

STUDY GUIDE

TERI University led Consortium Mid-Career Training of IFS OFFICERS

(Phase IV, Eighth Cycle)

August 17 – October 9, 2015



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यहाँ है खुशहाली।।

Ministry of Environment and Forests
Government of India

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Ministry of Environment and Forests
Government of India

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Welcome to the Course

We take this opportunity to welcome Indian Forest Service Officers for the Mid-Career Training (MCT) Programme (Phase IV) - Second cycle. The MCT is being organised by TERI University led consortium which comprises of TERI University as coordinator (lead partner); TERI, New Delhi; Wildlife Trust of India, Noida (Wildlife Module partner); Indian Institute of Management, Lucknow (Management Module partner); Yale University, United States and University of Eastern Finland, Joensuu (Foreign Module partners) in collaboration with Indira Gandhi National Forest Academy, Dehradun.

MCT is an ambitious training programme which aims to provide best training opportunities to the officers by collaborating with the best training institutions in the country and abroad. The philosophy and approach this programme is to provide “Next Level Competency” to the Indian Forest Service officers who are within the service bracket of 16-18 years. The officers at this stage have been exposed to broad range of issues at local level, and are now moving to next phase in their career where they would be expected to handle issues at national and international level. Through this training the officers will make smooth transition to next level of responsibilities. This process, apart from imparting knowledge, creates a fuller understanding of the beliefs and values of multiple stakeholders and helps to stimulate novel insights, solutions and strengthen leadership qualities as well as enhance self-fulfilment important skills required by forest offices in the implementation of their daily tasks.

The course objectives involve training the forest officers to think across disciplines, to look for solutions based on problem-solving approaches, to be able to use cutting edge tools and techniques, and to be prepared for the many challenges that lie ahead.

In this regard, this study guide gives a snapshot of the eight week training programme. It provides information to the course curriculum, assignment, evaluation, information about organising institutes, key speakers and useful details about host cities.

We hope that this MCT programme adds value to your professional growth and achieves its designed objectives. Wishing you all the very best!

Objectives of MCT (Phase IV)

The Phase IV has been designed to achieve the following objectives:

- To enhance professional knowledge about application of modern technology/skills in forest management
- To facilitate better comprehension of far reaching developments/changes taking place in the sector at all levels including national, regional and international.
- To ensure the understanding of the policies and programs related to social welfare, poverty alleviation and integrated development.
- To familiarize participants with principles of general administration including HRD and good governance
- To expose participants to the best practices in the field of forestry/ environmental management during foreign visit
- To assimilate the processes involved in the policy planning/programme formulation and learning from the experience of other countries

Structure of the Programme

The programme is spread over eight weeks with four in-country modules and a foreign module. The programme structure is as follows:

Sl. No.	Module	Duration	Location
1.	Management	17th – 21st August 2015 (1 week)	IIM, Lucknow
2.	Forestry	24th -29th August 2015 (1 week)	IGNFA, Dehradun
3.	Media Management	31st August to 1st September 2015 (2 days)	IGNFA, Dehradun
4.	Environment Management	2nd - 08th September 2015 (1 week)	IGNFA, Dehradun
5.	Wildlife and Biodiversity Conservation	09th- 18th September 2015 (1.5 weeks)	IGNFA, Dehradun & Dudwa Tiger Reserve
5.	Foreign Module	19th September - 3rd October 2015 (2 weeks)	USA/Finland + Russia
6.	Group presentation/ Experience sharing/ Valedictory	5th – 9th October 2015 (1 week)	IGNFA, Dehradun

Assignments

Individual Assignments: Term papers

An analytical term paper will be written by each participant. The participants will be able to select the topic from amongst several options. The list of topics has already been mailed to the participants. These term papers will be judged by external evaluators on several criteria including

- Level of complex, analytical thinking reflected in the written material
- Ability to relate the subject matter to the participant's real world experience and skills
- The degree of innovativeness of ideas and application of a problem solving approach
- Ability to clearly express ideas and thoughts.
- **Plagiarism** of any kind in the assignment would lead to disqualification. It would be checked through software.

The paper has to be submitted **on or before** 7th September 2015 Three best papers would be awarded with certificate of appreciation and all the assignments would be posted on the **e-group** and **MCT alumni website**. These papers will serve as a reservoir of reading material for future sessions/batches of the MCT programme as well as for IGNTA.

List of Assignment Topics for MCT 2015

1. REDD + : An approach for implementing Sustainable Forest Management in India
2. Forest based Carbon Financing: Reality or Myth?
3. Unsustainable harvest of forest produce is a major driver for forest degradation in India
4. Linkages between poverty alleviation and forest conservation
5. Greenhouse gas emission and emission intensity of Indian economy
6. Role of ex-situ conservation for rehabilitation of endangered species
7. Forest certification as tool for monitoring Sustainable Forest Management
8. Tiger conservation in India
9. Community forest resource right under FRA 2006 and SFM
10. Is JFM suitable option for Forest Governance in India ?
11. Forests right Act 2006: A tool for implementing Sustainable forest management
12. Cross border illegal wildlife trade
13. Mitigation and adaptation to climate change through forest conservation

14. Ecotourism: An opportunity for conservation and livelihood
15. Forest conservation Act, 1980: Need to have striking balance between conservation and development
16. Sacred grove and conservation
17. Judicial interventions and Forest conservation
18. Definition of Forests
19. Is Indian Forests Act, 1927 need amendments to implement National Forests policy?
20. GIS based Forest Land Management
21. Effective Decision Making
22. Shortage of front -line staff is cause of concern for forest management
23. Agro-Forestry is key for achieving 33% forest and tree cover goal
24. Bioenergy from forests
25. International Arrangement on Forests (IAF)
26. Assessment of carbon stock in the Forests
27. Man-Animal Conflict
28. Feasibility of conventional silviculture systems in present context
29. Valuation of goods and services provided by forest ecosystems
30. Wildlife conservation beyond tigers

Guidelines for Assignment Submission

The paper must contain the following elements:

- Title - This should be in block capitals, brief and specific conveying the main subject of the contents of the paper. The title should be followed with the name of the participant (in block capitals) along with their affiliation and complete address including e mail id.
- Abstract - Abstract should summarize the content of the paper. It should be accurate, expressive, intelligible and brief (not exceeding 200 words). Do not write references nor display equations in the abstract.
- Keyword - Three to five keywords which are prominently used in the paper and have relevance to the contents should be given following the "Abstract".
- Introduction - It should introduce the topic with a background knowledge/studies related to the topic, justifying the selection of the study and also elaborate in short the objectives of the study.
- Presentation of the article- The contribution should be submitted in the following format:

- » Title
- » Name of the participant along with their affiliation/address,
- » Abstract,
- » Key words,
- » Introduction
- » Material and Methods,
- » Results and Discussion,
- » Conclusion and
- » References- APA style format

Formatting specifications

- All the figures and tables used should be numbered and referred in the text.
- Font to be used: Times New Roman
- Spacing: 2.0
- Alignment : justified
- Size: A4 size paper with a margin of 2.5 cm
- The word limit for the assignment is maximum **7000 words**.

Group Assignments/Presentations

Group assignment will be intimated before proceeding for Foreign Module. There would be six groups each for USA and Finland.

The participants will prepare reports and presentation of their experiences / learning out of the foreign module. These will be done as group tasks. Each group will be evaluated by a panel based on the merit of their report and presentation. There will also be peer evaluation of the group task.

Evaluation parameters

- Participation in all Modules (Management, Forestry & Media, Environment, Wildlife and Foreign)
- Minimum overall 90% Attendance (Attendance will be taken by TERI University in all Sessions including Field visit)
- Minimum 60% Marks has to be obtained for successful completion of Assignment which has to be submitted by 7th September 2015.
- Group Presentation: Group of 5-6 participating officers has to present the learning from foreign Modules in the 8th week of the MCT. Groups and their topics will be intimated before going on foreign Module.

- Conduct of the Participating Officer: The conduct will be jointly assessed by IGNFA and TERI University.
- The active Participation in the session including field visit will be an additional criteria for the purpose of ranking the participating officers. The speakers will be requested to identify the participating officers who participated in the session actively.

Final evaluation score and Ranking of the Participating Officers

All the above methods will be used to arrive at a composite score for each participant. Twenty percent weightage will be given to the marks obtained under parameter 2,3,4,5 and 6. On the basis of total marks, ranking of the officers will be provided to IGNFA.

Evaluation of Faculty / Feedback

1. End-lecture formal evaluation of faculty by participants in terms of
 - » Clarity of presentation and articulation
 - » Relevance, usefulness of content and value addition
 - » Whether course objectives were met
2. Course review and feedback

Resources

Module wise complied reading material (physical as well as digital copy) will be provided to the participants before the beginning of each module. At the end of the course the presentation made by the subject experts would be complied and shared with the participants

Programme Schedule

Course lectures will be held at Ficus Hall, IGNFA. Weekly schedule of sessions will be posted on notice boards in IGNFA in advance under consultation with the course directors of IGNFA.

Attendance will be taken during every session.

Agenda (IIM Lucknow)

Module: Management

Venue: Indian Institute of Management, Lucknow

Programme Directors: Prof. Sushil Kumar and Prof. Ajay Garg

Programme Schedule: Group I

Week 1: 17th August 2015 (Monday)	
09:00 AM - 09:30 AM	Registration and Facility Overview
09:30 AM - 11:00 AM	Overview of the Programme
11:30 AM - 01:30 PM	Changing Management Paradigms and Leadership Challenges Prof. Sushil Kumar
02:30 PM - 05:45 PM	Understanding and Managing Self Prof. Pankaj Kumar
Day 2 18th August 2015 (Tuesday)	
09:30 AM - 01:00 PM	Creativity, Innovations, and Nudges Prof. Sushil Kumar
02:00 PM - 05:15 PM	Information Technology for Enhancing Managerial Effectiveness Prof. Bharat Bhaskar
Day 3 19th August 2015 (Wednesday)	
09:30 AM - 01:00 PM	Team Building Prof. Pushpendra Priyadarshi
02:30 PM	City Visit
Day 4 20th August 2015 (Thursday)	
09:30 AM - 01:00 PM	Negotiation and Conflict Resolution Skills Prof. Nishant Uppal
02:00 PM - 05:15 PM	Appraising Projects involving Intangibles Prof. Ajay Garg

07:30 PM	Course Dinner
Day 5 21st August 2015 (Friday)	
09:30 AM - 01:00 PM	Building Culture for High Performance Prof. Sushil Kumar
02:00 PM - 05:30 PM	Leadership Prof. Debashish Chateerje
Valediction	

Please note

Daily Yoga sessions for participants	06:15 AM to 07:15 AM
Morning Tea	11:00 AM to 11:30 AM
Lunch	01:00 PM to 02:00 PM
Afternoon Tea	03.30 PM to 03:45 PM

Module: Management

Venue: Indian Institute of Management, Lucknow

Programme Directors: Prof. Sushil Kumar and Prof. Ajay Garg

Programme Schedule: Group II

Week 1: 17th August 2015 (Monday)	
09:00 AM - 09:30 AM	Registration and Facility Overview
09:30 AM - 11:00 PM	Overview of the Programme
11:30 AM - 01:30 PM	Changing Management Paradigms and Leadership Challenges Prof. Sushil Kumar
02:30 PM - 05:45 PM	Information Technology for Enhancing Managerial Effectiveness Prof. Bharat Bhaskar
Day 2 18th August 2015 (Tuesday)	
09:30 AM - 01:00 PM	Team Building Prof. Pushendra Priyadarshi
02:00 PM - 05:15 PM	Understanding and Managing Self Prof. Pankaj Kumar
Day 3 19th August 2015 (Wednesday)	

09:30 AM - 01:00 PM	Creativity, Innovations, and Nudges Prof. Sushil Kumar
02:30 PM	City Visit
Day 4 20th August 2015 (Thursday)	
09:30 AM - 01:00 PM	Building Culture for High Performance Prof. Sushil Kumar
02:00 PM - 05:15 PM	Negotiation and Conflict Resolution Skills Prof. Nishant Uppal
07:30 PM	Course Dinner
Day 5 21st August 2015 (Friday)	
09:30 AM - 01:00 PM	Appraising Projects involving Intangibles Prof. Ajay Garg
02:00 PM - 05:30 PM	Leadership Prof. Debashish Chateerje
	Valediction

Please note

Daily Yoga sessions for participants	06:15 AM to 07:15 AM
Morning Tea	11:00 AM to 11:30 AM
Lunch	01:00 PM to 02:00 PM
Afternoon Tea	03.30 PM to 03:45 PM

Agenda (TERI University)

Module: Forestry Module

Venue: IGNFA, Dehradun

Week 2: Forestry Module (24th August to 29th August, 2015)	
09:00 AM - 09:30 AM	Inaugural session
09:30 AM - 10:30 AM	Issues and Challenges of Forestry Sector in India Dr. S.S.Negi, Director General of Forests and Special Secretary, Ministry of Environment Forests and Climate Change (MOEFCC), Government of India.
10:30 AM - 11:30 AM	Judicial Intervention: Forest and Environment Protection Mr Ritwick Dutta, Advocate, Supreme court of India
11:30 - 12:00 Noon	Tea
12:00 Noon - 1:00 PM	Judicial Intervention: Forest and Environment Protection Mr Ritwick Dutta, Advocate, Supreme court of India
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Balance between Development and Forest Conservation <i>Chair:</i> Dr. S.S.Negi, Director General of Forests and Special Secretary, Ministry of Environment Forests and Climate Change (MOEFCC), Government of India. <i>Panellists</i> Dr. R B S Rawat, Retd. Principal Chief conservator of Forests Uttarakhand and Chairman- Subordinate Service Commission, Uttarakhand Mr Ajay Kumar, Addl. Principal Chief Conservator of Forests, Regional Office, Dehradun Mr H C Chaudhri, Director Forest Conservation Ministry of Environment forests and climate change (Key Presenter) <i>Participants</i>
3:30 PM - 4:00 PM	Tea
4:00 PM - 5.30 PM	Experience sharing: Linkages between Poverty Alleviation and Forest Conservation Mr P G Rahrkar

25/08/2015 (Tuesday) Forestry Module	
09:30 AM - 10:30 AM	Technology Intervention for Productivity Improvement Dr. Piarelal ,Chairman, Pragati Biotechnologies
10:30 AM-11:30 AM	Genetic Improvement of Planting Stock Dr. Piarelal ,Chairman, Pragati Biotechnologies
11:30 - 12:00 noon	Tea
12:00 Noon - 1:00 PM	Potential of Agroforestry in meeting Country's Timber demand Mr H D Kulkarni Retd. Vice President (Plantations),ITC Limited Bhadrachalam
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Tissue culture and Clonal Plants for the improvement of productivity <i>Chair:</i> Dr. Ashwani Kumar, Director General (ICFRE) <i>Panellists</i> Dr. Piarelal Chairman Pragati biotechnologies Dr. Mohit Gera, Professor, IGNFA Mr H D Kulkarni, Retd. Vice President (Plantations),ITC Limited <i>Participant</i>
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	Experience sharing: Tripura Bamboo Mission- A Success story on Bamboo for livelihood Mr V G Jenner
26/08/2015 (Wednesday) Forestry Module	
09:30 AM - 10:30 AM	History of Forest Administration Mr Ashok Sharma, Retd. Principal Chief Conservator of Forests (Research, Education and Training) Maharashtra
10:30 AM-11:30 AM	Role and Responsibilities of Forest officers Mr. Ashok Sharma, Retd. Principal Chief Conservator of Forests (Research, Education and Training) Maharashtra
11:30 - 12:00 noon	Tea
12:00 Noon - 1:00 PM	Implementation of Forest Right Act,2006 A case study on Maharashtra) Dr. J V Sharma, Senior Fellow, The Energy and Resources Institute (TERI), New Delhi

1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	<p>Forest Governance in the Context of FRA,2006</p> <p><i>Chair:</i> Dr.R B S Rawat, Retd. Principal Chief conservator of Forests Uttarakhand and Chairman- Subordinate Service Commission, Uttarakhand</p> <p><i>Panellists</i></p> <p>Dr. J V.Sharma Senior Fellow, The Energy and Resources Institute (TERI), New Delhi</p> <p>Dr. Alok saxena, Additional Director, IGNTA, Dehradun</p> <p>Dr. S Senthil Kumar, Additional Professor, IGNTA, Dehradun</p> <p>Mr Subhash Chandra, Deputy Inspector General, Forests Policy, Ministry of Environment Forests and Climate Change (MOEFCC), Government of India (Key Presenter)</p> <p><i>Participant</i></p>
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	<p>Experience sharing: Geo spatial mapping of natural resources in North Karnataka</p> <p>Mr A.K singh</p>
27/08/2015 (Thursday) Forestry Module	
09:30 AM - 10:30 AM	<p>Watershed Management Approach as Tool for Sustainable development of forests-A case study of Himachal</p> <p>Dr. Ajay Lal, Director, Department of Environment, Science and Technology, Himachal Pradesh</p>
10:30 AM-11:30 AM	<p>Poverty Alleviation and Forest Conservation- A Case study of UP</p> <p>Mr Rajive Kumar, CEO, Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project</p>
11:30 - 12:00 noon	Tea
12:00 Noon - 1:00 PM	<p>Dynamics of Developing Greening Policies for Urban Areas</p> <p>Mr R K Goel, Retd. Director, IGNTA, Dehradun</p>
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	<p>Role of Externally Aided Projects in Forestry Sector in India</p> <p>Mr. A.K. Bansal, Retd. Addl. Director General (Forest Conservation), Ministry of Environment, forest and Climate Change, Government of India</p>
3:30 PM - 4:00 PM	Tea

4:00 PM - 5:30 PM	<p>Unsustainable harvest of forest produce is major driver for forest degradation in India</p> <p><i>Chair:</i> Mr R.K Goel, Retd. Director, IGNFA, Dehradun</p> <p><i>Panellists</i></p> <p>Mr Rajive Kumar, CEO, Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project</p> <p>Dr. Mohit Gera, Professor, IGNFA, Dehradun</p> <p>Dr. J V Sharma, Senior Fellow, The Energy and Resources Institute (TERI), New Delhi (Key Presenter)</p> <p><i>Participant</i></p>
28/08/2015 (Friday) Forestry Module	
09:30 AM - 10:30 AM	<p>Application of GIS and Remote sensing Technology in Forestry</p> <p>Dr. P K Joshi, Professor, Environmental Sciences, Jawahar Lal Nehru University</p>
10:30 AM-11:30 AM	<p>Monitoring of CSS, E-Green Watch and Decision Support system</p> <p>Dr. Anmol Kumar, Director General, Forest Survey of India, Dehradun</p>
11:30 - 12:00 noon	Tea
12:00 noon - 1:00 PM	<p>Future International Arrangement on Forests</p> <p>Dr. Rekha Pai, Inspector General of Forests, Ministry of Environment Forests and Climate Change, Government of India</p>
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	<p>Forest Certification : Issues and Challenges (A case study of UP)</p> <p>Mr S. Upadhaya, Principal Chief Conservator of Forests/ Additional Managing Director, Uttar Pradesh Forest Corporation</p>
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	<p>Forest Certification: Need to assess Implementation of SFM</p> <p><i>Chair:</i> Mr Vinod Kumar, Director, IGNFA, Dehradun</p> <p><i>Panellists</i></p> <p>Dr. Alok Saxena, Additional Director IGNFA, Dehradun</p> <p>Dr. Rekha Pai, Inspector General of Forests, Ministry of Environment Forests and Climate Change, Government of India</p> <p>Dr T R Manoharan, National Representative - India, Forest Stewardship Council, New Delhi (Key Presenter)</p> <p>Mr S. Upadhaya, Principal Chief Conservator of Forests/ Additional Managing Director Uttar Pradesh Forest Corporation</p>
29/08/2015 (Saturday) Forestry Module	
Field visit to Saharanpur for studying various agroforestry systems and exposure to pulp and paper industries	

Module(s): Media management and Environment Management

Venue: IGNFA, Dehradun

Week 3: Media management and Environment management (31st August to 05th September, 2015)	
Media management (31st August to 1st September, 2015)	
31/08/2015 (Monday) Media management	
09.00 AM - 10.00 AM	India's Sustainable development Challenges Dr. Leena Srivastava, Distinguished Fellow, TERI
10:00 AM - 11:30 AM	Media Basics Dr. Annapurna Vancheswaran, Director, Sustainable Development Outreach, TERI
11:30 - 12:00 noon	Tea
12:00 noon to 1:00 PM	Understanding news and interacting with Media Mr K G Suresh Senior Consulting editor, Doordarshan
1:00 PM - 2:00 PM	Lunch
2:00 PM to 3:00 PM	Activity based interaction -1 Mr K G Suresh, Senior Consulting editor, Doordarshan
3:00 PM - 4:15 PM	Crisis Communication Mr S Gopikrishna Warriar, Secretary, Forum of Environmental Journalists of India and Regional Environment Manager, Panos South Asia
4:15 PM - 4:30 PM	Tea
4:30 PM -6:00 PM	Activity based interaction-2 Mr S Gopikrishna Warriar, Secretary, Forum of Environmental Journalists of India and Regional Environment Manager, Panos South Asia
01/09/2015 (Tuesday) Media management	
09:30 AM to 11:00 AM	Understanding Social Media Mr KG Suresh, Senior Consulting editor, Doordarshan
11:00 AM to 11:30 AM	Tea
11:30 AM to 1:00 PM	Media laws and ethics Mr S Gopikrishna Warriar, Secretary, Forum of Environmental Journalists of India and Regional Environment Manager, Panos South Asia
1:00 PM - 2:00 PM	Lunch

