/her territory. Normally, a Forest Guard is in-charge of a beat, which may vary from few hundred to few thousand hectares. His job includes the following, and the list may not be exhaustive-

- To ensure that the boundaries of his territorial forest are intact and there is no encroachment in his/her area.
- All the boundary pillars are in place and none of them has either been removed or shifted. This is to be ensured every month.
- There is no illicit felling in his/her beat. If there is any, he/she is responsible to file an FIR in the prescribed format, called H-2 case form, to look out for the culprit and to recover the lost material.
- He/she is also responsible to control any kind of poaching and to protect the wild life in his/her beat.
- He/she has to carry out plantation and other developmental activities as per the Working Plan prescriptions and the directions of the senior officers.
- He/she has to maintain nurseries in his beat and ensure the timely raising of seedlings for plantations.
- He/she is also expected to take all precautions to protect the forest area from fire and.
- To control illegal mining in the beat is his/her prime responsibility.
- No vehicle, without a valid gate pass must enter the forest area, and the Forest Guard has to ensure this.
- To provide necessary assistance to the Forester and the Range Officer as per the need.

- To develop good relations with the forest dependent communities so that government schemes are implemented successfully and may take their help in the time of crisis.

Obviously, the job of a Forest Guard is multidimensional and the fact that he is a custodian of an open treasure, with no or little safeguards, he/she need proper training to deal with the varied situations. He/she has to deal with the petty crimes and with the organized criminals or Mafias with very little support and in very remote areas. The training module was designed to equip the Forest Guards with the basic knowledge of forestry activities and forest laws but with very little emphasis on dealing with the real time situations in the current perspective. The current analysis aims at designing and presenting the course structure for Forest Guards focusing on the issue of forest crime and dealing with them in view of the changed modus-operandi of criminals, the new acts and laws enacted in recent past related to forests and wild life, the provisions of IPC and CrPC applicable to these situations.

7. Data Collection and Evidences

The study pertains to Forest Guards in the state of UP. As discussed earlier, Forest Guards are on the lowest rung in the department who deal with the forest management, developmental activities, crime control. He is the person who has direct interaction with the local people in general and with forest dependent community in particular. Therefore to assess the current state of their knowledge regarding current issues being faced by the department at large and their preparedness to deal with them, their knowledge about various Acts, Rules and Regulations and their capability to use these in the interest of the forests and to control forest crimes, the suitability of current curriculum in the changed working conditions, a questionnaire was designed and was circulated among the 70 Forest Guards of 41 forest divisions and their opinions were sought. Apart from these, detailed discussions were held with the senior officers of the forest

department, the Chief Conservator of Forests, the Conservator of Forests and the Divisional Forest Officers. Also, The Assistant Conservator of Forests and the Range Officers were given the same questionnaire to invite their view on the performance of the Forest Guards in the current working conditions and their level of knowledge.

8. Data Analysis

Out of the 70 Forest Guards, 64 responded to the questionnaire. Apart from their job profile and job satisfaction the main questions put before them were regarding-

- Duration of the course.
- Course content, whether they want to remove any of the subject or topic within a subject, if yes then which one.
- If they find the current course content exhaustive or some new subject or topics need be included, if yes then what.
- Do they find themselves able to deal with the current field situations, if not what need to be done.
- Are they aware of new technologies being used in forestry and do they find the current training will make them competent enough to practice them in field.
- What else they would like to have in order to perform better.

On the basis of their feedback, an analysis was done and the outcome was as below-

S. No.	Subject Matter	Agree / (Yes)	Partially agree /(Not	Disagree/ (No)

			confirmed)	
General Feedback (Non-Training) Analysis				
1	Are they well aware of their job profile , duties and responsibilities	58	2	4
2	Are they satisfied with their job	47	7	10
3	Are they looking for some other job	23	0	41
4	Are they satisfied with the field situation vis-à-vis their responsibilities	0	17	47
Training Framework Feedback Analysis				
5	Are they satisfied with the duration of the training	58	4	2
6	Are they find the whole curriculum worth it	12	10	42
7	Will they like to include new topics in the curriculum	47	10	7
8	Will they like to exclude few topics from the curriculum	50	7	7

Most of the participants are well aware of their duties and satisfied with their job, but still a large number of them (around 23%) are looking for some other jobs. One reason of this may be the higher educational qualification they possess.

Surprisingly, none of the respondent is satisfied with the field situation vis-à-vis their responsibilities. The related responses suggest that there is a lack of basic infrastructure in the field and shortage of field staff has also a negative impact on their performance.

These have been included in the non-training needs.

As far as training related responses are concerned, most the participants do agree that the duration of the course is proper, i.e. they endorse the 06

months period for the training programme. Looking at the varied disciplines in the curriculum this is well justified as well and accordingly it is being proposed.

Maximum responses find the current curriculum worth but still large number of respondents find a number of topics be removed from the curriculum and few new to be added. A deeper analysis of the responses suggests that Forest Engineering, Silviculture, Surveying, a large part of Forest Utilization have become redundant and time allotted to these topics be utilized for Computer training, GPS and GIS introduction and hands on sessions for these. Participants have also urged to include basics of Carbon sequestration; global warming issues, Biodiversity and environment related laws so that they will find it easier to convince communities regarding protection and conservation of forest resources.