2:00 PM to 3:30 PM	Activity based interaction -3 Dr. Annapurna Vancheswaran, Director, Sustainable Development Outreach, TERI Mr S Gopikrishna Warriar, Secretary, Forum of Environmental Journalists of India and Regional Environment Manager, Panos South Asia Mr KG Suresh, Senior Consulting editor, Doordarshan
3:30 PM to 4:00 PM	Tea
4:00 PM to 5:30 PM	Reflections Dr. Annapurna Vancheswaran, Director, Sustainable Development Outreach, TERI Mr S Gopikrishna Warriar, Secretary, Forum of Environmental Journalists of India and Regional Environment Manager, Panos South Asia Mr KG Suresh, Senior Consulting editor, Doordarshan
02/09/2015 (Wednesday) Environment Management	
09:30 AM - 10:30 AM	Forests and Climate Change Dr R K Pachauri, Director-General, TERI
10:30 AM - 11:30 AM	Global Perspective of Climate Change Dr. Mohit Gera, Professor IGNFA, Dehradun
11:30 - 12:00 Noon	Tea
12:00 Noon - 1:00 PM	Politics of Climate Change Dr. Prodipto Ghosh, Advisor, Climate Change and Forests Division, TERI, New Delhi
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	REDD + : An approach for Implementing SFM Dr. Mohit Gera Professor, IGNFA, Dehradun and Dr J.V Sharma, Senior Fellow, TERI, New Delhi
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	Forest Based Carbon Financing: A Myth or reality <i>Chair:</i> Dr. Prodipto Ghosh, Advisor, Climate Change and Forests Division, TERI, New Delhi <i>Panellist:</i> Dr Mohit Gera, Professor, IGNFA, Dehradun Dr J V.Sharma, Senior Fellow TERI, New Delhi Dr T P Singh, ICFRE, Dehradun Key Presenter- Dr Ashish Aggrawal, Fello, TERI, New Delhi <i>Participant</i>
03/09/2015 (Thursday) Environment management	
09:30 AM - 10:30 AM	Forests Vulnerability and Climate change Mr Jagmohan Sharma, CCF, Water Resources Department, Karanataka

10:30 AM - 11:30 AM	Valuation of Forest Resources Prof Kanchan Chopra, Visiting Professor, TERI University
11:30 - 12:00 Noon	Tea
12:00 Noon - 1:00 PM	Case studies on PES and Valuation of Ecosystem Services Dr Mohit Gera, Professor, IGNFA, Dehradun Dr Ruchi Badola, Professor and Scientist, Wildlife Institute of India Dr J V Sharma, Senior Fellow, TERI, New Delhi
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Impact of Coal Mining on Forest Ecosystem Dr. Rajiv Garg, Environment Advisor, Coal India Ltd.
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	Panel discussion on: Payment for ecosystem services <i>Chair:</i> Prof Kanchan Chopra, Visiting Professor, TERI University <i>Panellists:</i> Dr Mohit Gera, Professor, IGNFA, Dehradun Dr Ruchi Badola, Professor and Scientist, Wildlife Institute of India Dr J V Sharma, Senior Fellow, TERI (Key Presenter) Dr. Rajiv Garg, Environment Advisor, Coal India Ltd. <i>Participant</i>
04/09/2015 (Friday) Environment management	
09:30 AM - 10:30 AM	Disaster risk Reduction in India: An Overview Prof V K Sharma, Vice Chairman, Sikkim Disaster Management Authority
10:00 AM - 11:00 AM	Disaster Management Act, 2005 and National Policy for Disaster Management Prof V K Sharma, Vice Chairman, Sikkim Disaster Management Authority
11:30 AM - 12:00 Noon	Tea
12:00 Noon - 1:00 PM	Environment Impact Assessment and re-engineering of Environment clearance Process Dr G V Subramaniam, Advisor (RE), Ministry of Environment & Forests and Climate Change, Government of India
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Infrastructure development and Environment Mr S P Sharma, Chief General Manager, National Highway Authority
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	Experience sharing: Transparency in forest governance Mr. Kalyan Kumar

05/09/2015 (Saturday)

10.00 AM to 12.00 noon

Role of NGT in Forest Conservation
Justice Swatanter Kumar, Chairperson, NGT

Module(s): Environment Management and Wildlife and Biodiversity Conservation

Week 4: Environment Management and Wildlife and Biodiversity Conservation (7th September to 13th September, 2015)

07/09/2015 (Monday) Environment Management

09:30 AM - 10:30 AM

International Law
Mr Shiju M V, Faculty, TERI University

10:30 AM - 11:00 AM

Forest related International Instruments
Mr Shiju M V, Faculty, TERI University

11:30 AM - 12:00 PM

Tea

12:00 Noon - 1:00 PM

International Negotiation
Mr. Ajai Malhotra , Distinguished Fellow, TERI

1:00 PM - 2:00 PM

Lunch

2:15 PM - 3:30 PM

Panel Discussion: Diplomacy is needed to push forestry agenda at international level
Chair: Mr. Ajai Malhotra , Distinguished Fellow, TERI
Panellist:
Dr T P Singh, ICFRE, Dehradun
Dr Alok Saxena, Additional Director, IGNFA
Dr J V Sharma, Senior Fellow, TERI (Key Presenter)
Participant

3:30 PM - 4:00 PM

Tea

4:00 PM - 5:30 PM

Experience sharing: Use of ICT and GIS in forestry sector in Karnataka Forest department
Mr. Saswati Mishra

08/09/2015 (Tuesday) Environment Management

09:30 AM - 10:30 AM

Air Pollution in India and Control Measures
Mr. Sumit Sharma, Fellow, TERI

10:30 AM - 11:30 AM

Urban Waste Management in India: An Overview
Dr Suneel Pandey, Director, Environment Sciences and Management Division , TERI, New Delhi

11:30 AM - 12:00 Noon

Tea

12:00 Noon - 1:00 PM

Biomedical Waste management
Mr. Jairaj, Principal Chief Conservator of Forests, Uttarakhand

1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Green building Mr Apoorv Vij, Programme Manager, GRIHA, TERI
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	Experience Sharing: Ecotourism a step forward for inclusive development Mr Vijay Shelke
09/09/2015 (Wednesday) Wildlife and Biodiversity Conservation	
09:30 AM - 10:30 AM	Wildlife Conservation in India: Profile, Challenges and Prospects Dr V B Mathur, Director, Wildlife Institute of India
10:30 AM - 11:30 AM	Importance of Forensic Sciences in Wildlife Conservation Dr S P Goyal, Emeritus Scientist, WII
11:30 AM - 12:00 PM	Tea
12:00 Noon - 1:00 PM	Illegal Wildlife Trade Sh. Samir Sinha, IFS, Field Director, Corbett National Park
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Critical Wildlife Habitats and Critical Tiger Habitats <i>Chair:</i> Dr V B Mathur, Director, Wildlife Institute of India <i>Panellists</i> Mr Subhash Chandra, DIG, Forest Policy, Ministry of Environment, Forests and Climate Change, Government of India (Key Presenter) Mr Sanjay Kumar, DIG, National Tiger Conservation Authority Sh. Samir Sinha, IFS, Field Director, Corbett National Park Dr Vibhu Prakash, Principal Scientist, Bombay Natural History Society (BNHS) <i>Participant</i>
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	Experience sharing: Ecotourism an opportunity for conservation and livelihood Mr Rajender Kadam
10/09/2015 (Thursday) Wildlife and Biodiversity Conservation	
09:30 AM - 10:30 AM	Ecotourism initiatives in India: A case study on Periyar Dr. Anil Bhardwaj, Scientist and Head, Eco-development Planning and Participatory Management Department, Wildlife Institute of India
10:30 AM - 11:30 AM	Community-based Ecotourism Initiatives in Himalayas Mr Sanjay Sondhi, Founder Trustee, Titli Trust, Dehradun
11:30 - 12:00 Noon	Tea

12:00 Noon - 1:00 PM	Island Biodiversity Dr. Alok Saxena, IFS, Additional Director, IGNFA, Dehradun
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Panel discussion on: Ecotourism initiatives in India <i>Chair:</i> Mr Rajiv Bhartari, Addl. Principal Chief Conservator of Forests, Uttarakhand Mr Sanjay Sondhi, Founder Trustee, Titli Trust, Dehradun Dr. Anil Bhardwaj, Scientist and Head, Eco-development Planning and Participatory Management Department, Wildlife Institute of India Dr. S. Senthil Kumar, Additional Professor, IGNFA, Dehradun Mr. Dhananjay Mohan, Chief Conservator of Forests (Wildlife), Uttarakhand <i>Participant</i>
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	Experience sharing: Controlling encroachment and grazing in Yaval wildlife sanctuary through convergence Mr Samtula Venkat Ramarao
11/09/2015 (Friday) Wildlife and Biodiversity Conservation	
09:30 AM - 10:30 AM	Protected Area Management Effectiveness Dr V B Mathur, Director, Wildlife Institute of India
10:30 AM - 11:30 AM	Recovery Programme for Critically Endangered Pygmy Hog through Conservation Breeding and Reintroduction in Better Managed Grassland Habitat Dr Goutam Narayan, Project Director, Pygmy Hog Conservation Programme, Ecosystems-India
11:35 - 12:00 Noon	Tea
12:00 Noon - 1:00 PM	Vulture Conservation in India Dr Vibhu Prakash, Principal Scientist, Bombay Natural History Society (BNHS)
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Elephant-human conflicts Dr. S S Bist, Former PCCF & HoFF, West Bengal and Former, Director Project Elephant, MoEFCC
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	Convention on Biological Diversity (CBD) Sh. Hem Pande, Additional Secretary, Ministry of Environment, Forests and Climate change, Government of India

12/09/2015 (Saturday) Wildlife and Biodiversity Conservation (Field visit to Dudwa TR)	
8.30 AM	Arrival at Dudwa
10:00 AM -10.05 AM	Introduction to Wildlife Field Trip Dr JV Sharma, Senior Fellow, The Energy and Resources Institute, New Delhi
10:05 AM -10.10 AM	Special Address Shri R. K Goel, former Director, IGNFA
10.10 AM - 11.00 AM	Introduction about Dudwa tiger reserve and Tiger conservation Mr. Sanjay Singh, Field Director, Dudhwa Tiger reserve
11:00 AM - 11.15 PM	Role of Tharu Tribal community in Wildlife protection Mrs Neela Devi, Member of State Wildlife Board, Uttarpradesh
11:15-12:00 Noon	Estimation of Tigers in India Mr Sanjay Kumar, DIG, National Tiger Conservation Authority
12:00 Noon - 1:30 PM	Demonstration on wildlife capture and rescue by WTI team Dr N V K Ashraf, Senior Director, WTI and Team
1:30 PM-1:35 PM	Vote of Thanks Mr Mahavir Kojalagi, Deputy director Dudwa
1:35 PM - 2:30 PM	Lunch
2:30 PM	Field visit to Kishanpur wildlife sanctuary-conservation of swamp deer
13/09/2015 (Sunday) Wildlife and Biodiversity Conservation (Field visit to Dudwa TR)	
8:30 AM	Departure to Katerniaghat Wildlife sanctuary
11:00 AM to 4:00 PM	Rehabilitation of crocodile in Navghat, Katerniaghat WLS and Man-Animal conflict in Katerniaghat WLS Mr Ashish Tiwari Divisional Forest officer Katerniaghat Wildlife Forest Division
4:00 PM	Departure for Dudwa
Week 5: Wildlife and Biodiversity Conservation (14th September to 18th September, 2015)	
14/09/2015 (Monday) Wildlife and Biodiversity Conservation (Field visit to Dudwa TR)	
7:00 AM	Visit to Rhino re-introduction Area (RRA)
1:00 PM	Lunch at Dudwa
15/09/2015 (Tuesday) Wildlife and Biodiversity Conservation	
09:30 AM - 10:30 AM	Role of Zoos in Ex-situ conservation Mr P C Tyagi, Head, Landscape level Planning and Management, WII

10:30 AM - 11:30 AM	Role of Zoos in Ex-situ conservation Mr P C Tyagi, Head, Landscape level Planning and Management, Wildlife Institute of India
11:30 AM - 12:00 Noon	Tea
12:00 Noon - 1:00 PM	Management of the monkey menace Dr Sandeep Rattan, Senior Vet Officer, HP Forest Department
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Human-Animal conflict Mitigation Mr Mayukh Chatterjee, Officer in Charge, Conflict Mitigation Cell, Wildlife Trust of India
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	Man animal Conflict in coastal setting Dr Senthil Kumar, Additional Professor, IGNSA, Dehradun
16/09/2015 (Wednesday) Wildlife and Biodiversity Conservation	
09:30 AM - 10:30 AM	Principles and Protocols for Rescues During Wildlife Emergencies and Rehabilitation of Disadvantaged Wildlife Dr N V K Ashraf, Senior Director, WTI
10:30 AM - 11:30 AM	Conservation of marine ecosystems Dr. Deepak Apte, Chief Operating Officer, BNHS
11:30 AM - 12:00 Noon	Tea
12:00 Noon - 1:00 PM	Challenges of Tiger Conservation in India Dr S P Yadav, IFS, Deputy Inspector General, National Tiger Conservation Authority (NTCA)
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Landscape management Mr D V S Khati, IFS, APCCF and Chief Wildlife Warden, Uttarakhand
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	Experience sharing: Sacred Groves and conservation Mr Madan Kulkarni
17/09/2015 (Thursday) Wildlife and Biodiversity Conservation	
09:30 AM - 10:30 AM	Challenges in the Management of Aquatic Systems Mr B C Choudhary, Senior Advisor Conservation, WTI
10:30 AM - 11:30 AM	Conservation of birds: Issues and challenges Dr Dhanajai Mohan, IFS, Chief conservator of Forests (Wildlife), Uttarakhand
11:30 AM - 12:00 Noon	Tea

12:00 Noon - 1:00 PM	Saving Tigers in Human Dominated Landscapes : The Terai Experience Dr Bivash Pandav, Head of the Department, Department of Endangered Species Management, WII
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Panel discussion on: Human Leopard Conflict <i>Chair:</i> Mr D V S Khati, Chief Wildlife Warden, Uttarakhand Dr. Savita, Director, Forest Research Institute (FRI) and Vice Chancellor FRI university Dr S Senthil Kumar, Additional Professor, IGNFA, Dehradun Dr S P Goyal, Emeritus Scientist, WII Dr Dhananjay Mohan. Chief Conservator of Forests, (Wildlife), Uttarakhand <i>Participant</i>
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	Experience sharing
18/09/2015 (Friday) Wildlife and Biodiversity Conservation	
09:30 AM - 10:30 AM	Techniques and methods of Tiger Census Dr Y V Jhala, Head, Animal Ecology and Conservation Biology, Wildlife Institute of India
10:30 AM - 11:30 AM	Going beyond tigers Dr. Asad Rahmani, Director, BNHS
11:30 AM - 12:00 PM	Tea
12:00 Noon - 1:00 PM	An Exposition of India's Commitments to CITES and the Global Tiger Forum Dr Jagdish Kishwan, Senior Advisor Wildlife Policy, Wildlife Trust of India
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Experience sharing
3:30 PM - 4:00 PM	Tea
4:00 PM - 5:30 PM	Experience sharing

Agenda (Yale School of Forestry and Environmental studies)

Foreign Module: Indian Forest Service Mid-Career Training Program: Fall 2015

20 September — NYC to New Haven, Tyrrell; Kravet

- Arrival & Orientation to New Haven and the United States

21 September — New Haven, CT, Tyrrell; Sirch

- Program Overview and Context
 - » Introduction to Yale, School of Forestry & Environmental Studies, and the Global Institute of Sustainable Forestry
 - » Review of 2-week program, within overall context of managing U.S. forests for multiple values; schedule, travel arrangements, expectations, course materials and workbooks
 - » Overview of U.S. government structure as it applies to land management: federal, state, local; federalist system and states' rights; context for forest management and ownership patterns
- Tour of Yale Peabody Museum of Natural History
 - » The mission of the Peabody Museum is to serve Yale University by advancing our understanding of earth's history through geological, biological, and anthropological research, and by communicating the results of this research to the widest possible audience through publication, exhibition, and educational programs

22 September — New Haven, CT — Murphy-Dunning; Roche

- Urban Forestry in New Haven
 - » Lecture on Urban Forestry and visit to green spaces and tree planting sites across New Haven

- Introduction to U.S. Fish and Wildlife
 - » Talk by Shaun Roche, Visitor Services Manager with U.S. Fish and Wildlife

23 September — New Haven, CT — White Mountains, NH — Oliver

- Global Resources and Sustainable Management (Oliver)
 - » Managing sustainability in an unstable world, managing resources under uncertainty, potential emergence of wood, overview of stand dynamics

24 September — White Mountain National Forest — WMNF Staff

- Federal Lands Management (White Mountain National Forest)
 - » Orientation to the Forest Service and White Mountain National Forest (Weeks Act, multiple uses, engaging the public)
 - » Forest management along a National Scenic Byway
 - » Recreation management/wildlife/bears

25 September — White Mountain National Forest — WMNF Staff

- » Federal Lands Management (White Mountain National Forests)
- » How climate change has impacted local economy, forest ecology
- » How WMNF uses climate change research for management purposes
- » Visit to Dolly Copp Campground and discussion of ecotourism
- » Law Enforcement in the Forest: visit and demonstration with K9

26 September — New York City, NY — NYBG Staff

- New York Botanical Gardens
 - » Tour of the New York Botanical Gardens. The Garden pursues its mission through its role as a museum of living plant collections arranged in gardens and landscapes across its National Historic Landmark site; through its comprehensive education programs in horticulture and plant science; and through the wide-ranging research programs of the International Plant Science Center.

27 September — New York City, NY

- Free Day in NYC

28 September — New York City, NY — Clyne

- Bronx Zoo (Clyne)
 - » Tour the Bronx Zoo with Wildlife Conservation Society staff and learn about global conservation programs, zoo management, and tiger conservation

29 September — Union, CT Ashton

- Ecology and Silviculture of Second Growth Forests (Yale School Forests Field Day)
 - » Understand stand dynamics of second growth mixed forests
 - » Understand how applications of thinning and regeneration methods are made to second growth mixed forests for timber, non-timber and fuelwood for state and private Landowners
 - » Understand how applications of silviculture are used to the create early seral wildlife habitat

September 30 — Union, CT — Ashton; Hull Forest Products

- Management of Private Forestlands
 - » Understand the social values of private landowners of second-growth forests
 - » Understand the management objectives of industrial private timberlands that comprise second-growth forests by visiting an active timber harvest or visit a private sawmill operation

Old Sturbridge Village

Visit to Old Sturbridge Village, one of the country's oldest and largest living history museums, depicting early New England life from 1790-1840 with historians in costume, antique buildings, water-powered mills, and a working farm. The visit will include a 1-hour guided tour.