9. Identification of Training Need

Directorate of Forestry Education, Ministry of Environment and Forests (and Climate Change), Government of India in it's guideline, identifying training needs, states that – **" Forestry sector is faced with a number of new challenges due to population pressure and emerging needs of the civil society. To cope with the situation, there has to be special focus and emphasis on the human resource development aspect at all levels. Foresters and Forest Guards are at the cutting edge of the forestry hierarchy who are always in constant touch with the people catering to their forestry related needs. They are main catalysts for implementation of the forest related rules, regulations, conservation and development activities. The efficiency and he effectiveness of the State Forest Department depends much on the performance level of these officials. Training of these officials, therefore , must be of high quality and standards which can be achieved through enriching and updating the course contents keeping in view the emerging needs of the forestry sector, providing adequate facilities for the training of these personnel and modification of training Rules accordingly"**

With the above objectives in mind, the training needs for Forest Guards are being identified.

10. Training and Non- Training Implications

The Forest Guards are expected to protect the Forest and Wild Life effectively, Implement the developmental policies of the government with efficacy and in a larger context work for a clean, green and healthy environment by involving people. The objective of training lies in preparing the Forest Guards to achieve these goals with limited resources in their hands.

The participants, who are the fresh recruited Forest Guards, though need a basic minimum qualification of High School, but most of the times they posses much higher educational qualifications. This has its advantages and disadvantages both. On one hand it makes it easier for them to imbibe the new skills and learn new subjects related to forestry, wild life, biodiversity etc., on the other hand a number of things has to be unlearned so as to be "**field fit forester**".

Forest is a complex system and so is the process of training. The participants of the training programme have to be trained in various core subjects related to forestry and sustainable management of forests. The participants coming from different backgrounds are to be brought to the same level. The objective of the training is not to teach them Botany, Silviculture, Engineering, Entomology, Soil Science etc., but to make them learn field application of the fundamentals of these subjects and build up their skills so that they are able to use them in forest management.

There is also a need to train them in soft skills because they have to interact with the local people, convince them about eco services the forests provide to them and sought their support in management of forests and implementation of government's policies.

At the same time, they have to be very tough, mentally as well as physically so as to face very adverse situations while dealing with forest mafias, poachers, mining mafias, encroachers and other forest criminals.

In order to achieve a comprehensively and effectively trained batch of Forest Guard, the training must inculcate a sense of pride for the service they have joined and they must feel motivated and elated to be there at the training centre. The schedule of training must be so designed that they feel it interesting and not monotonous. This is the reason why the module proposes field visits at least twice a month and the module itself provide sufficient time for sports and other extracurricular activities.

11. Knowledge, Skill and Attitudinal Deficiencies

The Forest Department is one of the oldest departments which started during British period. For long, this department worked in seclusion. It was in 1970s when Social Forestry projects were launched, interaction with people started. The department was in a way self sufficient in the sense that its officers and the staff did everything in forests by themselves, be it forestry, engineering, survey, veterinary activities, civil construction of roads and buildings or anything else, and so was the training programme designed. The reason being that forest areas were mostly remote and connectivity was poor. Forest Guards were the people who stayed in their beat round the clock with sole responsibility to protect and manage forests in his/her beat.

Now, everything has changed. Forests are easily approachable and quality services are readily available. The responsibilities of Forest Guards have changed and have become multifarious.

The direct recruitment of Forest Guards in the state is done by the Subordinate Services Selection Commission, UP. The basic educational qualification to be eligible to appear for recruitment is metric pass (High School) in any discipline. Those who clear the written exam, must satisfy the following physical standards-

Physical Standards	Male Candidates	Female Candidates
Height	168 cms.	152
Chest / Weight	84 cms. Chest	45 to 58 Kg. Weight
Walking	25 Km. in 04 hours	14 Km. In 04 hours

Although, the minimum qualification for this job is High School, but in a sample of 70 forest guards, who were included in the survey, it was found that they posses much higher educational qualifications. A brief look at their qualification is given below-

Qualification	**Arts**	**Science**	**Commerce**	**Total**
High School	0	0	0	0
Inter Mediate	0	5	0	5
Graduate	19	22	2	43
Post Graduate	15	6	1	22
Total	34	33	3	70

Thus we have at hand a much qualified set of participants who have sound fundamentals and ability to grasp new knowledge and skills much easier and need of the hour is to build and develop an efficient Forest Guard using his / her existing knowledge and sharpening his/her skills.

Though they have much higher qualification and this makes it easier to train them in slightly complicated issues as well, BUT they are not well versed with the core issues of forest management, the forest laws and the IPC and CrPC and many other acts and regulations in the state. As mostly, they a fresh from colleges, the attitudinal aspect is also very important.

The knowledge, skills and attitudinal deficiencies perceived are as follows-

(i) Lack of knowledge of core forestry (Silviculture, Wild Life, Soile science etc.).