1 October — Petersham, MA — Barten; Eck

- Managing Forests for Water: Lecture at UMass Amherst
 - » Lecture to cover topics such as connections between water and forests, natural infrastructure, ecosystem services, management examples
- Long Term Ecological Research (Harvard Forest Field Walk)
 - » The Harvard Forest Long Term Ecological Research (LTER) program is part of a national network of long-term ecological research sites. Within this framework we examine ecological dynamics in the New England region resulting from natural disturbances, environmental change, and human impacts. Emphasis is on processes including:
 - » Wind and fire
 - » Past climate change
 - » Land-use and land cover dynamics
 - » Atmospheric pollution, especially nitrogen deposition and ozone projected increases in global temperature
 - » Land management, land policy and conservation

2 October — Petersham, MA — MA DCR

- Managing Forests for Water (Tour of Quabbin)
 - » Tour of Quabbin and field visit with Massachusetts Department of Conservation and Recreation Division of Water Supply Protection staff (assisted by Prof. Barter, Chair of DWSP Scientific and Technical Advisory Committee and Mary Tyrrell, committee member).
 - » After a brief introduction to the water supply system for the metropolitan Boston area, we will visit several sites to examine the short-term and long-term effects of watershed forest management.
- Wrap up and Closing Ceremonies

3 October — Departure to India

Yale School of Forestry and Environmental Studies Foreign Module: Schedule at a Glance

- 20 September — Arrival & Orientation — NYC to New Haven, Tyrrell; Kravet
- 21 September — U.S. Forests and Peabody Museum of Natural History — New Haven, CT, Tyrrell; Sirch
- 22 September — Urban Forestry and U.S. Fish and Wildlife wNew Haven, CT, Tyrrell; Roche
- 23 September — Global Resources wNew Haven, CT, Oliver
- 24 September — Federal Lands Management — White Mountain National Forest — WMNF Staff
- 25 September — Federal Lands Management — White Mountain National Forest, WMNF Staff
- 26 September — NY Botanical Gardens — New York City, NY, NYBG Staff
- 27 September — Day Off — New York City, NY
- 28 September — Bronx Zoo — New York City, NY, Clyne
- 29 September — Yale-Myers Forest: Ecological Silviculture — Union, CT, Ashton
- 30 September — Private Land Management — Union, CT, Ashton; Hull
- 1 October — Harvard Forest — Petersham, MA, Barten; Eck
- 2 October — Quabbin Reservoir — Petersham, MA, MA DCR
- 3 October — Departure

Agenda (University of Eastern Finland, Joensuu)

DAILY PROGRAMME -foreign module in Finland and Russia

Sunday, September 20	
(21.09.2015 at 00:25 AM)	Arrival in Helsinki Bus transport to the Hotel (hotel to be confirmed)
	Autumn time in Finland: Summer is gone and ends with an explosion of color in the forests. This is the season known as 'ruska', when the autumnal reds, browns and yellows are especially beautiful on the fells of Lapland. Nights are growing longer and nature prepares for winter sleep, temperature.
Monday, September 21	
	Breakfast at the hotel
09:00	Welcoming. Briefing to Finland and Finnish culture. Briefing to course content. Adj.Prof. Tahvanainen ¹
10:15	Coffee/Tea
10:30 – 12:30	Forest policy and governance in Finland and in EU, EU forest strategy, forest certification, policy implementation Director General, Dr. Ritva Toivonen and other experts from TAPIO Conference room at the Hotel
12:30 - 13:30	Lunch (self-arranged)
13:30 – 14:30	Finnish bio-economy strategy as an example of holistic policy approach, and examples from other EU countries Adj. Prof.Tahvanainen Director Liisa Saarenmaa, Ministry of Agriculture and Forestry, Finland

14:30 – 16:00	Expert speech of bio-economy and green business in India, IFS MCT officer Panel discussion on Finnish and European Union forest policy, – transfer of expertise Tahvanainen, Saarenmaa, Toivonen, IFS MCT Officers
16:00 – 16:30	Practical information and setting of exercises Tahvanainen
16:30 to 18:00	Short city tour, walking through the city centre Helsinki
19:00 – 21:00	Welcome dinner Prof. Dr Paavo Pelkonen, Adj.Prof., Dr Liisa Tahvanainen,

Tuesday, September 22

	Breakfast at the hotel
09:00 – 10:00	Principles of public administration in Finland. Legislation development related to forests and environment CEO, Dr Pekka Hallberg, Rule of Law Finland, President Emeritus Finnish supreme Administrative Court
10:00 – 11:00	Forest fire management and reflections to situation in India Expert from TAPIO (Finnish Forest Development Centre)
11:00 – 11:30	Coffee/Tea
11:30 – 13:00	Forest fire management and reflections to situation in India (continues) Expert from TAPIO (Finnish Forest Development Centre)
13:00 – 14:00	Lunch (self-arranged)
14:00 – 16:00	City tour in Helsinki by bus (tour starts from Esplanade Park, Fabianinkatu) City guide
16:00 -	Free time, possibility to visit Korkeasaari Zoo or other attractions of Helsinki² Dinner (self-arranged)

Wednesday, September 23

	Breakfast at the hotel
08:15 – 09:00	Bus transportation to Nuuksio National Park³
09:00 – 10:30	National parks and park management Wildlife management and hunting Prof. Pelkonen Expert from Finnish State forests and Park Service (Metsähallitus)

10:30 – 11:00	Coffee/Tea
11:00 – 12:30	Urban forestry, landscape planning, Societal implications related to forests and environment – implications to sustainable forestry Prof., Dr. Liisa Tyrväinen
12:30 – 14:00	Lunch (self-arranged) and time to look at the exhibition and information centre of the National Park
14:00 – 18:00	Excursion and hiking in Nuuksio National Park Prof Pelkonen Adj. Prof Tahvanainen
18:00 – 18:45	Transportation back to Helsinki
19:00 -	Dinner (self-arranged), free time
Thursday, September 24	
	Breakfast at the hotel
	Check out
08:30	Departure for Joensuu by bus Finnish national landscape Tahvanainen, Pelkonen
11:30 – 12:30	Lunch break in the city of Lappeenranta (self-arranged)
12:30 -14:30	Visit to UPM (United Paper Mills), new innovative bioproducts in addition to traditional use UPM experts
14:30	Bus journey continues
18:30	Arrival in Joensuu Check in the hotel
19:30 -	Dinner (self-arranged)
Friday, September 25	
	Breakfast at the hotel
09:00 – 10:30	Finland and the European Union (regions, forests and environment, labour) Dr Tarja Cronberg, Member of the EU Parliament (to be confirmed)
10:30 – 11:00	Coffee/Tea
11:00 – 13:00	IFS MCT participants reports, group reflections and panel discussion
13:00 – 14:00	Lunch break (self-arranged)

14:00-15:00	Bioenergy production and use in Finland and EU, reflections to situation in India Prof. Paavo Pelkonen, Adj. Prof, Dr Liisa Tahvanainen
15:00-16:00	Sustainability dimensions of bioenergy development and Economic valuation of forests Prof. Olli Saastamoinen, UEF
16:00 – 18:00	Visit to Fortum power company CHP plant with integrated production of liquid fuels Fortum initiatives in India Fortum Ltd experts
18:00	Dinner (self-arranged)

Saturday, September 26

	Breakfast at the hotel
08:30 – 10:00	Field excursion by bus to Lieksa Dr Carolina Islas-Sedano, Tahvanainen, Pelkonen
10:00 – 13:00	Visit to the Pielinen Museum - the second largest open-air museum in Finland Modern IT-applications for mobile phone to support tourism Dr Carolina Islas-Sedano
13:00 – 14:30	Lunch in Restaurant Puuspelli in Lieksa (self-arranged)
15:00 – 19:40	Field excursion continues Ruunaa rapids and nature tourism
	Departure for Joensuu by bus
21:00	Arrival at the hotel, dinner (self-arranged)

Sunday, September 27

	Breakfast at the hotel
09:30	Field excursion by bus: Multiple goal private forestry in practice Field excursion to a private forest estate and meeting with the forest owner Combining wood production, rural tourism, ecological and social values, example of voluntary conservation Entrepreneur, Ms Katri Vuorjoki Forestry providing multiple benefits; hunting and farm scale energy production Forest owner, Mr Kinnunen Coffee in the forest campsite Field exercise in groups
13:30 – 14:30	Lunch in a local restaurant (self-arranged)

14:30 – 16:00	Optional programme on request (Koli Spa) (handicraft shop in Liperi village)
17:00	Arrival at the hotel, dinner (self-arranged)
Monday, September 28	
	Breakfast at the hotel
08:30 – 9:00	Departure for Visit to the Arbonaut Ltd office
09:00 – 10:00	Forest information systems, Advanced tools and methodologies for forest management planning Professor Timo Tokola, UEF
10:00 – 10:15	Coffee/Tea
10:00 – 11:30	REDD +, sustainable forest management, ArboLiDAR Professor Tuomo Kauranne, Arbonaut Ltd
11:30 – 11:45	Transportation back to city centre
11:45 – 13:00	Lunch (self-arranged)
13:00 -17:00	Field excursion; forest logging site and energy wood harvesting
17:00	End of the day, dinner (self-arranged)
Tuesday, September 29	
	Breakfast at the hotel
08:30 – 09:30	Silviculture, forest protection issues, and European forests Prof. Dr. Jari Parviainen, Director, Finnish Forest Research Institute, (to be confirmed)
09:30 – 13:00	field visit to Outokumpu nursery
13:00 – 14:3	Lunch (offered by the Regional Council of North Karelia at the Restaurant Teatteriravintola) Dr Hyttinen, Regional Mayor
14:30	Working on assignments Dinner (self-arranged)
Wednesday, September 30	
	Breakfast at the hotel
09:00 – 11:00	Final group assignment presentations Adj. Prof. Dr.Tahvanainen, Prof, Dr. Pelkonen, other teachers, IFS MCT Officers
11:00 – 11:30	Coffee/Tea
11:30 – 12:30	Feedback and summary seminar “Working Café” for new ideas and innovations Dr. Pauliina Korhonen, Adj. Prof. Tahvananen

12:30 – 13:30	Lunch (self-arranged)
13:30 -14:00	“Working Café” results Dr. Pauliina Korhonen
14:00	End of the programme – farewell to Joensuu!
15:00 – 21:00	Check out and departure to Russia by bus, border crossing through Lappeenranta Briefing to Russian Module Russian forestry, society and culture in brief Raivola Larix sibirica site visit (in Russian side) Liisa Tahvanainen, Maxim Trishkin Arriving in St Petersburg, check-in hotel

Thursday, October 1 RUSSIA

	Breakfast at the hotel
09:00 – 9:50	Russian forests, wildlife and forest policy Dr. Anton Doroshin and other experts
9:50 – 10:40	Forest fires and Road construction in Russia Ass. Prof. Dr. Evgeny Kuznetsov
10:40 to 11:10	Coffee Break
11:10 to 12:00	Forest management and silvicultural activities in Russia. Ass. Prof. Dr. Maxim Chubinsky
12:00 to 12:50	Global bioenergy conflict database. Case specific examples on country basis. Senior Researcher Maxim Trishkin
12:50 to 13:30	Panel discussion
13:30	Lunch in hotel
	Free time Dinner (self-arranged) <i>Optional cultural programme, e.g. famous Mariinsky theatre ballet (to be separately self-paid) Needs to be arranged well in advance</i>

Friday, October 2 RUSSIA

	Breakfast at the hotel
8:30	Check out from the hotel and leave to field visits and towards Finland
10:30- 11:30	Forest fires in Russia Field excursion Experts from forest company
11:30 – 11:45	Coffee/tea

11:45-13.30	Raivola Larix sibirica site visit (in Russian side) Liisa Tahvanainen, Maxim Trishkin
13:30	Lunch
	Departure back to Finland by buss
	Check in to the airport hotel
Saturday, October 3 DEPARTURE TO INDIA	
	Breakfast at the hotel
10:30	Check out from the hotel
11:00	Helsinki airport and departure back to India by 13:40 flight

The programme is tentative and possibly will still be modified and detailed; same of the names of the lecturers might still change.

Some optional, separately self-paid, visits can be arranged on request if possible to fit in to the programme e.g. to:

- Small handicraft shop in the Liperi village
- Koli Spa Lotus (<http://www.kolispa.fi/>) can be arranged (separately self paid), just opened spa attached to Koli national park, in remote area with wood pellet heating system
- Tallin, Estonia, one evening visit by ferry from Helsinki
- Ballet Anna Karenina in St Petersburg, Russia
- All optional visits needs to be known well in an advance, two weeks before the foreign module starts, to be able to arrange.

Agenda (TERI University)

Special lectures / Experience Sharing/Group presentation

Venue: IGNFA, Dehradun

Week 8: 5th October 2015 to 9th October, 2015)	
5th October, 2015 (Monday)	
9:30 AM - 11:00 AM	Preparation of Group presentation
11:00 AM - 11:30 AM	Tea
11:30 AM - 1:00 PM	Preparation of Group presentation
1:00 PM to 2:00 PM	Lunch
2:00 PM - 3:30 PM	Preparation of Group presentation
3:30 PM - 3:45 PM	Tea
3:45 PM - 5:15 PM	Preparation of Group presentation
6th October, 2015 (Tuesday)	
9:30 AM - 11:00 AM	Livelihood options for implementing Sustainable forest Management Mr A.K Jain, Adviser, Rural Development and Drinking Water & Sanitation, NITI Aayog
11:00 AM - 11:30 AM	Tea
11:30 AM - 1:00 PM	GIS in Contemporary Forestry Mr. Brijesh Kumar, Chief Conservator of Forests, Karnataka
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Waste management and Energy Dr A.K Agnihotri, Technical advisor for Waste to Energy projects, TERI
3:30 PM - 3:45 PM	Tea

3:45 PM - 5:15 PM	Experience sharing
7th October, 2015 (Wednesday)	
9:30 AM - 11:00 AM	Experience sharing
11:00 AM - 11:30 AM	Tea
11:30 AM - 1:00 PM	Experience sharing
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	<p>US Group Presentation</p> <p><i>The Evaluation Panel for US Presentation</i></p> <p>Ms Mary L. Tyrrell, Executive Director, Global Institute of Sustainable Forestry, Yale School of Forestry & Environmental Studies</p> <p>Dr J V Sharma, Senior Fellow, TERI</p> <p>Dr Alok Saxena, Additional Director, IGNFA, Dehradun</p> <p>Dr. Mohit Gera, Professor, IGNFA, Dehradun</p>
3:30 PM - 3:45 PM	Tea
3:45 PM - 5:15 PM	<p>US Group Presentation</p> <p><i>The Evaluation Panel for US Presentation</i></p> <p>Ms Mary L. Tyrrell, Executive Director, Global Institute of Sustainable Forestry, Yale School of Forestry & Environmental Studies</p> <p>Dr J V Sharma, Senior Fellow, TERI</p> <p>Dr Alok Saxena, Additional Director, IGNFA, Dehradun</p> <p>Dr. Mohit Gera, Professor, IGNFA, Dehradun</p>
8th October, 2015 (Thursday)	
9:30 AM - 11:00 AM	<p>US Group Presentation</p> <p><i>The Evaluation Panel for US Presentation</i></p> <p>Ms Mary L. Tyrrell, Executive Director, Global Institute of Sustainable Forestry, Yale School of Forestry & Environmental Studies</p> <p>Dr J V Sharma, Senior Fellow, TERI</p> <p>Dr Alok Saxena, Additional Director, IGNFA, Dehradun</p> <p>Dr. Mohit Gera, Professor, IGNFA, Dehradun</p>
11:00 AM - 11:30 AM	Tea
11:30 AM - 1:00 PM	<p>US Group Presentation</p> <p><i>The Evaluation Panel for US Presentation</i></p> <p>Ms Mary L. Tyrrell, Executive Director, Global Institute of Sustainable Forestry, Yale School of Forestry & Environmental Studies</p> <p>Dr J V Sharma, Senior Fellow, TERI</p> <p>Dr Alok Saxena, Additional Director, IGNFA, Dehradun</p> <p>Dr. Mohit Gera, Professor, IGNFA, Dehradun</p>

1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Finland Group Presentation <i>The Evaluation Panel for Finland Presentation</i> Dr Liisa Tahvanainen , Director, International Relations, International education and Marketing, UEF Dr Alok Saxena, Additional Director, IGNFA, Dehradun Dr Senthil Kumar, Associate Professor, IGNFA, Dehradun Dr. Mohit Gera, Professor, IGNFA, Dehradun Mr. Suresh Chauhan, Fellow, TERI
3:30 PM - 3:45 PM	Tea
3:45 PM - 5:15 PM	Finland Group Presentation <i>The Evaluation Panel for Finland Presentation</i> Dr Liisa Tahvanainen , Director, International Relations, International education and Marketing, UEF Dr Alok Saxena, Additional Director, IGNFA, Dehradun Dr Senthil Kumar Associate Professor IGNFA, Dehradun Dr. Mohit Gera, Professor IGNFA, Dehradun Mr. Suresh Chauhan, Fellow, TERI
9th October, 2015 (Friday)	
9:30 AM - 11:00 AM	Finland Group Presentation <i>The Evaluation Panel for Finland Presentation</i> Dr Liisa Tahvanainen , Director, International Relations, International education and Marketing, UEF Dr Alok Saxena, Additional Director, IGNFA, Dehradun Dr Senthil Kumar Associate Professor IGNFA, Dehradun Dr. Mohit Gera, Professor, IGNFA, Dehradun Mr. Suresh Chauhan, Fellow, TERI
11:00 AM - 11:30 AM	Tea
11:30 AM - 1:00 PM	Finland Group Presentation <i>The Evaluation Panel for Finland Presentation</i> Dr Liisa Tahvanainen , Director, International Relations, International education and Marketing, UEF Dr Senthil Kumar Associate Professor IGNFA Dr. Mohit Gera, Professor, IGNFA, Dehradun Dr Alok Saxena, Additional Director, IGNFA, Dehradun Mr. Suresh Chauhan, Fellow, TERI
1:00 PM - 2:00 PM	Lunch
2:00 PM - 3:30 PM	Report Submission, Evaluation and Feedback
3:30 PM - 4:00 PM	Tea
4:00 PM	Valedictory

Speakers profile

Dr Anmol Kumar, IFS

Director General Forest Survey of India

Dr. Anmol Kumar, Director General, Forest Survey of India is an Indian Forest Service officer of 1982 batch. He belongs to Maharashtra cadre. He has vast and varied experience of different areas of forestry as well as outside forest department. He has done commendable work during his field posting as Deputy Conservator of Forest, East Melghat Division, Amravati and as Director and Silviculturist, Maharashtra Forest Research Institute, Chandrapur. He addressed the practical field problem of teak seed treatment by developing teak seed treatment machine which was appreciated all over. He also played important role in Union Public Service Commission in introducing single application form for different exam as well as in incorporation of IT in the Commission. While working as Deputy Inspector General of Forests, Wildlife in Ministry of Environment, Forests & Climate Change. He played an important role in implementing Wildlife action plan, research and training in Wildlife, developing new ideas for Wildlife conservation in country etc. He has represented the country internationally on different forum. He has also undergone various trainings within country and outside country.

Presently, working as Director General, Forest Survey of India, Dehradun. He has been responsible for development of web based Decision Support System using remote sensing technology for getting correct information with respect to forest diversion under FCM as well as for monitoring different field activities.

Dr Ashwani Kumar, IFS

Director General, ICFRE and Chancellor of Forest Research Institute Dehradun

Dr Ashwani Kumar, Director General ICFRE is the member of Indian Forest Service, 1980 batch. He has wide variety of experience in various aspects of forestry, particularly in Forest Genetics and Tree Improvement.

He is not only Ph D in this subject but also first D Sc in the history of Indian Forest Service. Before that he did his Post Doctorial Specialist course from Oxford Forestry

Institute (University of Oxford) in 1992. He is also Fellow of the Institute of Applied Sciences, India.

He has served in Uttar Pradesh Forest Department in various capacities like Principal Chief Conservator of forests, Training and Research UP since April, 2012, Dy Conservator of Forests, Tehri, Mussoorie and Meerut Divisions; Conservator of Forests, Eastern Circle Gorakhpur, Meerut Circle, Kanpur Circle as well as Chief Conservator of Forests, Eastern Zone, Allahabad.

Out of his 34 years' experience in field forestry, he has about 12 years of experience in Forestry Research and Education.

He has successfully guided 12 Senior IFS, IAS officers as well as Scientists for PhD in Forestry From FRI University, CSJM University Kanpur as well as Baba Saheb Bhim Rao Ambedkar Central University, Lucknow.

Dr Ashwani Kumar has won many awards and recognition for his work. Recently he has been awarded with Pride of Uttarakhand award 2015 and Uttar Pradesh Ratan Award-2014. He has also received many awards for his research work and contribution in Forestry sector.

During his long and distinguished career Dr Kumar has authored 5 Books and has over 72 scientific publications to his credit.

Mr Ajay Lal, IFS

Director, Department of Environment, Science and Technology, Himachal Pradesh

Mr Ajay Kumar Lal is Director, Department of Environment, Science and Technology, Himachal Pradesh. As a member of Indian Forest Service since 1987, he has served in various capacities holding different assignments both at provincial level and at the national level. Also, served SAARC Forestry Centre, Thimphu where he coordinated and harmonized forestry Policies of South Asian Countries. As FAO Consultant, he was associated in developing Vision Document 2020 on Environment and Forestry Sector for the country. He has taught Environmental Economics and Environmental Law to the post graduate students, IFS probationers students as well as to practicing foresters while serving as Professor in the Indira Gandhi National Forest Academy (IGNFA) and as Dean in FRI Deemed University. He has presented numerous Papers during National /International Conferences and also contributed many Articles for Forestry Journals.

Ambassador Ajai Malhotra, Indian Foreign Services (Retd.)

Distinguished Fellow, The Energy and Resources Institute

Ambassador Ajai Malhotra has an M.A. in Economics from Delhi School of Economics. A member of the Indian Foreign Service since 1977 till retiring as Ambassador of India

to the Russian Federation on November 30, 2013. His first assignment abroad was at the High Commission of India, Nairobi, from 1979-1982, where he handled relations with Kenya and Seychelles and was Focal Point for India to UNEP and UN-HABITAT. From 1982-1985, he was Second/First Secretary (Political) at the Embassy of India, Moscow. From 1985-1989, he was First Secretary (Political) at the Permanent Mission of India to the UN, Geneva, handling ILO, WHO, WIPO and other UN agencies and representing India on the ILO Committee on Freedom of Association. From 1989-1993, he worked at the Ministry of External Affairs, New Delhi, initially as Deputy Secretary looking after Human Rights and International Environmental Issues and then as Director of the UN Division, handling all multilateral work except disarmament. He was Counsellor at the Embassy of India, Moscow, from 1993-1996, returning to the Ministry of External Affairs as Director in 1996. As Joint Secretary in that Ministry from 1997-1999, he guided India's relations with all Central/East European countries, including the Russian Federation. From 1999-2003, he was Minister (Commerce) at the Embassy of India, Washington DC, additionally serving from 2002-2003 as Chairman, International Cotton Advisory Committee, Washington DC.