(ii) Lack of knowledge of related topics (Survey, Soil science, field botany, zoology, and entomology).

(iii) Lack of knowledge of Forest Acts and related laws.

(iv) Lack of knowledge of IPC, CrPC and there relevance in their job.

(v) Lack of awareness regarding current issues in Biodiversity, Environment, global warming, carbon credit etc.

(vi) No exposure to modern survey instruments and use of weapons.

(vii) No or very little exposure – interacting with people or facing public.

(viii) Physical fitness.

12. Training Strategies

The training is being proposed on the basis of feedback received and discussions with the senior officers as follows-

(A) Duration of Training : 06 Months

(B) Training Design: The training is divided into two parts as below-

The present training Syllabus and structure for training of Forest Guards is designed by keeping a right mix of indoor / class room training, outdoor training and field excursions. For this purpose, an estimate of **Net Time Available** is also done before allotting

number of classes/ hours to each module/ subject. Further it has been kept in mind that how deep knowledge of each subject is needed to perform the duty efficiently in the field situation, and accordingly the time has been allotted to each activity.

(C) **Trainers-** For the training in core forestry subjects, a well trained faculty is already available. Apart from the regular faculty, officers and the staff of the department, who have excelled in some particular field, will be invited as guest faculty.

It has been experienced by many officers that a lot many case when tried in the court of law are lost just because of minor issues, like lack of or improper evidences, flaws in writing description of the incidences in H-2 case and so on. Therefore, lawyers pursuing the forest cases in various courts, will be invited to give their inputs and train the Forest Guards so that their skills in issuing H-2 cases are upgraded.

For emerging issues, like Biodiversity conservation, Climate change, global warming, carbon sequestration and carbon credit etc. people working in field and having grass-root knowledge, rather than theoretical knowledge will be involved, like there may be some NGO working closely with the rural people in these fields.

For physical training, retired army personal has already been engaged. Weapon training will be done with the cooperation of the State Police Department.

(D) **Training Aids-** Training of Forest Guards is multifaceted and hence training aids will be selected accordingly. Broadly, following will be used during the course-

(i) White Board
(ii) Power Point Presentations
(iii) Hand Outs
(iv) Online videos and short movies
(v) E-learning Application
(vi) E-notes
(vii) To break the monotony and to give exposure to field situations, regular visits to field will be embedded in the course. Short day visits to nearby

places and tours for 03 to 05 days will be organized with specific objectives.

(viii) Sports will be a regular feature and cultural programmes will be organized during the training programme.

13. Design Brief

Aim: The aim of the redesigned training programme for Forest Guards are as follows-

(i) To equip the Forest Guards with knowledge and skill in such a manner so that they are able to contribute efficiently in sustainable forest management.

(ii) To make them aware of the climate issue so that they are able to convince the forest dwellers about conservation programmes of the government.

(iii) To equip them with the state of art gadgets with appropriate knowledge to use them in order to work with efficiency and efficacy.

(iv) To make them physically and mentally strong enough so that they are able to contain the forest mafias and act as deterrent to forest offenders.

14. Budget

The budget for training of forest guards is provided by the State Government to the Forest Department under the Budget Head 44 - **izf"k{k.k gsrq ;k=k ,oa vU; izklafxd O;;A**

Apart from this for regular activities the budget is provided under other budget heads like Pay, Dearness Allowance, Other Allowance, Office Expenditure, Travelling Allowance, Medical Reimbursement, Electricity, Water Charges, Rent, Labour charges, Maintenance and repair of vehicles, Petrol and Lubricants, Stationery etc.

15. Validation

Internal Validation-

(i) Efficiency and efficacy of the training is assessed by getting feedback from the trainees.

(ii) Questionnaires will be given to the trainees and they will respond to the questionnaires.

(iii) Since most of the subjects continue in both the terms, a mid term internal validation will also be done.

External Validation-

(i) Once the Forest Guards pass out from the training Institute / centre, collecting information regarding their performance, efficiency, efficacy and their ability to apply their skills in problem solving ,

(ii) Getting feedback from the organization, i.e. the Forest Department to determine whether the new design has actually helped in acquiring new and enhancing their existing skills and how much it has helped in raising the performance level of the so trained forest guards.

16. Assessment

(i) The proposed Forest Guard 06 months training programme is bifurcated in two semesters. There will be formal exams at the end of each semester to make complete assessment.

(ii) Formative assessment is proposed in each learning unit. This will be in the MCQ format, through Quiz and debates.

(iii) Assessment through formal field exercises in relevant topics, like Forest Survey, PRA, field botany, nursery management etc.

(iv) Group presentations will also be there on different identified topics/issues to assess the level of understanding.

(v) Optimum utility of training in terms of social, financial and temporal terms will also be assessed.

17. Constraints

(i) **Limited capacity of training Centers:** Five Forest Guard training centers in the state have maximum capacity of 150 Trainees. The skewed recruitment of Forest Guards in the last 3-4 years (938 in all) has rendered this capacity inadequate.

(ii) **Lack of Basic Infrastructure:** The basic infrastructure at the centers is not up to the mark. Hostel rooms are not well maintained and basic amenities are lacking. Computers and peripherals are mostly obsolete and need immediate up-gradation. The Centres at Meerut, Mau and Mirzapur don't have vehicles for field visits and excursions, which is an essential and formative component of the programme.

(iii) **The Trainers:** The faculty, except at FTI, Kanpur, is not permanent at any of the centers and the DFO in-charge manages the programmes with the help of local officers and staff.

(iv) **The Schedule:** The Induction progammes are scheduled from 01st of January and 01st of July every year. Many times the Forest Guards are sent to join field before undergoing the Induction programme, in such cases, they are not relieved for training in time due to ongoing forestry activities in the field, either plantation or Advanced Soil Work, which are time bound activities.

18. Benefits

The benefits from the training being proposed for the Forest Guards in the field of dealing with forest crime are as below-

(A) Benefits for the Trainees: The comprehensive redesigned training will-

(i) Enhance their knowledge base which in turn will help increasing their professional efficiency.

(ii) Acquiring new skills, like computers, use of GPS and GIS systems, weapon training etc. will help building their confidence and they will be able to perform their duty meticulously.

(iii) Field visits and interaction with senior officers will develop professionalism in their approach.

(iv) Interaction with the forest dependent communities will inculcate a right attitude towards people.

(B) **Benefits to the Organization, the Forest Department**

(i) The Forest Guards with new and appropriate skills will help department to reach out to the people more easily, thus making it easier to promote, disseminate and implement its policies more easily.

(ii) The wide knowledge base of the frontline staff, the Forest Guards will definitely help better management of forests with broader objectives.

(iii) Better equipped and trained Forest Guards will be able to protect the forests and Wild Life much more efficiently and thus reducing losses to the department.

19. Client

The UP Forest Department will be the client.

20. Outcomes

The World is now looking for sustainable management of natural resources as it cannot ill afford to delay the efforts to contain further degradation of its environment. It has also been realised that the forests play pivotal role in checking the degeneration of ecosystem. The ecosystem services that forests provide have now been linked to economic services either through carbon credit mechanism or direct losses of life and property due to extreme weather conditions, the global warming and expected loss due to this. Extinction of certain species, both faunal and floral have broken one of the food chains and the impacts are seen in the form of new diseases, some endemic and some pandemic. It is he forest service which has to play the central role in safeguarding the future, and equipping the cutting edge forest staff with new skills, knowledge and ability to lead is the only way out. The new design for the Forest Guard Induction training programme is definitely be a huge step forward in this direction.

21. Target Group and Problems

Target group of this designed training programme is the newly recruited Forest Guards. As against the sanctioned strength of 3913 Forest Guards in the state of Uttar

Pradesh, currently only 2129 are in place. This implies that in near future, almost 1784 Forest Guards need to be recruited. The fresh blood in the service will be a boon to the department and equipping them with new technologies and skills will help the department take a giant leap forward in achieving its designated goals.

The Forest Guards in field are facing problems due to lack of knowledge of emerging issues, poor and obsolete technologies and poor support system. The forest crime scenario has undergone a sea change and criminals are using state of art vehicles for transportation, communication devices and weapons. On the other hand, the Forest Guards are still patrolling on Bicycle with *lathis* in their hands. Even when they have arms, poor or no formal training makes it useless.

Thus it is most urgently required to upgrades skills, equip them with state of art technologies and train them in using these so that they may perform to the expectation of the organization.

22. Target Population

The target group of this training is the fresh recruited Forest Guard of the UPFD and also those who have not undergone induction training. The number at present is 121. This also can be expected that the impact of redesigned module will start showing its impact once appreciable number of so trained forest guards are in place in the field. It is a good sign that another 648 Forest Guards are being recruited in the state in 2021. Thus, this design is being proposed at very appropriate time.

23. Conclusion

It is very obvious that environment and forest are at the center stage of discussions at national and international level. The backbone of forest management is the front line staff and the Forest Guards at the cutting edge, The Forestry training Institute at Kanpur and five other Forest Guard Training Centres bear the sole responsibility of training the forest guards to make them "**field ready**" in all respect- their knowledge, their skills and their physical fitness.

The course under review, i.e. **redesigning the induction course for Forest Guards** has the sole purpose to achieve the above objectives. It was essential to remove completely few topics or reduce their content, as they are not very apt in current working conditions. Furthermore, it was also necessary in view of creating space for emerging technologies and issues in the programme. The necessity and benefits of these changes have been mentioned in the report at appropriate place. This has also been substantiated by the survey and feedback.

Since the course for Forest Guards in different states is in line of the guidelines issued by the GOI, therefore it is also expected that the redesigned course will go a long way in improving the output and quality of services being rendered by the Forest Guards not only in the state of Uttar Pradesh but other states will also emulate it.