From 2003-2005, he was India's Ambassador to Romania, concurrently accredited to Albania and Moldova. From 2005-2009, he was Ambassador and Deputy Permanent Representative of India to the UN, New York. He was India's Ambassador to Kuwait from 2009-2011 and to the Russian Federation from 2011-2013.

He has been on the Indian team negotiating issues such as biological diversity, climate change, desertification, education, energy, forestry, health, human rights, human settlements, intellectual property, international law, labour, ozone depletion, sustainable development and trade. He has participated in meetings ranging from the UN Conference on New and Renewable Sources of Energy (Nairobi; 1981) to the Diplomatic Conference on Intellectual Property of Integrated Circuits (Washington DC; 1989); from the WTO Summit (Seattle; 1999) to meetings of the World Health Assembly, WIPO Assembly, International Labour Conference, and UN Human Rights Commission; from UN General Assembly (2005-2009) and ECOSOC sessions to NAM, G77, BRICS and Commonwealth Summits; from UNEP Governing Council sessions to UN Democracy Fund meetings.

His association with environmental issues has included participation in the UNEP Session of a Special Character: Ten Years after Stockholm (Nairobi; 1982); contribution to the 1990 London Amendments to the Montreal Protocol on Substances that Deplete the Ozone Layer, Convention on Biological Diversity, UN Framework Convention on Climate Change, Rio Declaration on Environment and Development, Statement of Principles on Forests, and Agenda 21; participation in the UN Conference on Environment and Development (Rio de Janeiro; 1992). He has also written on issues such as the rights of future generations. In 2004, Ambassador Malhotra was awarded an Honorary Doctorate by Vasile Goldis Western University of Arad, Romania, in recognition of his work in support of environmental causes and development.

Ambassador Malhotra is a Distinguished Fellow with TERI since April 2014. He is also presently Chairman and Managing Trustee of CHIKITSA and SHIKSHA (which provide free primary health care, education and vocational training to the underprivileged) as well as Chairman, Nehru Trust for the Indian Collections at the Victoria & Albert Museum.

Dr. Asad Rehmani

Former Director, Bombay Natural History Society

Asad R. Rahmani is former Director of the Bombay Natural History Society since 1997. He joined BNHS in 1980 and worked as Principal Scientist in various projects. In 1991, he joined the Department of Wildlife Science, Aligarh Muslim University, where he worked for six years. In 1997, he rejoined BNHS as Director and retired in July 2015. He has written more than 170 peer-reviewed research papers in national and international journals, 19 books, and numerous popular articles and book reviews. His principal research interest has been conservation of Indian bustards, storks and cranes, and many other threatened species, as well as grassland habitats. He was the Executive Editor of Journal of the BNHS, and Editor of Hornbill and Mistnet. He has been a Ph.D. guide to 10 students, and Principal Investigator of many prestigious projects of the BNHS, including the Important Bird Areas (IBA) Programme of BirdLife International, RSPB, and BNHS.

He has been a Global Council member of BirdLife International, UK (2006-2013) and Chairman, BirdLife Asia Council (2006-2013) and board member in Salim Ali Centre for Ornithology and Natural History and National Board member for Wildlife Government of India, Ministry of Environment Forests and Climate Change.

Dr Alok Saxena, IFS

Additional Director, IGNTA

Dr Alok Saxena is an Indian Forest Service Officer of 1983 batch belonging to the AGMUT (Arunachal-Goa-Mizoram and Union Territories) cadre. During his 32 years of service he has held many important assignments in his cadre State cadre and Government of India. He worked in Mizoram as Dy. Conservator of Forests from 1985 to 1993, then as Dy. Director in Forest Survey of India till March, 1998. He thereafter worked in Andaman & Nicobar Islands as Chief Wildlife Warden till August 2001 and then worked as Joint Director in Forest Survey of India till August 2006. He was again posted in Andaman & Nicobar Islands where he worked as Conservator of Forests (Wildlife) till July 2008, as Managing Director of Andaman & Nicobar Islands Forest and Plantation Development Corporation Limited till December 2009 and then as Additional Principal Chief Conservator of Forests till December 2011 before proceeding on Central Deputation to Government of India.

He is currently working as Additional Director of Indira Gandhi National Forest Academy, Dehradun. He is M.Sc., Ph.D and MBA. His areas of interest are application

of remote sensing, GIS, and conservation and management of Island Biodiversity. He has published a number of research papers besides presenting papers in a number of national and international conferences.

Dr Ashok Sharma, IFS (Retd.)

Retd. Principal Chief Conservator of Forests (Research, Education and Training) Maharashtra

Dr Ashok Sharma is 1979 batch IFS officer, Mr Sharma is a Post graduate in Botany and holds a post graduate diploma in forestry-AIFC. He holds specialization in designing project for agriculture development, planning and management. In his distinguished career Mr Sharma has held many senior positions of responsibility. Mr Sharma has been instrumental in standardizing planting techniques for Micro-propagation of Bamboo. His work culminated in setting up of "Bamboo Banks" in Maharashtra as well as large scale plantations bamboos on private and public lands. These plantations have managed to achieve substantially higher productivity levels, thus benefitting farmers. He has also served as Joint Secretary, Water Conservation, in the Rural Development & Water Conservation Department, Mumbai Maharashtra, where, apart from Social Forestry, he coordinated watershed / wasteland development programmes under various State / Central schemes. He was instrumental in development of Watershed Prioritization Atlas for the State of Maharashtra, which was launched on the Department's website. He also made an in depth assessment of soil erosion status in the State, which is widely acclaimed. His main interest and key area of expertise though lie in Forest planning management policy and history of forest management. He is a keen student of Forest history and administration.

Dr Ashok Kumar Jain, IFS

Advisor, Rural development, Drinking water and Sanitation, Niti Ayog

Dr. Ashok Kumar Jain belongs to 1983 batch of Indian Forest Service of Telangana Cadre. Currently, he is working as Adviser, Rural Development and Drinking Water & Sanitation, NITI Aayog, Government of India at New Delhi. He has also worked as Adviser, Rural Development, Water Resources and Environment & Forest in erstwhile Planning Commission, Government of India. He has MSc and MPhil degrees in Botany and PG diploma in Forestry. He has done his PhD in Development Studies on "Impact of Watershed Management Approach in the Semi-Arid Areas in relation to Organizational Structure – A case study in Andhra Pradesh". Dr. Jain has a vast experience of more than 30 years in Rural Development, Drinking Water & Sanitation, Irrigation, Forestry, Social Welfare and Housing sectors. He has held several senior positions in Government of Andhra Pradesh viz. Vice Chairman & Housing Commissioner, AP Housing Board;

Special Secretary to Government, Irrigation & Command Area Development Department; Director, Ground Water Department; Vice Chairman & Managing Director, Andhra Pradesh State Irrigation Development Corporation; Special Commissioner, Rural Development Department; Project Director, Drought Prone Area Programme and Conservator of Forests besides several field positions in various sectors of Forestry etc. In his current assignment, he is closely associated with Policy, Planning and implementation of various developmental programmes in the rural areas in India. He is also supporting a Sub-Group of Chief Ministers for preparing a report on Swachh Bharat Abhiyaan.

Dr. Jain has several research papers and articles at his credit. He was very closely associated with the estimation of ground water resources in Andhra Pradesh. He was also nominated as a Member of Central Level Expert Group for Overall Reassessment of Ground Water Resources of the country by Ministry of Water Resources, Government of India while working in Government of Andhra Pradesh. Dr. Ashok Kumar Jain also represents as a Member in several committees of Ministry of Rural Development, Ministry of Drinking Water and Sanitation and Ministry of Water Resources, Government of India. He has visited several countries and presented the papers in various conferences.

Dr Anil K Agnihotri

Technical Advisor for Waste to Energy projects, TERI

Dr Agnihotri is a the technical advisor from Waste to Energy Projects for TERI with an experience of over 33 years. He has done his Ph.D 'On Synthesis of newer 4 (3H) Quinazolinones as potential biological active agents' from University of Lucknow in 1979. He has also received advance training in Microbiology in 1982 from Central Drug Research Institute (CDRI), Lucknow. Dr Agnihotri is an expert in Energy recovery from municipal solid waste and other industrial wastes, Microbial Enhanced Oil Recovery (MEOR), Microbial Induced Corrosion (MIC) by the Sulfate Reducing Bacteria (SRB) in the oil and gas sector. Dr Agnihotri has also been awarded National Petroleum Management Programme Award for Excellence, by Ministry of Petroleum & Natural Gas, Govt. of India in 2003 - 04.

Dr Ashish Aggarwal

Fellow, The Energy and resources Institute

Dr Ashish Aggarwal has a PhD in climate change and development from University of Manchester, UK; an M.Phil in Environment and Development from Cambridge University, and a Post Graduate Diploma in Forestry Management from Indian Institute of Forest Management, Bhopal.

He has around 15 years of experience in research and implementation of various natural resource and development projects related to climate change, watershed, forestry,

water resource and agriculture. He has experience of working with government, Non-Governmental Organizations (NGOs) and research organisations. His interest areas include climate mitigation and adaptation in context of natural resource management, watershed development and community forestry. Some of the projects he has coordinated/worked as a team member include political ecology of carbon forestry in India, scoping study for REDD+ in India, capacity building of government officers for voluntary carbon markets, implementation of Livelihood and Landscape strategy for IUCN, evaluation of Joint Forest Management (JFM) programme for Rajasthan, evaluation of NWDPR watershed programme for Ministry of Rural Development, Government of India, implementation of a DRDA funded watershed project, assessment of biodiversity and livelihood related projects across the globe and study of livelihood coping strategies in arid and semi arid regions of India.

Mr A K Bansal, IFS (Retd.)

Former Additional Director General of Forests, MoEFCC, New Delhi

Mr A.K. Bansal, IFS, a former Orissa Cadre Officer, has worked in the State and in MOEF as Director General, ICFRE; Director, IIFM; Additional Director General, Ministry of Environment and Forestry and Chancellor FRI University.

As Additional DG, MOEF he has been associated with all aspects of conservation of forests, and development of the forest sector in the country including evolution of forest policy and legal framework, and international collaborations. The assignment included the evolution and implementation of national policy relating to forest conservation & management – sustainable forest management, forest certification, climate change adaptation and mitigation - REDD Plus, Forestry and Forest Product research & education, and overseeing the national projects and programs in forest sector including National Afforestation programme, and Green Indian Mission one of the eight mission under the “National Action Plan on Climate Change”. Mr. Bansal worked as Addl. PCCF & Project Director OFSDP & CEO OFSDS from 26th June 2006 to 4th June 2009, and from 5th June 2009 as PCCF-cum-Project Director OFSDP & CEO Orissa Forestry Sector Development Society. During this period, Mr. Bansal oversaw the execution of the Orissa Forestry Sector Development Project with loan assistance from Japan International Cooperation Agency. The project aimed at restoration of degraded forest and improvement in the livelihood for people living in forest fringe areas in 11 Forest Divisions, and 3 Wild Life Divisions in 10 districts of the state with the larger aim of environmental protection and alleviating poverty.

Dr Anil Kumar Bhardwaj, IFS

Scientist and Head, Eco development planning and participatory management, Wildlife Institute of India

He is a member of Indian Forest Service, Kerala cadre 1985 batch. He did M.Sc. and M.Phil in Botany from Punjabi University, Patiala. After joining Forest Service, He got specialized training in the areas of Wildlife Management and Ecodevelopment Planning from Wildlife Institute of India during 1991 and 1994. During 2008, than he completed his Doctorate in the area of Ecodevelopment.

With an experience of over 29 years, Dr Bhardwaj has worked in the capacity of Protected Area (PA) Manager in different PAs of southern Western Ghats of India.

Currently he is working as a Scientist-F and heading the Department of Ecodevelopment Planning and Participatory Management in Wildlife Institute of India (WII), Dehradun. he coordinates and manages many important projects of the institute. Some of the important projects coordinated by Dr Bhardwaj are Mapping of Protected Areas of India; Management Effectiveness Evaluation of Tiger Reserves in India; Assessment of Biosphere Reserves in India; WII-UNDP Project of PA Management for Jaldapara, West Bengal; FORD Foundation assisted project "Building Partnerships for Biodiversity Conservation in Rajaji National Park and Management, Regional Planning for different sites under World Bank GEF supported India Ecodevelopment Project and up-gradation of Protected Area (PA) Data Base of India. I had been actively involved in training programmes of institute for PA/Wildlife Managers and providing technical inputs for management planning of PAs to different states.

He is also the National Training coordinator for "Biodiversity Conservation and Livelihood Improvement Project (BCRLIP)". Dr Bhardwaj has published over 40 research papers, books, scientific reports and articles concerning Wildlife Conservation, Protected Area Management and Community Participation in Protected Areas. He is also a member of IUCN SSC Sustainable Use Specialist Group and WCPA.

Dr. Annupurna Vancheshwaran

Senior Director, Sustainable Development Outreach Division (SDO) at The Energy and Resources Institute (TERI)

Dr Vancheswaran has a Ph.D in Sustainable Development and Corporate Social Responsibility from Indian Institute of Technology, Delhi and a Bachelor of Science from the Delhi University.

She is Director, Sustainable Development Outreach Division (SDO) at The Energy and Resources Institute (TERI). The focus of her work is mainly in the area of global sustainable development and includes interactions with international and Indian organisations, Government Departments, NGOs and the private sector with particular application to the diverse problems of India.

In addition to her responsibility as the Director of SDO, she is the Vice President of TERI, North America to oversee TERI's programmes and activities in the region.

Since 2010, she has been associated with TERI University as an Adjunct Faculty and has been teaching Business Ethics as part of MBA programme of the University.

Given her two decades of experience in sustainable development, she is the Advisory Council Member of Bayer CropScience Child Care Programme, she is also the Advisory Board Member of Sesa Goa Limited, a Vedanta Group Company. She also represented the Ministry of Corporate Affairs, Government of India as Member of the Expert Group in drafting the National Voluntary Guidelines on Responsible Business. At an international level she is associated with **Abengoa, Spain** as the Member of the International Panel of Experts on Sustainable Development.

Mr Apoorv Vij

Programme Manager – Technical, Association for Development and Research of Sustainable Habitats

Apoorv Vij completed his B.Arch from the School of Planning and Architecture, New Delhi and has been working with The Energy and Resources Institute since July 2008. He has spearheaded the development team involved in development of several new rating systems like - SVAGRIHA, targeted at small buildings; GRIHA LD, a green rating system for large developments like neighbourhoods, campuses etc; and GRIHA Prakriti rating system for existing day schools. He has also worked development of the GRIHA smartphone apps for android and iOS phones – India's First Green Building smartphone apps.

He has worked extensively on development and implementation of green buildings and GRIHA rating. He has conducted over 150 training workshops and trained over 5000 professionals across India. He is also actively involved with hand holding for green building projects by conducting various site visits to green building projects.

Mr Ashish Tiwari, IFS

Divisional Forest Officer, Katerniaghat Wildlife Division

Mr Tiwari is an IFS officer of 1995 Batch (Uttarpradesh Cadre). He is presently posted as DFO, Katerniaghat Wildlife division. He is responsible for overall management of the division. He will be speaking Rehabilitation of Crocodile and management of Man-animal Conflict in Katerniaghat Wildlife Division.

Mr Brijesh Kumar, IFS

Chief Conservator of Forests (Information Communication and Technology)

Mr Brijesh Kumar is an IFS officer of 1992 Batch Karnataka cadre. He has done his

masters in Mathematics from Allahbad University and completed MSc in Forestry from ICFRE in 1994. Mr Kumar is well respected among his peers for his Pioneering efforts on in ICT and MIS based management with Karnataka Forest department.

Dr Bivash Pandav

Head of the Department, Department of Endangered Species Management, WII

Dr. Bivash Pandav works at the Department of Endangered Species Management, Wildlife Institute of India (WII), Dehradun. He has been studying tigers and their prey in the Indian Terai since 2003.

After joining the Masters Degree program at the Wildlife Institute of India (WII), Dehradun as a student in 1991, Bivash carried out field-work in the Bhitarkanika mangroves in Odisha. Subsequently he started his career in marine turtle research along the coast of Odisha in 1994 and was involved in long term research and monitoring to gauge the health of the turtle population that nests in the hundreds of thousands each year. Bivash and his colleagues tagged nearly 15,000 adult olive ridleys, which has revealed interesting information about their movements.

Bivash joined WII as faculty in late 1999. Besides regular teaching and training assignments, WII provided Bivash ample opportunity to continue field research. In 2003, along with colleagues, Dr. S.P. Goyal and Abishek Harihar, he began a long-term monitoring programme for tiger and prey populations in Rajaji National Park, Uttarakhand, following voluntary relocation of human settlements.

In 2007 Bivash was deputed to WWF-International. Operating from Kathmandu, Nepal, he coordinated WWF's tiger program across 14 different landscapes in 11 tiger range countries. He travelled extensively across Asia's tiger habitats, witnessed massive destruction of their habitat in countries like Indonesia and Malaysia, and came across a few success stories (like India). Over time, his focus has shifted from research to conservation.

Post his stint with WWF-International, Bivash returned to the Wildlife Institute of India in 2011. He continues to walk in the forests of the foothills of the Himalayas and monitor its elusive animals while thoroughly enjoying life.

Prof B C Choudhary

Senior Advisor Conservation, WTI

Prof B C Choudhary is a well-known wildlife scientist and conservation planner, known for his work on Herpetofauna (amphibians and reptiles) and ecological work on both freshwater and marine habitats and species. He has worked as a wildlife biologist in the state of Andhra Pradesh following which he joined the Wildlife Institute of India at Dehradun in 1984 where he taught and supervised the research of wildlife biologists and managers till his retirement in 2012. He is a member of several IUCN-SSC specialist

groups and various committees of MoEF, Government of India. For his work on science, advocacy and conservation communication leadership, he has been awarded the prestigious Society for Conservation Biology Award. Currently he works as a senior advisor conservation at the Wildlife Trust of India.

Dr Dhananjai Mohan, IFS

Chief Conservator of Forests, Wildlife

Dhananjai Mohan is a member of 1988 batch of Indian Forest Service, Uttarakhand cadre presently serving as Chief Conservator of Forests, Wildlife conservation and intelligence in the office of Chief Wildlife Warden, Uttarakhand. He is a graduate in Electrical Engineering from IIT, Kanpur. He has managed protected areas in undivided UP and written management plans for many of them. He did his Post-Graduate Diploma in Wildlife Management in the year 1992. He was awarded a Ph.D. degree on 'Habitat selection of birds in New Forest, Dehradun, India' by Forest Research Institute University, Dehradun. He served as an Associate Professor in the Indira Gandhi National Forest Academy, Dehradun from 1998 to 2004 dealing with the subject of wildlife conservation. He has undergone short courses on 'Biodiversity Conservation and Management' at the University of Wales, Bangor, UK and Colorado state University, USA. Later he served as Professor in the Wildlife Institute of India, Dehradun from 2006 to 2013 where he led avifaunal research and collaborated with University of Chicago to conduct research on Himalayan bird diversity gradient. He has written a book and contributed a book chapter and has many publications particularly on avifauna his primary interest. Some of these were published in leading journals like *Nature*, *American naturalist*, *Biology letters* and *Journal of Ornithology*.

Dhananjai is a fellow of Leadership for Environment and Development (LEAD), a programme initiated by the Rockefeller foundation. He has been a recipient of Dr Salim Ali fellowship of Ministry of Environment and Forests, Govt. of India in 2005.

Dr. Deepak Apte

Chief Operating Officer, BNHS

Dr. Deepak Apte is at present the Chief Operating Officer at the Bombay Natural History Society. He has a doctoral degree in Marine Ecology. For over 30 years he has been exploring marine life along various parts of the Indian coast. Dr Apte has authored three books, 35 peer reviewed publications in prestigious journals like *Nature*, *Evolution*, *Systematic and Biodiversity* and *JMBA* (UK) and several popular articles. Deepak is the member of Maharashtra State Biodiversity Board Animal Committee and Executive Committee member of CBD NGO Alliance. At present he heads a number of research and conservation programmes in Gujarat, Maharashtra, Lakshadweep and Andaman

and Nicobar. In 2008 Dr. Apte received the prestigious Whitley Conservation Award given by the Shears Foundation for his work on establishing a community managed marine protected area and saving Giant Clams in Lakshadweep. Recently he received the Whitley Continuation Award for the research and conservation of giant clams in Andaman and Nicobar Islands. He is a Fellow of the Smithsonian Environmental Leadership Programme, LEAD-India, International Visitors Programme, USA and Duke University Marine Programme. Dr. Apte is an excellent underwater photographer and Advance Open Water PADI diver with more than 5000 hours of dive logs. He aims to popularize marine biodiversity through research, field expeditions and publication of books.