Annexure-1

Estimated Net Time Available in a Six Month Period

S.No.	Particulars	Days
1	Sundays excluding tour period	(-)16
2	Second Saturdays	(-)06
3	Gazetted Holidays excluding tour period	(-)7
4	Total Available Days	151
Distribution of Days for Training		
(A)	Joining Day	01
(B)	Inauguration	01
(C)	Relieving Formalities	01
(D)	Examinations	10
(E)	Annual Sports	02
(F)	Marathon	01
(G)	Cultural activities	01
(H)	Preperation of Results	03
(I)	Tour Days	30
(J)	Days For Class Room Training / Lab	101
(K)	No. of sessions (Forenoon) of 50 minvutes each	404
(L)	No. of sessions (Afternoon) of 50 minutes each	202
(M)	Total sessions of 50 minutes available	606

Annexure- 2

Design of Learning Unit

S. No.	Learning Unit/ Enabling Objective	Content and Sequencing	Method	Media	Performance Aid	Sessions of 50 Minutes	Assessment
1	Silviculture-1	**Introduction**: 1. Brief history of forestry in the State. 2. Overview of forest resources of the State. 3. Different categories of forests of the State.	Lectures	White Board /Computer /Hand Outs/ E-notes	Checklist	02	Formal Exams / Quiz / e-papers (MCQ)
		Role of forests: 1. Importance of forests – general and special. 2. Protective/Productive/Aesthetic functions. 3. Environmental Conservation. 4. Effect of forests on climate 5. Forests as Carbon Sink (Concept of Carbon Sequestration)	Lectures / group discussions	White Board /Computer /Hand Outs/ E-notes	Checklist	04	
		Growth of tree: 1. Tree growth, various stages of tree: seedling, sapling, pole, tree. 2. Parts of tree – stem, branches, crown.	Lectures	White Board /Computer /Hand Outs/ E-notes	Checklist	03	
		Growth of forests: 1. Factors affecting growth climatic, topographic, edaphic, biotic. 2. Impact of underlying rocks on soil; Soil/ rock types of the State. 3. Concept of soil profile, important characteristic PH, porosity. 4. Nutrient cycle, humus & soil organic matter.	Lectures	White Board /Computer	Checklist	04	
		Field Botany: 1. Basic botany – Plant morphology – leaf, stem, flower, inflorescence, fruit, seed. 2. General idea of photosynthesis- C, N, H_2O. 3. Local, English, Botanical name of 50 important selected species along with their habitat, identification, characteristic.	Lectures / Specimen display	White Board /Computer /Hand Outs/ E-notes	Checklist	07	
		Practical's: 1. Identification of tree / soil-rock types 2. Collection of herbarium specimen, field identification, features phenology of 50	Laboratory / field			20	Lab Practical /Viva-voce

		selected species.					
2	**Forest Protection and Laws** **Part- A** **Biotic and Abiotic factors:**	**Introduction:** 1. Factors responsible for depletion of forests man, cattle, fire and other natural calamities.	Lectures	White Board /Computer /Hand Outs/ E-notes	Checklist	06	Formal Exams / Quiz / e-papers (MCQ)
		Forest fires: 1. Causes, types, evil and beneficial effects. 2. Preventive measures – fir lines, early control burning. 3. Fire mapping through Satellite Imagery. 4. Reporting of fire damage.	Lectures	White Board /Computer /Hand Outs/ E-notes	Checklist	06	
		Grazing Lopping: 1. Effects of cattle grazing on forests. 2. Preventive measures – regulation, rotational grazing, fencing in regeneration areas.	Lectures	White Board /Computer /Hand Outs/ E-notes	Checklist	04	
		Man : 1. Illicit felling – causes and effects, introduction to control measures 2. Encroachments, maintenance of boundaries of forests & laws dealing with encroachments. 3. Use of GPS in boundary demarcation and pillar fixing.	Lectures	White Board /Computer /Hand Outs/ E-notes	Checklist	08	
		Duties and responsibilities of Forest Guards: 1. In protection of forests – extension. 2. Roles of people. Village forest (protection) Committees.	Lectures / Group Discussion	White Board /Computer /Hand Outs/ E-notes	Checklist	10	
		Forest Law- Salient Features of :- 1. Indian Forest act.1927 2. Wildlife(protection) Act 1972 3. Forest (Conservation) Act 1980.	Lectures / Debate	White Board /Computer /Hand Outs/ E-notes	Checklist	16	
		Definitions: 1. Forest, cattle, Forest produce, Forest Offences, Forest Officer. 2. Study to Specific provisions of state Forest Act relating to UP. 3. Legal classification of forests – RF/VF/PF. 4. Acts prohibited in different categories of forests. 5. Punishment for violation of prohibited act. 6. Special provision regarding – seizure, search and confiscation. 7. Types of permits for transit of forest produce and authority to issue them, general rules for issue and checking of permits. 8. Types of hammers – properly hammer, felling hammer, passing/seizure hammer/drift	Lectures / Group Exercises	White Board /Computer /Hand Outs/ E-notes	Checklist	26	