Mr D V S Khati, IFS

Chief Wildlife Warden, Uttarakhand

Mr Digvijay Singh Khati is the member of Indian Forest Service. Presently he is posted as Chief Wildlife Warden in Uttarakhand at Dehradun. He was earlier posted as Director Corbett Tiger Reserve for more than four years. Besides holding Directorship of Rajaji National Park, he has been a faculty at the Wildlife Institute of India. His areas of specialisation include community participation, conservation education, ecotourism and biodiversity conservation.

Mr. Khati is a trained forester and has undergone training in Wildlife Management at the University of New England, NSW, Australia and University of Bradford, England. Besides this he also worked as a FAO-UNDP Fellow at Phillip Island, Penguin Reserve, Victoria, Royal National Park, NSW in Australia.

As a Consultant for the State Government of Arunachal Pradesh, India, he wrote an Ecotourism plan. This plan was funded by Planning Commission, Government of India.

Mr Khati played a pivotal role in conservation of Biodiversity and Management of Natural Resources in Uttarakhand.

Mr S. Gopikrishna Warriar

Secretary, Forum of Environmental Journalists in India

S. Gopikrishna Warriar is the secretary of the Forum of Environmental Journalists in India (FEJI) and the regional environment manager for Panos South Asia. He works with the media in Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka to enhance journalists' understanding on climate change and biodiversity.

He writes regularly on environment in Frontline magazine, the India Climate Dialogue, the Times of India, the Hindu and the Hindu Business Line newspaper. His pieces have been published in Nature India, First Post and Forbes India. He is a regular blogger on environment – *A touch of green* – which can be reached at <http://gopi-warrior.blogspot.com>.

From 2003 to 2011 he worked with the communication departments of two international agricultural research organisations. He was the media spokesperson for the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) at its headquarters at Hyderabad, India. He was the science writer and head of publications at the Africa Rice Center at Cotonou in Benin in West Africa.

For a decade starting 1992, he was an environment journalist in Chennai – with Down to Earth magazine and the Hindu Business Line newspaper. From 1987 to 1992 he worked in New Delhi with two national-level environment and development NGOs – Action for Food Production (AFPRO) and the Indian National Trust for Art and Cultural Heritage (INTACH).

Dr G V Subrahmanyam

Adviser (RE), Ministry of Environment and Forests, Government of India

Dr Subrahmanyam has been working in the Ministry in various capacities as Environmental Officer, Joint Director, Additional Director and Director. He is actively involved in policy planning and coordination for environmental protection including promotion of research in environment, pollution prevention and control and environment impact assessment of developmental projects.

He has vast experience and subject expertise on Environment Management System Auditing, Cytogenetics, Conservation of Biodiversity, Policy Planning & Coordination for environmental protection.

Dr. Goutam Narayan

Project Director, Pygmy Hog Conservation Programme, EcoSystems-India

Dr. Goutam Narayan is the Project Director of the Pygmy Hog Conservation Programme (PHCP), a collaborative project of Durrell, IUCN/SSC Wild Pigs Specialist Group (WPSG), Forest Department, Govt. of Assam and Ministry of Environment & Forests, Govt. of India, started in 1995. He is a founder member of the EcoSystems-India, a non-profit trust for biodiversity conservation responsible for administering PHCP in Assam as the local partner organisation.

Dr H D Kulkarni

*Retd. Vice President (Plantation), ITC Limited -
Paperboards and Specialty Papers Division, Bhadrachalam Unit*

Dr. H. D. Kulkarni is the former Vice President (Plantation) in ITC Limited, Paperboards and Specialty Papers Division, unit: Bhadrachalam. He holds a Bachelors and Masters

degree from Karnataka University and Ph.D. from Mysore University on Genetics and Tree Improvement aspects of Sandalwood.

He started his career as an Orchidologist in the Karnataka University, Dharwad. He then worked for 9 years in the Sandal Research Centre, Bangalore a unit of FRI Dehra Dun on Sandalwood tree improvement. After which he served 4 useful years as Forest Geneticist in SFRI, Jabalpur, Madhya Pradesh. He planned and executed successfully Tree Improvement programme on 25 important forest tree species of Madhya Pradesh and also established Forest Genetics and Biotechnology Division.

For the last 26 years he is with ITC and heading the Plantation Department of PSPD Unit: Bhadrachalam. He is a pioneer in Clonal technology of pulpwood species in India. He carried out 1.68 lac hectares agro-forestry pulpwood plantations in Andhra Pradesh for continuous and Sustainable supply of Raw Material to the mill of ITC. This activity has lead to an estimated employment generation of 75 million person days, creation of wood asset worth INR 58800 million (5880 cr), reducing 30.74 million tonnes of CO₂ over a period of 25 years.

Dr. Kulkarni initiated Clean Development Mechanism (CDM) activities in ITC Limited and succeeded in registration of 9 projects with UNFCCC. He is spearheading Reforestation CDM Projects which is a large C- Sequestration project registered with UNFCCC. His contributions have made ITC organization – “A carbon positive company”. He is also an active member of FSC India and has taken up Forest Stewardship Council Forest Management (FSC FM) certification for ITC Social and Farm Forestry Plantation. His efforts lead to FSC Chain of Custody and 22000 ha Forest Management certification for ITC PSPD.

He has widely travelled abroad in connection with forestry, climate change, pulp and paper related work. (Italy, UK, France, Switzerland, Germany, Netherlands, Belgium, Denmark, Bhutan, Nepal, Sri Lanka, China, Thailand, Laos, Indonesia, Malaysia, Singapore, Philippines, Australia, New Zealand, Israel, Dubai, Brazil and USA)

He has published over 80 papers in National and International journals and edited a book on Sandalwood.

He has served as Forestry consultant for the World Bank aided forestry projects of Maharashtra State, through Jaakyo Poyry of Sweden and Consultant to Winrock International, USA for ICFRE, Dehra Dun Review. He is a member of National Forest Certification Scheme GOI, MOEF, Research Advisory member for CPPRI, Saharanpur and Institute of Biodiversity, Hyderabad. He is also a Jury Member of World Cultural Council, Mexico for Albert Einstein World Award of Science. He has participated as a member for 12th five year plan for Pulp and Paper Industry and Sustainability group. Recently became a member for Indian Business & Biodiversity Initiative under CII-ITC Centre for IBBI Declaration.

Dr. Hem Pande, IAS

Additional Secretary, MoEF and Chairperson, National Biodiversity Authority

Hailing from Northern Indian Province of Uttarakhand, Mr Hem Pande is a 1982 batch Indian Administrative Services (IAS) officer, presently working as Additional Secretary, Ministry of Environment and Forests (MoEF), Government of India (GoI). Prior to present portfolio, he worked as Joint Secretary in MoEF and handled Biodiversity, Bio-safety, International Cooperation, Global Environment Facility and Animal Welfare issues. As National Focal Point to Convention on Biological Diversity (CBD), Mr Hem Pande was responsible for successful hosting of the Eleventh Conference of Parties to the CBD during October, 2012 at Hyderabad, India.

He has worked with distinction at important and coveted position in the State Government of West Bengal, namely, Under Secretary to the Government, the only post of its kind in the entire State. He also worked as Additional District Magistrate (ADM) in Darjeeling at a time when agitation for a separate State was at its peak and then first Chief Executive Officer of Darjeeling Gorkha Hill Council. He was the Collector and District Magistrate of two districts of West Bengal, namely, Nadia (population 4 million then) and Midnapore (undivided and 8.5 million people then). He served as Director and then as Joint Secretary in the Union Ministry of Mines. He has also served on the Board of BALCO (post disinvestment) and was the Member Secretary of the Varma Committee that took up the restructuring of Geological Survey of India (GSI). As Advisor (Industry) to the Government of West Bengal between 2005 and 2007, he was closely associated with plan and projects of the State including those involving fiscal policies, bilateral/multilateral funding with concerned Ministry in the Union Government.

He is a post-graduate in Botany (M.Sc.) with specialization in ecology and has obtained Master in Business Administration (MBA) from Australia. Prior to joining IAS, he was a member of the Indian Forest Service (1981 batch) from May 1981 to August 1982. He is fond of travelling, trekking and cricket.

Mr H C Chaudhary, IFS

Director, Ministry of Environment, Forest and Climate Change

Mr Harish Chandra Chaudhary is an IFS officer of 1992 Batch (Assam-Meghalaya Cadre). He is presently posted as Director, Ministry of Environment, Forest and Climate Change. Mr Chaudhary is Gold medallist in Bachelor's in Mechanical Engineering from M.B.M Engineering College Jodhpur, Rajasthan. Mr Chaudhary presently deals with matters of 10 Regional Offices of the MoEFCC, and Policy issues related to the Forest (Conservation) Act, 1980. His area of expertise include Forest governance, Wildlife and Habitat improvement, Social Forestry, Formulation of plans and proposals for utilization of funds available under various Central, Sector, Centrally Sponsored and State Plan Schemes.

Dr Jagdish Kishwan, IFS (Retd.)

Chief Policy Advisor, Wildlife Trust of India, Former Additional Director General Wildlife, Government of India, Former Director General, Indian Council of Forestry Research and Education and Chancellor FRI University

Dr Jagdish Kishwan is an internationally acclaimed Climate Change and Forestry Specialist with interest in Wildlife and Agroforestry. He is a distinguished member of the Indian Forest Service, and has held important assignments including that of the Director General, Indian Council of Forestry Research and Education (ICFRE), the prestigious forestry research organization of national and international repute, and the Head of Forestry Force, Jammu and Kashmir State. He retired on 30-09-2012 as Director Wildlife Preservation, Government of India. Presently he is Chief Advisor- Policy with the Wildlife Trust of India, a well-known NGO working for conservation of wild animals and their habitats. He is a post graduate in Mathematics and Forestry, and Ph D in "Mathematical Modeling of Resin Production". He was trained in "Tropical Agroforestry", "Participatory Forestry", and "Forestry Education" in the University of Edinburgh and University of Wolverhampton in the United Kingdom. His main areas of interest are: forests and climate change, policy analysis and formulation, research administration, wildlife and biodiversity management, agroforestry, and writing and editing.

He has vast international experience dealing with forestry and agroforestry issues. He served as National Coordinator of Asia-Pacific Agroforestry Network (APAN) of FAO for 5 years from 1992 to 1997. As Chief of the Editorial Board, he coauthored 'Agroforestry Manual for Asia-pacific Region' brought out jointly by the United Nations Convention to Combat Desertification (UNCCD) and the Government of India in 2005. He has also co-edited 'India's Forests' published by the Ministry of Environment and Forests, Government of India.

He is an acclaimed authority on the subject of Climate Change and Forests with deep knowledge of the likely impacts of global warming on natural resources including forest and biodiversity, and possible ways of mitigating such impacts. He is an acknowledged expert on mitigation potential of forests. Till recently, he served as the member of the Core Negotiating Group of the Government of India, discharging the role of chief Indian negotiator/expert on forestry issues especially "Reducing Emissions from Deforestation and Forest Degradation-plus" in the COP and SBSTA Meetings of UNFCCC. He is the originator of Indian concept of "Compensated Conservation", seeking rewards for the countries implementing strong conservation policies resulting in improvement and enhancement of forest carbon stocks. It is at his initiative that 'Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries' was included in the Bali Action Plan at COP 13 in Bali, which is now popularly known as REDD-plus.

He was awarded 'Uttarakhand Ratna' in 2007 for distinguished service to the people at large. He was also appointed as a Member of the Expert Group of Indian Planning Commission on "Low Carbon Development Strategy for India" from 2009 to 2013. He was also a member of the High Level Working Group constituted by the Government of India (2012-2013) for delineation of the ecosensitive areas in the Western Ghats.

He also chaired the Expert Committee of the Ministry of Environment and Forests to formulate the "Reference Document for REDD+ in India", which has since been submitted in August 2013 to the Government. He has authored/presented more than 2 dozen papers on various aspects of climate change related to forests, forestry, and agroforestry in journals and in national/international workshops, seminars and meetings.

Mr Jai Raj, IFS

Principal Chief Conservator of Forests, Uttarakhand

Mr. Jai Raj is an Indian Forest Service Officer of 1983 batch, Uttarakhand cadre. He is presently working as Principal Chief Conservator of Forests in Uttarakhand and managing the Planning and Finance wing of the department. He has been the State Nodal Officer for preparation of the Uttarakhand State Action Plan on Climate Change. The Action Plan has been finalized and approved by the GoI under his initiative.

Among his past assignments, he has been the Member-Secretary of the State Pollution Control Board and also the Member Secretary of the State Biodiversity Board. He has also worked as the Chief Conservator of Forests in charge of HRD and Personnel Management in the State and in this capacity he played the major role in finalizing the organizational-structure of Forest Department in Uttarakhand after the hill state was carved out of Uttar Pradesh. One of his interesting assignments had been his six years' stint outside the forest department as the CEO of a Trust engaged in providing advance medical health-care. In this capacity, he established and managed a super-specialty Hospital & laid the foundation of a 100 seats' modern Medical College in district Nainital from where many doctors are passing out every year.

Mr. Jai Raj is a prized visiting faculty in Indira Gandhi National Forest Academy, Dehradun where he has been delivering lectures to IFS officers and officers from other All India Services and Central services as well. He has keen interest in Animal-welfare also. He is a Member of the Animal Welfare Board of India, Chennai and Member of the Uttarakhand Animal Welfare Board as well.

Justice Swantantra Kumar

Chairperson, National Green Tribunal

Term of Office in Supreme court of India: 18.12.2009 to 30.12.2012.

- Enrolled as an Advocate with the Delhi Bar Council on 12.7.1971. Practiced in various High Courts and the Supreme Court. Served as an Additional District & Sessions Judge in the Himachal Pradesh High Court from February, 1983 till his resignation in October, 1983, and thereafter resumed practice at New Delhi.
- Appointed as an Additional Judge of the Delhi High Court on 10.11.1994. Transferred to Punjab and Haryana High Court on 30.11.1994.
- Appointed permanent Judge on 30.11.1995. Transferred to Delhi on 4.10.2004.
- Appointed as Chief Justice of Bombay High Court on 31.3.2007.
- Appointed as Judge, Supreme Court of India on 18.12.2009.

Dr J V Sharma, IFS

Senior Fellow, TERI and Faculty, TERI University

A serving Indian Forest Officer, Dr J V Sharma has over 30 years of experience in overall coordination and management of projects and activities in the forestry sector.

Earlier he has also worked as DIG (Research and Training) as link officer along with his main assignment as DIG-Forest Policy in the Ministry of Environment & Forests and dealt with various issues of research and training. He has also worked on various projects related to Economic Valuation of Forest Ecosystem, Change in Forest Governance and enhancing livelihoods of forest communities.

Presently on deputation to TERI, he is involved in guiding the research and development work in the Forestry & Biodiversity Area, which consists of a multidisciplinary professional team of researchers. Also involved in monitoring research, consultancy and extension activities. Other responsibilities include strategic development, project formulation, raising project funding, project implementation and monitoring, institutional and capacity building, networking and negotiating with Government representatives and funding agencies.

Prof Kanchan Chopra

Former Director and Professor, Institute of Economic Growth, Delhi; Visiting Professor, TERI University, New Delhi

Kanchan Chopra, a leading expert in the field of environment and development, received her Ph. D. degree from the Delhi School of Economics, University of Delhi. Till May 2009, she was Director and Professor, Institute of Economic Growth, Delhi where she had been a member of the faculty for close to three decades. Currently, she is Visiting Professor at TERI University, Delhi. She is Fellow of the Beijer Institute of Ecological Economics, Stockholm and of the South Asian Network on Development and Environmental Economics. In 2011, she was elected Fellow of the Third World

Academy of Sciences. She has been Member, Assessment Panel of the Millennium Ecosystem Assessment, She was Founder President, the Indian Society for Ecological Economics from 1998-2000 and was again elected its President during 2010-2012. She was President for the 64th conference of the Indian Society of Agricultural Economics in 2004.

Mr K G Suresh

Consulting Editor with Doordarshan News

K G Suresh is a New Delhi based Senior Journalist, Columnist, Blogger, political commentator, public speaker, media trainer and educator. He is presently working as Senior Consulting Editor with Doordarshan News, India's national news channel.

Prior to his current assignment, Mr Suresh served as Editorial Consultant with Asianet News Network Ltd, one of the oldest and leading television news channels in southern India; Chief Political Correspondent with Press Trust of India, the country's premier news agency; India Bureau Chief of PIO TV, the only web channel dedicated to Non Resident Indians and Group Media Advisor to Dalmia Bharat Enterprises Ltd.

He is also serving in an honorary capacity as Senior Fellow with the prestigious New Delhi-based strategic think tank Vivekananda International Foundation; Adjunct Professor at the Makhanlal Chaturvedi National University of Journalism & Communication, Bhopal, run by the Government of Madhya Pradesh; Visiting Professor with the Delhi Institute of Heritage Research and Management, run by Govt of NCT Delhi; Visiting Professor, Subharti Institute of Journalism and Mass Communication, Swami Vivekanand Subharti University, Meerut, UP; External Member, Board of Studies, Department of Journalism & Mass Communication, Sharda University, Greater Noida, UP; Hony. Director with Global Foundation for Civilizational Harmony (India), a partner of the United Nations Alliance of Civilizations (UNAOC), Director with Indian Media Centre and National Secretary of My Home India, an organization working for people from North East India. Mr Suresh is a Member of the Board of Directors of Hindusthan Samachar, India's oldest multi-lingual news agency. Mr Suresh was designated Commonwealth Youth Ambassador for Peace by Commonwealth Youth Programme, Asia in 2012.

In June 2015, Mr Suresh received the first Khwaja Gareeb Nawaz Global Peace Award 2014, instituted by the Muslim Students Organisation of India, an apex body of Sunni youth and students of India, for his "extraordinary work" for the promotion of love, peace and communal harmony, at the Ajmer Shareef Dargah Campus, Rajasthan.

With a rich professional experience of 27 years, Suresh is the recipient of Prem Bhatia Fellowship for Research in Media by Young Journalists, Action Aid International's Media For Change Fellowship and the first Srikant Joshi Fellowship instituted by the Makhanlal Chaturvedi National University of Journalism and Communication. Mr Suresh was the Editor-in-Chief and Member of the International Jury for the Media Colloquium at the

prestigious Delhi Sustainable Development Summit -2015, attended by journalists from several countries; a member of the Editorial Board of Experts constituted by the National Book Trust to commemorate the 150th birth anniversary of Swami Vivekananda, and the only journalist to represent India at the world media conference in Seoul in March 2015, organized by leading US daily, The Washington Times. He also attended the 16th World Sanskrit Conference at Bangkok, June-July 2015. Suresh was on the international jury for the Plural + International Youth Video Festival 2012, organised by the United Nations Alliance of Civilizations and the International Organisation for Migration. He was the first Indian to be nominated as a jury since the inception of the festival in 2009 and the only South Asian to be part of the 2012 seven member international jury. Suresh was a Member of the Executive Council of the First World Parliament of Spirituality at Hyderabad, India, in 2012.

In November 2011, Mr Suresh along with an expert from WHO, Geneva, conducted a review of the Polio Communication programme for the UNICEF covering Western Uttar Pradesh and West Bengal and submitted a detailed report to all stake holders including the Government of India. He has conducted media training workshops for prestigious institutions such as TERI (The Energy and Resources Institute).

Mr Suresh is considered an authority on right wing politics with his over two decade long experience in covering Bharatiya Janata Party (BJP) and Sangh Parivar organizations. He has also been to trouble spots including Kabul, Kathmandu (in the aftermath of King Birendra's assassination) and Kashmir to cover counter-insurgency operations. He has covered the India visit of Pope John Paul II and US Presidents Bill Clinton and George W. Bush.

His fortnightly political column in The Pioneer, blog 'Indradhanush' on Zeenews.com and column 'Positive Thinking' in Daily News & Analysis, Mumbai, 'Political Play' on merinews.com, India's largest citizen journalism portal are immensely popular with readers across the country.

Mr Suresh is on the Guest Faculty of the Indian Institute of Mass Communications, University of Delhi, Guru Gobind Singh Indraprastha University and Kurukshetra University. Mr Suresh is a regular speaker at colleges, universities and other institutions across the country on Swami Vivekananda and media-related issues.

His analysis and comments on political, developmental and other topical issues are regularly published by national and international agencies, newspapers, magazines, journals and websites such as CNN International (www.cnn.com), AFP, The Times, London, Nikkei Asian Review, Mainichi Shimbun, Monocle, London, The Times of India, The Indian Express, Business Standard, The New Indian Express, Mail Today, The Asian Age, DNA- Daily News & Analysis, Deccan Chronicle, The Pioneer, The Hindu, Outlook, Deccan Herald, First Post.com, Sahara Time, Hindi daily Amar Ujala, Zeenews.com, Rediff.com, The Sunday Indian; telecast by television channels including CNN International, the national broadcaster DD News, Times Now, NDTV 24X7, Headlines Today, ET Now, News X, Aaj Tak, NDTV India, India TV, Zee News, ETV, CNBC Awaz,

Lok Sabha TV, Rajya Sabha TV, Sahara Samay, News 24, News Nation, India News, Focus News, Live India, Manorama News & Asianet News (Malayalam) etc and broadcast by radio stations such as BBC World Hindi Service, DW Deutsche Welle, All India Radio FM Rainbow 102.6 Mhz.

He has travelled across India and the world to cover developments including the Royal Palace Massacre in Nepal, BJP leader L K Advani's controversial Pakistan visit, the tenth anniversary celebrations of freedom in South Africa, the millennium sunrise at Katchal Islands, the reconstruction process in war-torn Afghanistan, the tragic cyclone, earthquake and communal violence in Gujarat, militancy in Jammu and Kashmir and several Lok Sabha and Assembly elections besides a 10 day visit to China in 2014 at the invitation of the Communist Party of China.

Mr Suresh has interviewed several important dignitaries including the then Indian Prime Minister Mr I K Gujral, former Prime Minister H D Deve Gowda, the then Leader of Opposition in Lok Sabha Mr L K Advani, Union Minister for External Affairs Sushma Swaraj, the then Vice-President of India Mr Bhairon Singh Shekhawat, the then Defence Minister and currently Samajwadi Party Chief Mr Mulayam Singh Yadav, the then BJP President Mr Rajnath Singh, and Inventor of AK-47 Assault rifle Mr Mikhail Kalashnikov.

Dr Leena Srivastava

Distinguished fellow, The Energy and Resources Institute

Dr Srivastava is a member of various committees and Boards both at the international and national levels, she serves on the Executive Committee of Sustainable Energy for All (SE4ALL) initiative of the UN Secretary General and the. At a think tank/science level Scientific Advisory Panel of the Climate and Clean Air Coalition (CCAC) to reduce Short-Lived Climate Pollutants (SLCP), UNEP; International Advisory Board of the Helmholtz Programme Technology, Innovation and Society (TIS) and the Holmholtz Alliance Future Infrastructures for Meeting Energy Demands - Towards Sustainability and Social Compatibility Initiative (ENERGY-TRANS); High-Level Advisory Panel for the IEA's forthcoming World Energy Outlook special report on energy and climate change; Research Advisory Committee, WWF-India.

She is an Independent and Non-Executive Director on the Boards of Bharti Infratel Ltd. and Shree Cement Ltd. and Board of Meridian Institute; World Environment Center, Stockholm Resilience Centre. She is a member, Council of Advisors for Fraunhofer India; Sustainable Development Advisory Board, Caterpillar Inc. USA; Senior Advisory Group (SAG), Cement Sustainability Initiative (CSI), WBCSD.

She also serves on the research advisory boards of the Institute of Global Environmental Strategies (IGES), Japan; the Wuppertal Institute for Climate, Germany ; and the Alfred Deakin Research Institute, Australia.

In 2008, the Prime Minister of the Republic of France awarded Dr Srivastava

with the Knight of the Order of Academic Palms (Chevalier dans l'Ordre des Palmes Academiques). She has also received a Certificate of Recognition from the Prime Minister of India, Dr Manmohan Singh, and the IPCC for her contribution to the work of the IPCC. She is the first recipient of Richard von Weizsacker Fellowship of the Robert Bosch Stiftung 2012.

She was a member of the Advisory Group on Energy and Climate of the UN Secretary General; Expert Committee to formulate India's Energy Policy, Planning Commission, Government of India, National Security Advisory Board, Government of India; International Advisory Panel, Global Carbon Capture and Storage (CCS) Institute and International Advisory Committee, The Coca Cola Company; Foresight Advisory Council of Suez Environment, Energy Advisory Board of the World Economic Forum and the Expert Committee on Auto Fuels, Government of India.

She was a Co-ordinating Lead Author for Working Group III of the Third Assessment Report of Intergovernmental Panel on Climate Change (IPCC) and cross-cutting theme Anchor on "Sustainable Development" for the Fourth Assessment Report of the IPCC.

Dr Srivastava is on the Editorial Boards of various international journals dealing with energy and environment issues and has a number of publications to her credit. She has a Masters in Economics from the University of Hyderabad and a Ph.D in Energy Economics from the Indian Institute of Science in Bangalore, India.

Dr Mayukh Chatterjee

Technical Officer, WTI

Mayukh Chatterjee, works as the Technical Officer to the Executive Director and heads the Planning division of the organization. A graduate in Anthropology (B.Sc, M.Sc.), and a doctorate in Animal Behavioural Ecology from National Institute of Advanced Studies, Bangalore, he pursues his dream of one day having a secure future for wildlife and people in the country.

Dr Mohit Gera, IFS

Professor, IGNFA

Dr. Mohit Gera, is an Indian Forest Service Officer of Jammu and Kashmir cadre and belongs to 1987 batch. He has a Master's degree in Economics and Phd in Forestry. He is presently posted as Professor in Indira Gandhi National Forest Academy (IGNFA), Dehradun for the last three years with the responsibility of training of Indian Forest Service officers, both at entry level and the in-service officers. He is also Member Secretary of REDD-plus Cell of IGNFA.

Apart from working in the areas of forest management and training for 12 years, which includes serving as Member Secretary, J&K State Pollution Control Board during 2009-11,

he has 13 years of forestry research experience and has served as Assistant Silviculturist in Tropical Forest Research Institute, Jabalpur during 1993-98; Dy. Conservator of Forests in J&K State Forest Research Institute during 1998-2001; Forest Economist in Forest Research Institute, Dehradun during 2001-2004 and Senior Fellow in The Energy & Resources Institute, New Delhi during 2007-08. While in TERI, Dr. Gera was also given the responsibility of being the first Director of Climate Change Division of TERI. During the last several years, he has worked on Forests and Climate Change issues particularly mitigation role of forests and tree plantations, and Adaptation Strategies for Forest Sector.

Dr. Gera has a wide research experience in the field of Tree Improvement, Forest & Environmental Economics, and Forests and Climate Change. Dr. Gera has closely worked with international research institutions from US, Norway, UBC Canada and New Zealand. He has published extensively and has over 109 research publications to his credit in refereed forestry journals apart from several booklets and popular articles on forestry. He is recipient of ICFRE award for excellence in forestry research and has received several such awards for research papers.

Mr M.V Shiju, LL.M., M.Phil.

Lecturer, TERI University

Shiju M.V. completed his LL.B. and LL.M. from Kerala. He specialized in Maritime Law and Labour Law for his masters. He did his M.Phil. in International Law from Jawaharlal Nehru University, New Delhi and his dissertation is titled as Competition Law in India: A Critical Overview. He started his teaching career at the National University of Juridical Sciences, Kolkata and has taught subjects ranging from Constitutional Law to Labour Law and Competition Law. He is presently working with the Department of Policy Studies, TERI University and is engaged in the teaching of Environmental Law and Policy, Biotechnology Regulation and Management, and Infrastructure Law. He has a number of articles to his credit and is engaged in a number of projects in the field of environmental law and policy. He was one of the Rapporteurs for the High Level Segment of the CoP- 11 (Conference of Parties) of Convention on Biological Diversity held at Hyderabad in October, 2012.

Ms. Neela Devi

Member, Uttar Pradesh Wildlife Board

Ms. Neela Devi is a social worker and a community leader among Tharu Tribals in DTR. She is also a member of Uttarpradesh Wildlife Board.

Dr N V K Ashraf

Chief of conservation WTI

Dr N V K Ashraf is the chief of conservation at WTI. He joined WTI in 2001 as

the Coordinator of the Wild Rescue programme and became the programme's Director in 2005.

Ashraf was instrumental in the creation of IFAW-WTI's wildlife rehabilitation centres, the Centre for Wildlife Rehabilitation & Conservation (CWRC) and Centre for Bear Rehabilitation and Conservation (CBRC), and the three rehabilitation stations (rhino, elephant and buffalo) as well as all the rehabilitation projects associated with them. Currently he holds the charge of several species surveys as well.

Under his leadership and supervision, for the first time in India, hand-raised rhino calves were relocated to Manas National Park from CWRC as part of IFAW-WTI's rhino reintroduction programme. He also oversees rehabilitation of other temporarily as well as permanently displaced animals. These include rescue and rehabilitation of Asiatic black bears in Pakke TR as well as in Manas NP, Hoolock gibbon in Panbari Reserve Forest, re-integration of hand-raised elephants in Manas among others.

Dr Piarelal, PhD

Chairman, Pragati Biotechnologies

Dr. Piarelal is the Chairman of Pragati Biotechnologies. With more than 42 years of experience Dr Piarelal has pioneered and lead Research and Development on productivity improvement in forest plantations and agroforestry. In his capacity as General manager WIMCO limited in 1980's he successfully lead the large scale poplar plantation projects (agroforestry). He then pioneered research for development and deployment of genetically improved, high yielding and disease resistant clones of Eucalyptus leading to yet another success story for large scale Clonal Eucalyptus Plantation with Vice president (plantations) ITC Bhadrachalam. Productivity of these clones proved to be 2 to 3 times higher as compared to normal seedlings, thereby leading to a colossal increase in profitability and large scale adoption of clonal plantations.

For his contribution Dr Piarelal has been conferred with prestigious Indira Gandhi Paryavaran Puruskar on 5th June 2003. He has also been awarded lifetime achievement award for contribution to development of forestry science from Indian Council of Forestry Research & Education and Forest Research Institute, Dehradun on 27th November, 2014.

Dr. Prodipto Ghosh, IAS (Retd.)

Director, Earth Science and Climate Change Division and Distinguished Fellow, TERI

Dr. Prodipto Ghosh is a multidisciplinary professional specializing at the interface of science, economics, and public policy.

Currently, he is Distinguished Fellow and Director at The Energy and Resources Institute (TERI), New Delhi. His concurrent positions include: Member of the Prime

Minister's Council on Climate Change; Member of the Eminent Persons Group on G-20 matters of the Ministry of Finance; Member of the Scientific Advisory Council of the Union Cabinet; and Member, Governing Council of the Indian Council of Social Science Research (ICSSR). He was a member of India's Official Team for international Climate Change Negotiations from 2001 to 2009 and in 2012 (Leader of the Official Team during 2003-2007), and Principal Author of India's National Climate Change Action Plan. He is also Chair of the Task Force on Climate Change of the Federation of Indian Chambers of Commerce and Industry (FICCI).

He is a former Secretary, Ministry of Environment & Forests, Govt. of India (9/2003 to 5/2007), and Additional Secretary and Economic Advisor to the Prime Minister (6/2001 – 6/2003).

He has a Ph.D in Economics and Policy Analysis from the Carnegie-Mellon University, Pittsburgh PA, a B. Tech in Chemical Engineering from the Indian Institute of Technology, New Delhi, and was a member of the Indian Administrative Service (IAS) from 7/1969 to 5/2007.

He is Adjunct Professor at the Carnegie Mellon University and TERI University, and a Visiting Fellow at Smith College, Oxford University.

He works on climate change, sustainable development, and governance issues.

Mr P C Tyagi, IFS

Head, Department of Landscape level planning & Management, Nodal Officer, Captive breeding and Zoo management Cell, Wildlife Institute of India, Dehradun

Mr P.C. Tyagi joined the Indian Forest Service in 1983 and was allotted to Tamil Nadu Cadre. He graduated in Law from Delhi University and then did P.G. Diploma Course in Wildlife Management from Wildlife Institute of India in 1987-88. In his first Field posting worked in Anamalai Tiger Reserve Pollachi & Mudamalai Tiger Reserve, Ooty from 1988 to 1993 and devised strategy for protection, mitigating man-animal conflict in the region and prepared wildlife Management plan for Mudumalai Wildlife Sanctuary. Later joined the Indira Gandhi National Forest Academy as Professor and provided inputs on wildlife management, forest policy and law.

Subsequently worked in the Forest Survey of India, Dehradun and conducted Vegetation mapping and GIS Studies. Later joined Indian Council of Forestry Research and Education, Dehradun as ADG and assisted in developing Natural Forestry Data Base Management System and National Forest Research Extension Programme. On return to Tamilnadu from deputation worked as Director Arignar Anna Zoological Park, Chennai and initiated the Coordinated conservation Breeding Programme for L.T.M., developed Zoo Database Management System, Zoo School Programme and the Master plan for the Zoo. During his subsequent tenure in Department of Environment formulated the

draft Environment Policy, proposal for Lake Conservation Authority and initiated the Integrated Coastal Zone Management Project for Tamil Nadu. After a short stint as territorial conservator in Coimbatore and Faculty, Tamil Nadu Forest Academy and Chief Conservator of Forests, JICA assisted Tamil Nadu Afforestation Project, joined Wildlife Institute of India, Dehradun in 2010.

Since then provided scientific inputs to the Central Zoo Authority in framing of guidelines for conservation breeding, fund raising, transport of animals, volunteers in zoos, captive elephant management and revision of zoo evaluation formats and preparation of Stud Books of Animals. Conducted three years research study for evaluation of housing and enrichment practices in select zoos of the country for 40 species and prepared evaluation report and enrichment plan. Also assisted in preparing stud books for 14 species and work on additional species is continuing. Currently working on Project for Lion Conservation in Gujarat.

Dr. PK Joshi

Professor, Environmental Sciences, Jawaharlal Nehru University

Dr Pawan Kumar Joshi is a Professor, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi. He was earlier Professor and Head of Department of Natural Resources at TERI University, New Delhi. He also spent a decade with Indian Institute of Remote Sensing (IIRS/ISRO), Dehradun.

He is trained originally as an environmentalist, and then as an ecologist, developing skills in Remote Sensing & GIS with a firm scientific research basis.

His research has been recognized by Indian Academy of Sciences (INSA) and National Academy of Sciences India (NASI) through the award of prestigious Young Scientist Medal in 2006 and 2009. Recently (2014), he received National Remote Sensing Award by ISRS/ISRO.

He was visiting faculty to University of Helsinki (Spring 2009), Yale School of Forestry and Environmental Studies (Spring 2011) and University of Freiburg (2011 to 14).

Dr Ruchi Badola

Professor and Scientist, Wildlife Institute of India

She obtained her master's in economics from Garhwal University and joined the Wildlife Institute of India in 1988 as a research scholar. She has done her Ph.D. on "Economic Assessment of People Forest Interactions in the Elephant Forest Corridor Linking the Rajaji and Corbett National Parks". Subsequently, in 1993, She joined the faculty of the Institute in the Department of Ecodevelopment Planning and Participatory Management.

Dr Badola is involved in research projects for generating information on ethnobiology, the socioeconomics of natural ecosystems and the contribution of ecosystems' services

for biodiversity conservation and human well-being. She has also developed and implemented training programmes to build the skills of state forest departments and other stakeholders in the field of planning for community participation in biodiversity conservation, develop sustainable livelihoods options for local communities, resolve conflict over natural resources and perform valuation of ecosystem services.

Specialization

Community/stakeholder participation in biodiversity conservation; ecological economics; valuation of ecosystem services; sustainable livelihood; conflict management; gender issues in conservation.

Mr Rajiv Bhartari, IFS

Additional Principal Chief Conservator of Forests, Uttarakhand

Mr Bharati is an IFS officer of 1986 Batch (Uttarakhand Cadre). He holds MSc Botany Delhi University and PG Diploma in Wildlife Management Wildlife Institute of India. He holds expertise in disciplines of Protected Area Management, Tiger Conservation & Interpretation Ecotourism planning, development and management, Community Based Tourism planning, capacity building and product development and Facilitation skills for participation and application of Appreciative Inquiry. Mr Bhartari has played a pivotal role in promotion of ecotourism in Uttarakhand.

Mr Ritwick Dutta

Advocate, Supreme court of India

Ritwick Dutta is an Advocate in the Supreme Court and specializes in Public Interest Environmental law. He has been assisting environmental NGO's, activists and other concerned groups to take up issues before the Supreme Court, the High Court, the Central Empowered Committee (CEC), The National Environmental Appellate Authority and other forums.

The 40-year-old lawyer has taken the battle for the environment to the courtroom with more than 350 cases. He is the recipient of the Carl Zeiss Roll of Honor, 2005 for wildlife conservation and member of the Environmental Law Alliance Worldwide (E-LAW) : a network of select environmental lawyers across the world. He is the author/ editor of the Environmental Activists Handbook Vol I and II, Supreme Court on Forest Conservation (Universal Law Publishers) among others. Besides litigating he is also involved in environmental law training and capacity building especially for Forest and Wildlife department officers at various Protected Areas across the country.

Dr Rajiv K Garg

Advisor, Environment & Forest) Coal India Limited

Dr. Rajiv Kumar Garg, IFS officer of UP cadre is Advisor with Coal India Limited. He is responsible for reviewing existing policy & regulatory framework affecting coal mining, environment, forest, wildlife and forest dependent communities. He helps Coal India Limited and subsidiary coal companies in addressing issues related to environment, forest, and wildlife.

Rajiv has professional experience of 29+ years spanning over Government, private & public sector and The World Bank. After joining the IFS, he had held various positions in the Government of Uttar Pradesh, both at the District Administration level and State Administration. Rajiv as Senior Vice President with IL&FS Infrastructure Development Corporation (IIDC) took initiatives to develop green infrastructure in forest resource rich State of Uttarakhand. Rajiv is a visiting faculty to India Institute of Coal Management, TERI, and IGNFA where he delivers on challenges of development, inclusive growth and sustainability.

Rajiv received “ICFRE Award for Excellence” in the year 2001-02 for outstanding contribution in the field of Forest Economics & Management for authoring the book “Forest Management Information Systems” and to his credit he has several papers published in international referred journals. He is an alumnus of IIT, Kanpur, FRI, Dehradun, Institute for Development Policy and Management (UK), London Business School (UK), and Maxwell School of Public Policy and Citizenship (USA).

Mr R K Goel, IFS (Retd.)

Former Director of IGNFA Dehradun

Mr R K Goel was formerly Director of the Indira Gandhi Forest Academy. Earlier he worked as Additional Director looking after administrative/training matters. Mr. Goel has extensive experience in urban greening, environmental conservation, watershed development and in the management of tropical rainforests in Andaman & Nicobar Islands. As Conservator of Forests in Delhi from 1996-98, Mr. Goel was instrumental in increasing the forest cover of Delhi from 25 sq km to 108 sq km. Mr. Goel has held several important positions including as Inspector General of Forests in MoEF from Nov 2008 to July 2012 where he looked after the Externally Aided Projects, International Cooperation in Forestry Sector, Policy Issues and Survey & Utilization. Mr. Goel initiated the innovative Anti Cracker campaign and other pollution control drives resulting in substantial reduction in pollution as Member Secretary, Delhi Pollution Control Board & Director (Environment).

Mr Rajive Kumar, IFS

Chief Project Director JICA assisted Uttar Pradesh Participatory Forest management and Poverty Alleviation Project, Lucknow.

Rajive Kumar did his post graduation in Mathematics from University of Allahabad, Post Graduate Diploma in Forestry from Indira Gandhi National Forest Academy, Dehradun and Diploma in Management from All India Management Association, New Delhi. He also did short courses from Reading University, UK, University of Syracuse, USA and University of British Columbia, Canada.

He was selected in Indian Forest Service in 1983 and remained in different important positions in the state of Uttar Pradesh and Government of India. He was first Registrar (Academics) of FRI (Deemed University) and was member of Board of Management and Academic council of this university.

He managed World Bank and Japanese International Cooperation Agency assisted forestry and poverty alleviation projects of UP. He has prepared a number of projects for assistance to forestry sector from national and international donor agencies. He has contributed number of papers and a book on forestry and related issues.

Presently he is Chief Project Director JICA assisted Uttar Pradesh Participatory Forest management and Poverty Alleviation Project, Lucknow.

Dr R K Pachauri

Director General, The Energy and Resources Institute

Rajendra K Pachauri, Ph.D., is an internationally recognized leader on environmental and energy issues and their policy dimensions. As CEO of New Delhi-based TERI (The Energy and Resources Institute), Dr Pachauri oversees a staff of more than 1,200 employees engaged in the research and development of solutions to global problems in the fields of energy, environment and current patterns of development.

Dr Pachauri was the Chairman of the Intergovernmental Panel on Climate Change (IPCC), the world's leading intergovernmental organization for the assessment of climate change. He was elected as the Chairman in 2002 and re-elected by acclamation in 2008, and served till February 2015. He served the organization on a voluntary basis.

Based in Geneva, IPCC was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) in 1988 to provide the world with internationally coordinated scientific assessments of the magnitude, timing, and potential environmental and socio-economic impact of climate change and their potential response strategies. IPCC, along with former U.S. Vice President Al Gore, was awarded the Nobel Peace Prize in 2007.