		timber / private timber. 9. Introduction to various acts / rules and their objects. 10. Rules relating to detection. Enquiry and disposal of forest offences. 11. Drawing up of a seizure list filing of F.I.R. 12. Recording of statement, collection of evidence, arrest and release of offenders.					
		Practicals: Fire lines and boundary clearances. Control burning/ drawing up FIR/ seizure list/ offence report.	Field exercises			10	Practical and Viva - voce
3	Silviculture-II	**Introduction to the concept of forest management**: Growth, increment, sustainability, remover, rotation.	Lectures	White Board /Computer /Hand Outs/ E-notes	Checklist	06	Formal Exams / Quiz / e-papers (MCQ)
		Natural regeneration / management of natural forests: 1. Introduction to growth characteristic of natural forest stand structure. 2. Regeneration as pre- requisite for removal of mature trees. Silviculture systems – definition, types (high forest/coppice). 3. Study of following systems with respect of characteristic of forests for application , nature of resulting crop and regeneration , distribution of harvest (diffused/concentrated) 4. Clear felling system – coppice / uniform. 5. Selection system. 6. Method and importance of regeneration survey. 7. Important marking rules for different system.	Lectures	White Board /Computer /Hand Outs/ E-notes	Checklist	08	
		Regeneration of Bamboo , canes , reeds and grass lands : 1. Special characteristics of these types of forest crops. 2. Classification and important cutting rules. 3. Subsidiary silvicultural operations and improvement works, cleaning of clumps , half-moon trenches . 4. Introduction to National Bamboo Mission.	Lectures	White Board /Computer /Hand Outs/ E-notes	Checklist	04	
		Man made forests : 1. Need for plantations – reforestation / afforestation. **2. Steps in plantations:** 3. Site and species selection 4. Nursery 5. Preparation of plantation site 6. Plantation 7. Post plantation works	Lectures	White Board /Computer /Hand Outs/ E-notes	Checklist	20	

		8. Management of plantations. 9. **Nursery works :** 10. Temporary / permanent site selection. 11. Collection of seeds / storage /treatment (details of some Important species including time of fruiting , seed collection, methods , seed selection , gradation) pre treatment . Viability germination, seed requirement per Ha. 12. Detailed nursery technique. 13. Layout, bed preparation, soil/ compost preparation, poly bag filling, root trainer filling, sowing transplanting, grading, nursery shade , weeding, manuring and watering, use of insecticides / pesticides. 14. High Tech Nursery – tools and techniques 15. Preparation of planting stock, root- shoot cutting, budding, grafting, layering. 16. Maintenance of nursery register. 17. Raising of tall plants.					
		Plantation : 1. Treatment map. 2. Demarcation of plantation site. 3. Preparation of plantation site. Alignment & stacking. 4. Plantation layout – sections, inspection paths. 5. Pitting – time and size planting out. 6. Use of pesticide. 7. Plantation root-shoot cutting. 8. Clonal plantation and grafting techniques. 9. Plantation season. 10. Causality replacement. 11. Preparation and maintenance of plantation journal.	Lectures	White Board /Computer /Hand Outs/ E-notes	Checklist	12	
		Post plantation operation: 1. Weeding / soil working – mulching, staggered- trench. 2. Manuring, fertilizer application. 3. <u>Introduction to Organic Manures.</u> 4. Survival growth assessment.	Lectures	White Board /Computer /Hand Outs/ E-notes	Checklist	04	
		Maintenance of Regeneration area: 1. Tending operations, methods improvement felling. 2. Climber control – necessity in young / old Regeneration area.	Lectures	White Board /Computer /Hand Outs/ E-notes	Checklist	05	
		Rehabilitation of degraded forests: 1. Rehabilitation techniques. 2. Protection cleaning / singling, nature and properties of	Lectures	White Board /Computer /Hand	Checklist	04	

		rooted wastes. 3. Plantation of important species.		Outs/ E-notes			
		Introduction to the concept of Working Plan.	Lectures / Group exercise	White Board /Computer /Hand Outs/ E-notes	Checklist	04	
4	Survey and Engineering	**PART: A SURVEY :** 1. Simple knowledge on Angle . Triangle, Circle, Area of triangle , Rectangle Square. Circle and Cylinder. **2. Chain survey:-** 2.1 Testing the accuracy of a chain. 2.2 Elementary idea on chain survey and its applicability. 2.3 General idea about ranging offset and optical square & compass. 3. Elementary principles of map reading . 4. Use of GPS In survey. 5. Creating polygon and, Calculation of area with the help of GPS 6. Use of Google Earth, on line application for locating Plantation site	Lectures / Field Exercise	White Board /Computer /Hand Outs/ E-notes	Checklist	20	Formal Exams / Quiz / e-papers (MCQ)
		Part –B MEASURMENT: 1- Measurement of diameter and girth of the standing trees. (a) Breast height Measurement under different situations. (b) Measurement with caliper and tape. advantages & disadvantages. 2- Measurement of height with haga altimeter and shadow and stick method. 3- Simple calculation of basal area and volume of trees. 4- Calculation of volume of stacked timber. 5- Calculation of mortality percentage in a plantation, inter sampling. 6- Manpower planning with reference to out-turn of works .	Lectures / Quiz	White Board /Computer /Hand Outs/ E-notes	Checklist	12	
		Practicals : Maintenance and demarcation of a forest coupe, Boundary line of a forest, various types of Measurement of tree: calculation of plot area / volume of timber log sawn and stacked.	Field Exercise			20	Practical and viva-voce
		Part C FOREST ENGINEERING: **1- materials** – (a) Bricks – characteristic of 1st class bricks. No of bricks required for 100 cft. of bricks works. (b) Concrete – lime cement and	Lectures / Quiz	White Board /Computer /Hand Outs/ E-notes	Checklist	04	Formal Exams / Quiz / e-papers (MCQ)