Dr Pachauri is an economist and industrial engineer by training and has held numerous academic posts in addition to his work with TERI and the IPCC. He has co-authored above 130 papers, a large number of which are peer-reviewed, and written or co-written 27 books, most of them about energy and the environment. Dr Pachauri has held

numerous academic positions and was the Founding Director of the Yale (University) Climate and Energy Institute (YCEI) from July 2009 through June 2012, following which he was appointed Senior Adviser to YCEI till June 2014., He is Honorary Professor of the University of Eastern Finland, and Chancellor of TERI University (April 2012 onwards).

Dr Pachauri has served in numerous international and national committees and Boards. He has received numerous awards and accolades during his distinguished career. He was awarded the 'Knight of the Order of the Star of Italy' by the President of the Republic of Italy in 2014. Order of the "Aztec Eagle" by the President of Mexico in 2012 and Padma Bhushan by the President of India for his contributions to the field of environment in 2001.

Dr Rekha Pai, IFS

Inspector General of Forests, Ministry of Environment, forests and Climate Change and Principal Chief Conservator of Forests Uttarakhand

Dr Rekha Pai is an IFS officer of 1983 Batch (Uttarakhand cadre). She is presently working with MoEF&CC as Inspector General of Forest. In her capacity as IG Dr Pai looks after Forest Policy, Forest Protection, Survey and Utilization and Externally Aided Projects for Government of India. As forestry Divisional Head she also deals with various issues related to Forest Policy and Law. She is presently supervising the implementation of centrally sponsored scheme of Intensification of Forest Management Scheme (IFMS). All matters relating to scientific management of forests, EXIM Policy and Forest Survey of India are also being dealt by Dr Pai. Dr Pai in her extensive career she has served on various important positions, like the Chief Project Director, Watershed Management Directorate, Uttarakhand, Dehradun, Addl. PCCF, Planning and Finance, Forest Department, Govt. of Uttarakhand, Chief Conservator of Forest, Human Resource Development (HRD), Uttarakhand Forest Department, Uttarakhand and Deputy Inspector General of forests (DIG) Ministry of Environment and Forests, Govt. of India New Delhi.

Dr. R B S Rawat, IFS (Retd.)

Retd. Principal Chief Conservator of Forests Uttarakhand and Chairman-Subordinate Service Commission, Uttarakhand

Dr. Raghu Bir Singh Rawat is retired IFS officer from 1978 Batch. Dr Rawat holds expertise in areas of Forestry, Watershed development, Medicinal and aromatic plants, Forest certification. In early eighties, Dr Rawat has successfully conceptualized, formulated and implemented Watershed Management Project in Upper Himalayan region of district Uttarkashi, to ensure soil and water conservation and linked the project with protection of valuable biodiversity with active people's participation to assist rural economy. He has also played instrumental role in socio-economic upliftment of forest

dwellers (*gujars*), in Terai region. Dr Rawat has served in various important positions for Government of India and Uttarakhand. He is the former Principal Chief Conservator of Forests, (HOFF) Uttarakhand. Served as the founder Chief executive officer of National Medicinal plant board, Chief project director of World bank assisted Watershed Management project in Uttarakhand and was the Head, High Value Products & Value Chain and Regional Programme Coordinator, MAPs/NTFPs in ICIMOD. Dr Rawat has authored and edited quite a large number of reports, monographs, proceedings and technical papers on Agro-Forestry, Forest Certification, Forest Economics, Mountain Development, and Disaster Management in the mountain region, Climate Change, Forest Certification, Eco-Tourism, Medicinal and Aromatic Plants, NTFPs, Bio-diversity, Livelihoods etc covering issues, experiences, opportunities and constraints in India.

Mr Sanjay Singh IFS

Director, Dudwa Tiger Reserve

Mr Sanjay Singh is an IFS officer of 1987 Batch (Uttarpradesh Cadre). He is presently posted as the Director of Dudwa Tiger reserve. He Oversees the overall activities of the reserve. He looks after Rescue and rehabilitation of wildlife, Re-introduction of Rhino's, Rehabilitation of Crocodile and Wildlife protection and management based issues in the Reserve.

Dr Samir Sinha, IFS

Field Director, Jim Corbett National Park

Dr. Sinha is an Indian Forest Officer of the 1990 batch. Dr. Sinha is a member of several prestigious committees including the World Commission on Protected Areas (WCPA), IUCN- The World Conservation Union, the CITES Cell, Govt. of India, which provides policy support in CITES implementation to the CITES Management Authority, Govt. of India, .and the Asian Rhino Specialist Group, IUCN. Dr. Sinha has won several awards throughout his career including the Nair Memorial Medal for the Best Management Plan in the XVIIth Diploma Course in Wildlife Management, WII, 1996, Certificate of Commendation by the Govt. of Uttar Pradesh in 1999 for excellence in Wildlife Management, His Excellency the Governor's Trophy for Excellence in Wildlife Management from the Govt. of Uttarakhand in 2003. Moreover, he has over 20 years of hands on experience in the Wildlife Management sector across various levels including management planning, implementation and policy, at the local, national, regional and international levels. Dr. Sinha has served in 11 different Protected Areas so far including six years at the Corbett Tiger Reserve,(1996-2002) and later as Director of Rajaji National Park (2002-04) and Nanda Devi Biosphere Reserve (2004-06). Dr Sinha was the Founder Director, Corbett (Wildlife) Training Centre, Kalagarh, Corbett Tiger Reserve, a Wildlife

Training facility for field level personnel, which is one of the first of its kind in the country.

Dr. Sinhas last Assignment was as Head- TRAFFIC India, WWF-India Secretariat, New Delhi from Dec 2006- Nov 2011 on secondment from Govt. of India where he helped to strengthen the enforcement efforts against illegal wildlife crime such as planning and conducting several capacity building programmes for agencies as diverse as the Judiciary, Police, Customs, Forest, Paramilitary and Army as well as for personnel from across South Asia. He also established South Asia's first Wildlife Sniffer Dog squad by getting dogs trained, providing them to state forest departments and coordinating their deployment, and introduced the use of Deep Search Metal detectors in India in various Tiger landscapes and provided training

Mr Sanjay Sondhi

Founder, Titli Trust Dehradun

Sanjay Sondhi is a Dehradun-based naturalist. An engineering graduate from the Indian Institute of Kanpur (1987), the study of natural history has been his passion for more than three decades. His natural history interests include studying, photographing and writing about nature with a special interest in birds, butterflies, moths and amphibians and reptiles. He has authored numerous books and technical papers on amphibians and reptiles, birds, butterflies and moths and other Indian wildlife.

He spent twenty years in the corporate world and in his last assignment, he was the Managing Director of Honeywell Turbo India based in Pune. In 2005, he received the Premier Achievement Award from the Chairman and CEO of Honeywell, the highest individual award in the organisation, one of eight people to get the award, selected from 120,000 global employees. Sanjay quit his job in mid-2008 to devote himself to natural history and environmental protection.

In 2009, he set up TITLI TRUST (www.titlitrust.com), a nature conservation non-profit organisation which is devoted to studying and protecting India's lesser-known flora and fauna. Titli Trust's primary focus is conservation research and action, conservation education and outreach, community-based nature tourism and resolving human-wildlife conflict. Most of the trust's work is in the Himalayas. Sanjay is a life member of the Bombay Natural History Society, and a member of Kalpavriksh, an environmental NGO, and a Trustee of Nature Science Institute, a nature conservation NGO. He is a Member, IUCN/Species Survival Commission South Asian Invertebrate Specialist Group (2013-2016).

Mr S Upadhyaya IFS

Principal Chief Conservator of Forests and Additional MD Uttarpradesh Forest Cooperation

Mr Upadhyaya is an IFS officer of 1982 Batch (Uttarpradesh Cadre). He has done Masters in Zoology and MBA in Human Resource Development. Mr Upadhyaya is renowned for his pioneering efforts in UP forest department. He has initiated the E-auction process and Forest Certification programme with Uttar Pradesh Forest Department.

Dr S P Yadav, IFS

Deputy Inspector General, National Tiger Conservation Authority (NTCA)

Dr. S P Yadav, an IFS officer is Deputy Inspector General, National Tiger Conservation Authority (NTCA). Dr. S P Yadav, who has played an active role in curbing illegal wildlife trade received the Rajiv Gandhi Wildlife Conservation Award in 2009. He was given the award for cracking a hub of thriving illegal trade in wildlife specimens during his tenure as Divisional Forest Officer in Agra in 2007-08. He was instrumental in major seizure of almost 30,000 wildlife specimens, including a large number of endangered species, in close coordination with the local police and Special Task Force (STF) of Uttar Pradesh for successful prosecution of the offenders.

Dr. S S Bisht, IFS (Retd)

Former PCCF, West Bengal and Former, Director Project Elephant

- Belonged to 1977 batch of the Indian Forest Service in the West Bengal Cadre.
- Retired as the PCCF & Head of Forest Force of West Bengal on 31.3.2013.
- Also served in West Bengal as the PCCF (Wildlife & Biodiversity) & Chief Wildlife Warden; Field Director of Buxa Tiger Reserve; and DFO in-charge of Jaldapara, Mahananda and Senchal Sanctuaries.
- Served under Govt. of India as the IGF & Director, Project Elephant during 2000-05.
- Also served under Government of India during 1986-91 as the Regional Deputy Director, Wildlife Preservation (Northern Region); Assistant Management Authority for CITES in India; Deputy Director (Project Tiger); and Director, National Zoological Park.

Presently

- Member of the IUCN / SSC Asian Elephants Specialist Group (since 1999).
- Chairperson of the Committee for Strengthening of Elephant Reserves and Corridors appointed by the Ministry of Environment & Forests.
- Member of the Consultative Committee to oversee the capturing operation of elephants in Hassan district appointed by the Karnataka Forest Department.

Mr Subhash Chandra, IFS

Deputy Inspector General of Forests, Forest Policy and Forestry International Cooperation

Subhash Chandra is a member of Indian Forest Service of 1988 Batch. He holds M.Sc. degree in Chemistry from Lucknow University, LLB from University of Delhi and PG Diploma on Remote Sensing Application in Forestry from Indian Institute of Remote Sensing in addition to professional forestry diploma equivalent to M.Sc. Forestry from IGNFA. He has experience of working in Arunachal Pradesh Forest Department from 1990-2001 in different forest types ranging from Tropical Moist Evergreen to Temperate-Alpine in forestry activities of Regeneration (ANR), Afforestation, Social Forestry, Working Plans Preparation, Forest Conservation, Forest Based Industries etc. He also has the experience of implementing environmental laws as Member Secretary, Arunachal Pradesh State Pollution Control Board. He has experience of over 10 years of working in Urban Forestry, while working as DCF in the Delhi Forest Department from 2001 to 2005 and Director of Horticulture in New Delhi Municipal Council during 2005 to 2011. He has extensively worked on Urban Green and Tree Management, Forest Conservation, Protection, restoration of degraded lands etc and the management of Delhi Ridge Forest.

In the present assignment of DIG, Forest Policy and Forest International Cooperation Division in the Ministry of Environment and Forests, he is handling the matters related to National Forest Policy, 1988, Indian Forest Act, 1927, issues related to Natural Resources Management, coordinating with concerned Ministries on issues related to Forest Rights Act, 2006 and PESA. He deals with Non Legally Binding Instrument or Forest Instrument and provides inputs on forest related Climate Change, REDD+ implementation and biodiversity issues. He is the National Focal Point for United Nations Forum on Forests and has been involved in shaping of Post 2015 International Arrangement on Forests. As National Focal Point for Committee on Forestry of FAO (COFO), Asia Pacific Forestry Commission, APF Network for Invasive Species, he coordinates with FAO and Asia Pacific Forestry Commission on forestry matters. He is Nodal Officer for the USAID Forest PLUS Programme, a bilateral forestry cooperation between India and USA. He has initiated review of National Forest Policy, 1988 in view of the later developments and emerging challenges before the forestry sector and also working on comprehensive amendment to Indian Forest Act, 1927. He is a member of the Expert Committees on Medicinal Plants and Normally Traded Commodities of National Biodiversity Authority of India.

Dr S Senthil Kumar, IFS

Additional Professor, IGNFA

Dr S Senthil Kumar is an Additional Professor at IGNFA. He has done Dottore Magistrale in Forestry and Environmental Sciences with Honours from University of Padova, Italy, and MSc (Environmental Forestry) from University of Wales, Bangor, UK with Distinction.

He is a Visiting Faculty in Forest Research Institute Dehradun and a member of “Expert Committee on Normally Traded Commodities” of National Biodiversity Authority, India. Mr Kumar has received Lieutenant Governor’s, **Commendation Certificate** for providing alternative livelihood options for rural communities through eco-tourism development and has been responsible for formulation of innovative scheme for **recycling of plastic & Glass wastes** in Andaman and Nicobar Islands which resulted in safe recycling of **1200 tonnes** of plastic wastes. He has published many research papers in international and national journals and is the lead author for Preparation of Climate Change action plan of Andaman and Nicobar Islands and Management plan of Loha Barrack crocodile sanctuary in South Andaman.

Mr Kumar holds expertise in disciplines of Coastal Zone & Marine Protected area Management, Climate Change and Environment Management, Ecotourism, HRD in Forestry and Forest Certification.

Mr Sanjay Kumar, IFS

Deputy Inspector General of Forest, NTCA

Mr Sanjay Kumar is an IFS officer of 1996 Batch (Uttarpradesh Cadre). Mr Kumar has done his B.Sc (Hons) in Zoology from Hansraj College Delhi and PG diploma in Forestry from FRI university in 2000. He is a Wildlife enthusiast and has served in various capacity as DFO’s and Conservator with Uttarpradesh forest Department.

His major areas of specialization and interest are Forest Governance, Corporate Governance, Biodiversity Management, Community Development & Livelihoods

Dr T R Manoharan

Forest Stewardship Council (FSC)’s National Representative for India

Dr T R Manoharan is Forest Stewardship Council (FSC)’s National Representative for India. He holds Masters Degree and M. Phil in Economics from University of Kerala and Ph.D in Forestry Economics from Forest Research Institute University, Dehradun. He has more than two decades of hands on experience in project development, management, research, teaching and policy analysis in the area of economics of forestry, environment conservation, trade and environment, environmental economics and forest certification.

Dr Manoharan is Consultant to the European Forest Institute’s Forest Law Enforcement Governance and Trade (FLEGT) Asia programme supported by EU FLEGT Facility, Life member of Indian Society for Ecological Economics, Visiting faculty of Department of Environmental Planning, School of Planning and Architecture, New Delhi. He was instrumental in establishing Global Forest and Trade Network in India as Head of WWF India’s Forest Conservation Programme. His areas of interest include forest certification, ecological footprint, economic valuation of forest goods and services, trade &

environment, payments for ecosystem services, environment regulation, environmental economics and policy.

Dr. S S Negi, D.Sc, IFS

Director General of Forests and Special secretary to Ministry of Environment Forests and Climate Change (MOEFCC)

Dr S S Negi is an IFS officer Himanchal Pradesh cadre and presently holds the apex position of Director General of Forests and Special secretary to Ministry of Environment Forests and Climate Change (MoEFCC). He holds D.Sc degree in Natural Resource management and have authored more than 130 books on forestry, environment sciences, Himalayan studies and Natural resource management. He has also served as the Director, Environment, Science and Technology for Government of Himachal Pradesh, Member secretary HP state council for Science, Technology and Environment; Member secretary HP state Biodiversity Board; Director Forest Research Institute; Member secretary HP Pollution control Board, state project director, Integrated Watershed Development project; Solan. He has widely travelled in India and abroad and boasts extensive knowledge of Forestry and related sector in India.

Dr Suneel Pandey

Director, Environmental Resources and Management Division TERI

Dr Suneel Pandey, Director, Environmental Resources and Management Division, TERI leads the research teams in conducting assessments across air, waste and resource recovery and recycling in keeping with the basic tenets of sustainable development. He has experience of working on issues related to solid and liquid waste management related studies in industrial, municipal and healthcare environments. In addition to TERI, he has been adjunct faculty and head for centre of regulatory and policy research at TERI University and guiding master and PhD students for their research. Overall he has more than 25 years of research and consultancy experience.

Mr Sumit Sharma

Fellow, The Energy and resources Institute

Sumit Sharma is a Fellow and Area Convenor of the CES (Centre for Environmental Studies) group of TERI. Qualified by the graduate and post-graduate degrees from Delhi College of Engineering and Indian Institute of Technology-Delhi, respectively, he has been working in the group for last 10 years. He has worked on number of projects related to air quality management which involves air quality monitoring, emission inventorisation, air quality modeling (dispersion and receptor), and drafting air quality

management plans. Recently, he has worked on the source apportionment study carried out for the city of Bangalore, in which he was actively involved in carrying out air quality modelling exercises and developing scenarios for air quality improvement. He also has been working on regional scale ozone pollution in which state of the art WRF-CMAQ air quality models are used for prediction of air quality based on future scenarios. During his work, he has been interacting with number of Government departments like CPCB and academic institutes like IIT. He has also been working with ICCT, Shakti Sustainable Energy Foundation and World Bank for conducting workshops for sensitization of various stakeholders groups on the issue of clean fuels and vehicles.

Mr S P Sharma

Chief General Manager, National Highway Authority of India, New Delhi

Mr S. P. Sharma is an officer of 1991 batch of Indian Forest Service. He has served in various capacities in Government of Madhya Pradesh, and Government of India. In his parent cadre, he has worked in all the spheres of Forestry in various capacities. His experience includes working as the Conservator of the Morena and Bhopal Forest Divisions, and as Additional Secretary, Forests, Government of Madhya Pradesh. He has also worked as Director to Government of India, in the Ministry of Agriculture, Department of Animal Husbandry, Dairying & Fisheries. His experience in Infrastructure sector dates back to the year 2002, when he joined the National Highways Authority of India as DGM (Env.). Presently, in his second tenure in NHAI, he is working as GM (Env.) since September 2013.

Mr Sharma won the P. Srinivas memorial prize during the course of his training in the Academy. The Government of M.P. awarded him the State Wildlife award in the year 2008 for effective management of the National Chambal Sanctuary. He is a guest faculty to the Indian Academy for Highway Engineers, and a member of the Environment Committee of the Indian Road Congress.

Dr T P Singh, IFS

Assistant Director General, Biodiversity and Climate Change, ICFRE

Dr. T. P. Singh is an Officer of the Indian Forest Service, 1996 batch and belongs to Haryana Cadre. At present, he is posted as Assistant Director General, Biodiversity and Climate Change at the Indian Council of Forestry Research and Education (ICFRE), Dehradun. He is also the National Project Director of India's Reporting to UNCCD and formulation of National Action Programme to Combat Desertification.

His areas of expertise include carbon markets, economics of climate change, REDD+ and international climate diplomacy. Currently, he is heading projects on REDD+

Piloting in Uttarakhand, ICIMOD's trans-boundary REDD+ Programme in India, Ecosystem Services Improvement Project (ESIP) of GEF-World Bank, and Demand and supply assessment of Medicinal plants in the country. His recently concluded GEF Project on Sustainable Land and Ecosystem Management (SLEM) brought laurels to ICFRE at national and international levels.

Previously, Dr. T.P. Singh worked in various capacities in the Environment and Forest Departments of Government of Haryana. He holds a PhD in Climate Change and Carbon Markets from University of Toronto, Canada and Masters in Remote Sensing in GIS from ITC, Netherlands. He is also an erstwhile Chevening Scholar of the British Council. In addition, he has various national and international publications in the field of climate change, biodiversity, and desertification and land degradation.

Mr Vinod Kumar, IFS

Director, IGNFA

Mr Vinod Kumar is 1978 Batch IFS officer of Odisha cadre. Born on the 4th April 1956, He completed his Graduation with Botany (Honours) and Post Graduation in Botany from Banaras Hindu University. He has also undergone Trainings at the Indian Forest College (now IGNFA) Dehradun, Lal Bahadur Shastri National Academy of Administration (LBSNAA) Mussoorie, Gopabandhu Academy of Administration & Training (GIAT) Bhubaneswar. As an Indian Forest Service officer of Odisha Cadre, he served as the Divisional Forest Officer, Working Plans Officer upto 1985 and in 1991, He served as Conservator of Forests (1996-2002) in Circles of Territorial, Afforestation, Social Forestry and Kenduleaves, and as the Director of Nadankanan Zoological Park. Dr Kumar has Corporate experience of 10 years at the Orissa Forest Development Corporation Ltd in capacity of General Manager, Director (Operation) and Managing Director (2006-2010). He has also served as the Managing Director of Orissa ST & SC Development Finance Co-operative Corporation as well as of Orissa Backward Classes Finance Co-operative Corporation in 2010. Mr Kumar also worked as the Special Secretary to Government of Orissa in Forest & Environment Department (2004-2006) and in the ST & SC Development, Minorities & Backward Classes Welfare Department during 2010.