		R.C.C. : (c) Plastering and Painting, Cement plaster, Preparation of surface for plastering and painting, curing and its objects.					
5	**Forest Utilizatiion**	**Part –A: Wood products** **1. Wood Products: Timber and Fire – Wood.** (a) Implements used in felling and logging –Axe Saws: general rules for economic felling ; advantages of different modes of felling . (b) Season for felling . (c) Grading **2. Disposal of Timber** (a) Working of Government agency. (b) Working by purchasers including Forest Corporation and Co-operative societies. (c) Various types of depots – Forest depot , Transit depot , Sale depot (d) Records / returns for a,b,c, above 3. Use of timbers of common species , introduction to wood seasoning and wood preservation 4. Common defects in timber such as abnormal growth dry rot, red rot, heart rot, borer attack , bends and twist , climber attack and kinds of shakes. 5. Fuel–Wood and charcoal : (a) Method of cutting, collection, stacking of fuel wood. (b) Method of measuring (by volume and by weight) drying percent. (c) General idea about demand / supply of firewood fuel saving devices smokeless improved chullha, biogas plants, solar cookers.	Lectures / Quiz	White Board /Computer /Hand Outs/ E-notes	Checklist	22	Formal Exams / Quiz / e-papers (MCQ)
		Part – B: Non – wood Forest Products 1. Name and use of important items of N.T.F.P.such as sabai grass, Lemon grass ,Rosa grass, Thatch grass Barks, Honey Wax , Resin Gums , Lac Tussar cocoons , katha , Mohua Dyes. 2. Use of oil seed (Sal, Neem Eucalyptus, Rosa , Khus etc.) 3. Working of Tendu Leaves 4. Important Medicinal plants – Trees, Herbs, Shrubs - techniques of ex-situ conservation. 5. Forest foods – tuber, leaves, fruits , seeds, etc.	Lectures / Quiz	White Board /Computer /Hand Outs/ E-notes	Checklist	20	Formal Exams / Quiz / e-papers (MCQ)
6	**Wildlife Conservation**	**Introduction, importance of wildlife:** 1. Aesthetic, recreational and	Lectures / Quiz/Film	White Board	Checklist	04	Formal Exams / Quiz / e-

		cultural values. 2. Economic values (Financial value to state and individual) 3. Scientific values	Shows	/Computer /Hand Outs/ E-notes			papers (MCQ)
		Management of wildlife : 1. Protected area network in the country	Lectures / Quiz	White Board /Computer /Hand Outs/ E-notes	Checklist	04	Formal Exams / Quiz / e-papers (MCQ)
		Field techniques in wildlife: 1. Census techniques: definition, objects, methods ,track & trails, kill evidences marking total Block counts . 2. Field techniques in wildlife management, data collection and assessment techniques viz. vegetation sampling density. 3. Monitoring techniques for large herbivores and carnivores 4. Habitat assessment and monitoring. 5. Damages caused by wildlife 6. Habitat and habitats – migration, migratory birds, breeding seasons, habitats of important birds and animals. 7. Foot prints of animals with paws animals with hooves, bird tracks, preparation of foot print traces and preparation of plaster casts . 8. Feeding signs on kills , recognizing kills made by tiger 9. Wildlife remains. 10. Dropping and pellets.	Lectures / Quiz / Film Shows	White Board /Computer /Hand Outs/ E-notes	Checklist	20	Formal Exams / Quiz / e-papers (MCQ)
		Distribution of wildlife in India with particular reference to UP.	Lectures / Quiz	White Board /Computer /Hand Outs/ E-notes	Checklist	04	Formal Exams / Quiz / e-papers (MCQ)
		Legal Instruments: -Wildlife (protection) Act 1972	Lectures / Quiz	White Board /Computer /Hand Outs/ E-notes	Checklist	10	Formal Exams / Quiz / e-papers (MCQ)
		Management of wildlife sanctuaries and National Parks with particular reference to the state.	Lectures / Quiz	White Board /Computer /Hand Outs/ E-notes	Checklist	06	Formal Exams / Quiz / e-papers (MCQ)
		Management of wildlife habitat 1- General principal 2- Salt licks , water holes ,water towers meadow development 3- Zoo Management, Captive breeding, enclosures of different types. Handling of rescued animals, their	Lectures / Quiz / Film Shows	White Board /Computer /Hand Outs/ E-notes	Checklist	12	Formal Exams / Quiz / e-papers (MCQ)

		rehabilitation, animal nutrition in captivity and principles of record keeping. 4- Concept of safari park					
7	**Accounts and Procedures**	1. Different types of vouchers for payment, muster rolls measurement books their preparation and maintenance register of sanctioned works completion reports lost or missing receipts / vouchers. 2. Procedure of handing over – taking over charges . charge reports. 3. Leave Rules – Earned Leave, Casual leave without pay, Half pay leave , Commuted leave . 4. Travelling Allowance Rules and preparation of T.A. bills and T.T.A. bills 5. Maintenance of consumable store register, register of stores, tools / plants writing off unserviceable stores. 6. Basic elements of labour laws. 7. Organizational structure of the department .	Lectures / Quiz	White Board /Computer /Hand Outs/ E-notes	Checklist	25	Formal Exams / Quiz / e-papers (MCQ)
8	**Community Forestry and Rural Development**	**Introduction –Definition and scope** **Components of Community Forestry:** 1. Agro forestry, farm forestry, urban forestry, recreational forestry 2. Strip plantation along road, canal, railway line. 3. Community plantation – Village wood lot role of community development, protection of village forests and distribution and marketing of produce.	Lectures / Quiz	White Board /Computer /Hand Outs/ E-notes	Checklist	**24**	Formal Exams / Quiz / e-papers (MCQ)
		Motivation and Extension Method of extension Farmer's camps, nature awareness camps, forest protection camps.	Lectures / Group Exercise	White Board /Computer /Hand Outs/ E-notes	Checklist	**04**	Formal Exams / Quiz / e-papers (MCQ)
		Participatory Forest Management 1. Need for role of community in forest regeneration and protection 2. Interaction with local people for explaining programme and assessing their needs. 3. Village level societies, forest protection committee role of NGOs in participatory forest management, Mahila Mandal. Tree Growers Co-operative Societies etc. 4. Role of forest guards in the societies. 5. Techniques for collection of data / information for preparation of micro-plan by	Lectures / Quiz/ Group Exercises	White Board /Computer /Hand Outs/ E-notes	Checklist	**18**	Formal Exams / Quiz / e-papers (MCQ)

		involving people (PRA & RRA Techniques)					
		Practical Exercise 1. Collection of data of village communities on different forms for preparation of micro planning 2. Role of forest officials in village forest . **3.** Group exercise on Motivation and Communication skill. Evaluation of various extension strategies	Field Exercises			30	Project writing and viva-voce
9	Environmental Conservation – A General Overview	1. Overview of forestry scenario including problems, proposals concepts of Environmental Conservation. 2. Eco – tourism.	Lectures / Quiz	White Board /Computer	Checklist	25	Formal Exams / Quiz / e-papers (MCQ)
10	Computer Basics	1. Basic knowledge about computers. 2. Working knowledge of MS Word, MS Excel and Power Point 3. Use of Internet 4. Detailed knowledge about Nursery Management System (NMS) and Plantation Management System (PMS) 5. Knowledge about e-mail	Lectures / Quiz / Hands on Sessions	White Board /Computer	Checklist	60	Formal Exams / Quiz / e-papers (MCQ) / hand on problem solving
11	Special Acts	1. The Air (Prevention and Control of Pollution) Act, 1981 1. The Environmental (Protection) Act, 1986 2. The Public Liability Insurance Act, 1991 3. The Biological Diversity Act, 2002 4. The Forest Right Act, 2006 5. U.P. Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules, 2018	Lectures / Quiz	White Board /Computer	Checklist	30	Formal Exams / Quiz / e-papers (MCQ)
12	Law Basics other then Forest Laws	1. Important provisions of IPC and CrPC. 2. Law of Evidence	Lectures / Quiz	White Board /Computer	Checklist	20	Formal Exams / Quiz / e-papers (MCQ)
13	Introduction/ use of Emerging Aspects/ Technologies	1. Use of Drones in (a) crime detection and shifting of boundary pillars (b) Detection and control of illegal mining	Lectures / Quiz	White Board /Computer	Checklist	20	Viva voce

ANNEXURE-3

Field Tours 40 days (including 10 Sundays)

S. No.	Learning Unit / Enabling Objective	Content	Period
1	Wild Life Management	Protected Area (national Park/ Sanctuary), Zoos and Safari	10
2	Plantation Management	Natural regeneration, Artificial regeneration, Usar area Plantation, Ravine Plantation, Rail-Road and Canal Plantations	14
3	Nursery Management	Departmental Normal Nursery, Departmental High tech Nursery, Private (kisan) Nursery	8
4	Community Forestry	Village visit , Resource mapping, PRA and RRA exercises	4
5	Forest Utilisation	Working of Forest Corporation- Felling, Forest Corporation Depots	4

ANNEXURE-4

Outdoor Activities Other than Tours

S. No.	Learning Unit	Period
1	Morning Jogging and Physical Training	Daily except on Sundays, Gazetted Holidays and on Tours
2	Sports	Daily in the evening
3	Self Defense Training (Marshal Arts)	Two Weeks
4	Weapon training	Two Weeks
5	Drill	Daily except when Self defense training / Weapon Training