Mr Kumar has vast Experience of Project formulation, documentation and implementation of EAPs from 1998 to 2014 - SIDA assisted "Capacity Building for Participatory and Sustainable Management of degraded Forests in Orissa", UNDP supported "National Biodiversity Strategy Action Plan " for documentation of 'Orissa Biodiversity Strategy & Action Plan', DFID assisted "Odisha Forestry Sector Support Project", and JICA assisted "Odisha Forestry Sector Development Project" Visit to United Kingdom, South Africa, Turkey and Australia.

Dr Vinod B Mathur, IFS

Director, Wildlife Institute of India

Dr. Vinod B. Mathur joined the Indian Forest Service (IFS) and topped the 1983-85 IFS Professional Course at the Indira Gandhi National Forest Academy (IGNFA), Dehradun and also the XLV Foundational Course at Lal Bahadur Shastri National Academy of Administration (LBSNAA) in 1985. He obtained his doctorate degree in wildlife ecology from the University of Oxford, United Kingdom in 1991. He is the Regional Vice-Chair of the IUCN-World Commission on Protected Areas (WCPA-South Asia) and member of the International Association of Impact Assessment (IAIA). He is currently serving as member of Ministry of Environment & Forests (MoEF), Government of India Committees on World Heritage Conservation, Biosphere Reserves, Management Effectiveness Evaluation and Environment Appraisal of Coal and Thermal Projects. He has now spent over two and half decades in WII, actively contributing to its wide range of training, research and academic programmes in the field of biodiversity conservation and research-policy interface. He has extensive experience as an international trainer and his special interest include biodiversity conservation, environmental and strategic impact assessment, biodiversity informatics and natural heritage conservation.

He has been actively contributing on research-policy interface issues and is the member of United Nations-Intergovernmental Panel on Biodiversity and Ecosystem Services (UN-IPBES) Multidisciplinary Expert Panel (MEP). He has been part of the official Indian delegation for CBD and UNESCO World Heritage Convention Meetings since 2006 and has in-depth knowledge about the working of these conventions.

Dr Vibhu Prakash

Principal Scientist, Bombay Natural History Society (BNHS)

Vibhu Prakash, Ph.D, is a Bombay Natural History Society (BNHS) veteran since 1980. He worked on bird migration till 1984 and has been working on raptors since.

Vibhu studied the raptor community at Keoladeo National Park, Bharatpur, Rajasthan for four years (1984-1988) for his doctoral thesis. He studied the ecology of little known Lesser Spotted Eagle (now known as Indian Spotted Eagle – *Aquila hastate*), for the first time.

In another pioneering project, he established baseline information of the status and distribution of raptors in India from 1990-1993. He coordinated a project about the problem of bird hazard to vultures between 1993-1996. Further, he studied endangered resident forest raptors as well as on raptors that congregate in large numbers like eagles and harriers.

He Identified and documented the crash in Gyps vulture population and was part of the team which established that the drug diclofenac was also responsible for the alarming decline in Gyps vulture populations in India. Later he was part of the team that prepared

the South Asian Vulture Recovery Plan which included establishing and running three vulture conservation breeding programmes in the country.

Vibhu is also a Ph.D research guide for several students working on raptors. He is also a member of Central Zoo Authority of India and a Fellow of Zoological Society of London, U.K.

Dr Vinod Kumar Sharma

Vice Chairman, Sikkim Disaster Management Authority

Sr. Professor, Professor of Disaster Management and Environment, Indian Institute of Public Administration

Dr Sharma has rich experience in Training, research, and documentation of natural disasters. He is setting up a Centre for Climate Change Adaptation in IIPA with the assistance of Ministry of Environment and Forests (Govt. of India). He was nodal officer for Department of Science and Technology to train their scientists from foundation courses to specific need based training to various levels of scientists working in different institutions in India. Presently, He is an convener, Training Advisory Committee of the Institute.

Dr Yadvendradev Jhala

*Scientist and Head Animal Ecology and conservation biology,
Wildlife Institute of India*

A Passionate Wildlife enthusiast since Childhood. Dr Jhala studied zoology for bachelor's and master's degrees from the University of Bombay. He did his Ph.D. research at Virginia Polytechnic Institute and State University, he used optimization to manage the conflicting habitat needs of two endangered species that interacted as prey (blackbuck) and predator (wolf). In 1991, He obtained a postdoctoral fellowship at the Smithsonian Institution and studied reproductive energetics using doubly labelled water. Later, he taught courses in wildlife conservation and management for the Smithsonian Institution in China, Tanzania, Malaysia, India and the U.S.A. He joined the Wildlife Institute of India in 1993 and have since pursued an active research programme on Indian carnivores. He have supervised research projects on the Indian wolf, striped hyaena, golden jackal, Indian fox, Asiatic lion and tiger using VHF, GPS, satellite and recapture telemetry. He supervises the Conservation Genetics Laboratory at WII. He teaches Biometry and Population Ecology for the master's course in wildlife science and Applied Population Ecology for the diploma programme in wildlife management

Specialization

Population ecology; nutritional ecology; quantitative ecology; animal behaviour; conservation biology.

Instructors and Practitioners, Foreign Module (USA)



Mark Ashton is the Morris K. Jessup Professor of Silviculture and Forest Ecology at the School of Forestry and Environmental Studies, Yale University. Prof. Ashton conducts research on the biological and physical processes governing the regeneration of natural forests and on the creation of their agroforestry analogs. The results of his research have been applied to the development and testing of silvicultural techniques for restoration of degraded lands and for the management of natural forests for a variety of timber and nontimber products. Field sites include tropical forests in Sri Lanka and Panama, temperate forests in India and New England, and boreal forests in Saskatchewan, Canada. Prof. Ashton has authored or edited over ten books and monographs and over 100 peer-review papers relating to forest regeneration and natural forest management. He is also the Director of Yale's School Forests.



Paul Barten is a professor at the University of Massachusetts at Amherst in the Dept. of Environmental Conservation. He studies the development and application of GIS-based analytical methods to identify critical areas for conservation, restoration, and storm-water management in large, diverse watersheds. The primary motivation for this work is the protection of drinking water supplies and aquatic ecosystems in collaboration with local communities, water utilities, non-governmental organizations (such as the Trust for Public Land and The Nature Conservancy), and state and federal agencies. His current work includes hydrologic effects of forest management and land use change, application of the Watershed Forest Management Information System, and a book manuscript, *"Forests and People: Seeking an Elusive Yet Essential Balance"*

Colleen Murphy-Dunning is the Director of the Urban Resources Initiative. Colleen received her B.S. in Public and Environmental Affairs from Indiana University, and a M.S.



in Forestry from Humboldt State University. In addition to leading URI, Ms. Murphy-Dunning partners with faculty at the Yale School of Forestry & Environmental Studies to instruct courses in environmental justice, monitoring and evaluation methods, and urban ecology. Prior to coming to Yale University in 1995, she taught agroforestry at the Kenya Forestry College as a Peace Corps volunteer. She also led the New Guinea campaign for Rainforest Action Network from 1988-90.



Chad Dearing Oliver is the Pinchot Professor of Forestry & Environmental Studies and the Director of the Global Institute of Sustainable Forestry. He looks at how forests develop and how silviculture can be applied to ecological systems most effectively. Much of this work was incorporated into his book *Forest Stand Dynamics* (1990, and update edition in 1996, co-author Bruce Larson). During the past decade, he has examined how this understanding can help resolve scientific, technical, and management issues at the landscape and policy levels. He is currently working on landscape approaches to forest management and examines global trade-offs among forest values and among the world's forested ecosystems. Professor Oliver has considerable experience advising public and private forest resource organizations in the United States and abroad. His work has taken him to all parts of the United States and to Canada, Mexico, Turkey, Nepal, Japan, Thailand, Sweden, Finland, Russia, Ecuador, Germany, and France.



Mary Tyrrell is the Executive Director of the Global Institute of Sustainable Forestry at the Yale School of Forestry & Environmental Studies. Her work focuses on land use change, forest fragmentation, sustainable forest management, and U.S. private lands, with a particular emphasis on review and synthesis of scientific research, and making scientific information available to forest managers, policy makers, and conservationists. She is the project manager of the Sustaining Family Forests Initiative, a national coalition focused on research and education about family forest owners in the United States.



Tom Wagner has served on the 800,000 acre White Mountain National Forest since 2002. Prior to his assignment as Forest Supervisor, he was a Deputy Forest Supervisor on the Superior National Forest in Minnesota and also served as a District Ranger on the Bitterroot National Forest in Montana. He has also worked in other field assignments in Idaho, Utah, Nevada and California. He is a graduate of Rutgers University with a Bachelor of Science in Forest Management. He has broad experience in managing public lands to sustain their ecological, social and economic values and in that capacity has work closely with stakeholders in both rural and urban environments.



Emma Kravet is the Program Manager for the Indian Forest Service Mid-Career Training Course. At Yale, she also serves as the Program Manager for the Sustaining Family Forests Initiative of the Global Institute of Sustainable Forestry. She is a 2013 graduate of Tufts University's Urban and Environmental Policy and Planning M.A. program, and has previously worked in youth development and farm-based education.



Christina Riley is the Program Coordinator for the Global Institute of Sustainable Forestry. She received her Bachelor of Arts in Liberal Studies from Western Washington University, and holds a Masters of Arts in Religion degree from Yale Divinity School, as well as a Masters of Philosophy from Drew University. She is currently finishing her Doctorate (ABD) in New Testament/Early Christianity with a concentration in Ecofeminist and Gender Studies from Drew University. Her previous experience includes program assistance and administrative work with the Forum on Religion and Ecology at Yale.

Organising Institutions

Indira Gandhi National Forest Academy



Indira Gandhi National Forest Academy (IGNFA) was constituted in the year 1987 by renaming the erstwhile Indian Forest College, which was originally established in 1938 for training senior forest officers. It is situated in the New Forest campus of Forest Research Institute (FRI) on Chakrata Road (NH-72), five kilometers from Dehradun town.

IGNFA is currently functioning as a Staff College for the officers of the Indian Forest Service (IFS). The primary mandate of the Academy is to impart knowledge and skills to the professional foresters and help them develop competence for managing the country forest and wildlife resources on a sustainable basis. In the Academy training is provided at different levels of seniority in the Indian Forest Service besides training the new entrants to the service. IFS was created in 1966 under the All India Services Act 1951. However, this was only a revival of a well-organized Indian Forest Service which existed during the British Raj from 1865 to 1935.

(Link: <http://www.ignfa.gov.in/>)

TERI University



TERI University provides world-class facilities and resources to its students and faculty so as to usher in innovative and multidisciplinary research. TERI University aspires to contribute globally by serving society as a seat of advanced learning and to promote learning through teaching and through creating and sharing knowledge.

Apart from doctoral research, TERI University provides opportunities for M.Sc. degree programmes in various fields and subjects like Environmental Studies, Natural Resources Management, Environmental & Resource Economics, Water Resources Management, Geoinformatics, Climate Science & Policy and Plant Biotechnology. The University uses modern pedagogical tools for teaching which are richly supplemented by field visits, live industry projects and hands-on applications.

The University provides the very best in equipment and instruments, including state-of-the art computer hardware and software, well-equipped laboratories, video-conferencing facilities and South Asia's most comprehensive library on energy and environment.

(Link: <http://www.teriuniversity.ac.in/>)

TERI (The Energy and Resources Institute)



TERI was formally established in 1974 with the purpose of tackling and dealing with the immense and acute problems that humankind is likely to face. Over the years, the Institute has developed a wider interpretation of this core purpose and its application. TERI has created an environment that is enabling, dynamic and inspiring for the development of solutions to global problems in the fields of energy, environment and current patterns of development, which are largely unsustainable.

The Institute has grown substantially over the years, particularly, since it launched its own research activities and established a base in New Delhi, its registered headquarters. It is the only developing country institution to have established a presence in North America and Europe and on the Asian continent in Japan, Malaysia and the Gulf. The strength of the Institute lies in not only identifying and articulating intellectual challenges straddling a number of disciplines of knowledge but also in mounting research, training and demonstration projects leading to development of specific problem-based advanced technologies that help carry benefits to society at large.

Its symbolic activities are the annual Delhi Sustainable Development Summit (DSDS), a major event focusing on sustainable development, the pursuit of the Millennium Development Goals (MDGs) and assessment of worldwide progress in these critical areas. Establishment of World Sustainable Development Forum (WSDF), which is guided by the patronage of a group of select world leaders. TERI now has staff strength of over 900 employees, drawn from a range of disciplines and experience, supported by infrastructure and facilities, which are world class and distinctively state-of-the-art.

The Forestry and Biodiversity Group, of TERI has major research interest in technical forestry, participatory forestry approaches, governance, rehabilitation of degraded areas, CDM and REDD Plus, monitoring and evaluation, biodiversity studies, livelihoods, medicinal plants, capacity building activities, economic analysis and issues of forest policy and law. The Centre for Global Environmental Research (CGER) has expertise in global environmental issues, climate change negotiations, climate adaptation and mitigation strategies among several other areas. The Plant Biotechnology Group of TERI has cutting edge expertise in the area of biotechnological interventions in forestry and in cell culture techniques.

(Link: <http://www.teriin.org/index.php>)

Indian Institute of Management, Lucknow



Indian Institute of Management (IIM) Lucknow, is one of the premier national level Institutes of Management in India, involved in generating and imparting knowledge in the field of management. Since its inception in 1984, the guiding philosophy of the Institute, throughout, has been creation of knowledge, influencing management practices and integrating globally.

The Institute tries to achieve its objectives through its well designed and globally recognized various Postgraduate Programmes in Management, by undertaking consulting assignments to provide management solutions to corporate and non-corporate sectors, and by conducting Management Development Programmes for enhancing efficiency and effectiveness of working executives/officers. The Institute conducts cutting edge research in various domains of management for generating new knowledge. This truly global management school offers Postgraduate Programme in Management (PGPM), Postgraduate Programme in Agribusiness Management (PGPABM), Part Time Postgraduate Programme in Management for Working Managers (WMP), International Programme in Management for Executives (IPMX), Fellow Programme in Management (FPM). IIM Lucknow stands tall on the foundation of an excellent, committed and deeply knowledgeable faculty, innovative and unique pedagogical tools and an eclectic and diverse student community that has a burning desire to make new paths of its own.

IIM Lucknow, in order to help improve management systems in the corporate, non-corporate and public systems, conducts various Management Development Programmes with objectives to impart latest knowledge, hone management skills, and bring desirable attitudinal changes among the participants so that they can take up leadership roles in their organization – individually as well as collectively.

In last three years, approximately 300 officers of Indian Forest Service (IFS), 207 officers of Indian Economic Service (IES), 150 officers of Indian Statistical Service (ISS) have participated in various Advanced Management Programmes conducted by us. In the same period, we have conducted General Management Programmes for about 146 probationers of Indian Economic Service (IES), Indian Statistical Service (ISS), and Indian Audit and Accounts Service (IAAS). In total, in last three years IIM Lucknow has conducted 325 programmes in which a total of about 6500 participants have participated.

(Link : <http://www.iiml.ac.in/>)

University of Eastern Finland



With approximately 13000 students and 3000 members of staff, the University of Eastern Finland is one of the largest universities in Finland. The university has campuses in Joensuu, Kuopio and Savonlinna. The operations of the new university underscore multidisciplinary.

The four faculties of the University of Eastern Finland, i.e. the Philosophical Faculty, the Faculty of Science and Forestry, the Faculty of Health Sciences, and the Faculty of Social Sciences and Business Studies, offer teaching in more than 100 major subjects.

The School of Forest Sciences, University of Eastern Finland (UEF) conducts leading edge research in forestry and environmental management and policy, and has hosted many centers of excellence in education and research at the national and at the EU level. University of Eastern Finland is holding a UNEP partnership and has carried out a special training course on international environmental diplomacy. The School of Forest Sciences has given a special contribution to the development of international training networks such as the European Silva network and the global IPFE network.

Value of UEF Training

- Connecting people in the strong networks in Finland and in the European union
- Offering contacts to global forest industries
- Providing in depth knowledge and practical solutions for rural development in forested regions
- Strong international perspective – over 50% of graduate students are from outside Finland and are educated jointly in an Erasmus Mundus or CBU consortium
- Offers a truly global view - School doing long-term research throughout the world
- Strong and long experience in high-level training
- Strong connections and ongoing collaborations with forestry and environmental management practitioners; a strong applied focus to teaching and research.
(Link: www.uef.fi, www.uef.fi/metsa)

Yale University School of Forestry & Environmental Studies



YALE UNIVERSITY
School of Forestry
& Environmental Studies
environment.yale.edu

As a Professional School, the Yale School of Forestry & Environmental Studies (F&ES) seeks to provide unequalled education and training in the multiple dimensions of contemporary environmental issues

toward developing solutions for a more sustainable future.

The overriding objective is to provide the next generation of national and international leaders with the knowledge, skills and experience needed to advance environmental decision making, formulate effective solutions to enhance environmental goals, and meet the challenges and opportunities of environmental management, in ways that provide broad, sustainable, resilient and equitable advances for human well-being in a complex and interdependent world.

- In the Doctoral Program F&ES provides opportunities for our students to conduct outstanding scholarly research that generates new knowledge and understanding that

is relevant to major problems and opportunities in environmental management and sustainable development.

- In the Masters Programs F&ES provides broad-based training in environmental science, management and policy tailored to the needs of individual students built on a sound foundation of fundamental concepts and skills.
- In Yale College, F&ES provides opportunities for all undergraduates to develop their understanding of environmental concepts, issues and challenges. In the Environmental Studies major, F&ES offers students a multidisciplinary and interdisciplinary program that will enable them to comprehend the dimensions of environmental issues and how current environmental challenges can best be addressed.

Since its founding in 1900, the Yale School of Forestry & Environmental Studies has been in the forefront of developing a science-based approach to forest management, and in training leaders world-wide. The Global Institute of Sustainable Forestry, established in 2000, continues this tradition. Its mission is to integrate, strengthen and direct the School's forestry research, education and outreach to address the challenges of sustaining forests in the 21st century and a globalized world. The Global Institute fosters leadership through innovative programs, activities, and research to support sustainable forest management both domestically and worldwide.

Value of Yale Training

- Exposure to world-renown experts for high-level discussions
- Over 100 years experience training environmental leaders
- Offers a truly global view – over 30% of students are from outside the United States; faculty and students conduct research all over the globe.
- Faculty strong on thinking “outside the box” and challenging existing views; will provide an outstanding platform for participants to debate key India policy issues
- Strong and long experience in high-level training
- Strong connections and ongoing collaborations with forestry and environmental management practitioners including the US Forest Service; a strong applied focus to teaching and research.

(Link: <http://environment.yale.edu/>)

Wildlife Trust of India



Wildlife Trust of India is a national conservation organisation committed to effective action for the protection of India's natural heritage. WTI's principal objectives include managing or preventing wildlife crises and mitigating threats to individual wild animals, their populations and habitats through holistic strategies and practical interventions. WTI works with the mission to conserve wildlife and its habitat and to work for the welfare of individual wild animals, in partnership with communities and governments. WTI's vision is 'A secure natural heritage of India '. WTI works on species recovery, rescue and rehabilitation, enforcement and law, securing habitats, wild aid and works closely with communities for reducing their dependence on wildlife and securing wildlife habitat.

(Link: <http://wti.org.in/oldsite/>)

General Information about Host Cities

Dehradun, Uttarakhand, India

About the City: Dehradun is the capital city of the state of Uttarakhand in the northern part of India. Dehradun is located in the Doon Valley on the foothills of the Himalayas nestled between two of India's mightiest rivers - the Ganges on the east and the Yamuna on the west. The city is famous for its picturesque landscape and pleasant climate and provides a gateway to the surrounding region. Dehradun is also renowned for its natural resources, publishing services and particularly for its prestigious educational institutions. It hosts some of India's best schools and institutions of national importance such as the IMA, FRI, IIRS, WII, ONGC, IIP, DRDO.

Weather: The climate of Dehradun is generally temperate, although it varies from tropical; from hot in summers to severely cold, depending upon the season and the altitude of the specific location. The nearby hilly regions often get snowfall during winter, but although the temperature in Dehradun can reach below freezing during severe cold waves this is not a frequent occurrence.

The average temperature during July-August is as follows:

Month	June	July	August
Average high °C	34.4	30.5	29.7
Average low °C	22.4	22.6	22.3
Precipitation mm	230.2	630.7	627.4
% humidity	65	86	89

For further information visit: <http://dehradun.nic.in/>

Lucknow, Uttar Pradesh, India

About the City: Popularly known as the seat of the Nawabi culture, Lucknow stands out as a city that takes pride in the endearing but subdued articulation of its essence and

identity. Its mystical elegance and amorous ethos rarely fail to fascinate a perceptive mind. Indeed, it is difficult to remain unimpressed by its ‘tehzeeb’ (cultural refinement), hospitality, politesse, cuisines and ‘Shaam-e-Awadh’. At the same time, Lucknow is placed among the fastest growing cities of India and is rapidly emerging as a manufacturing, commercial and retailing hub. This unique combination of rich cultural traditions and brisk economic growth provides Lucknow with an aura that refuses to fade away.

Weather: Lucknow has a warm humid subtropical climate with cool, dry winters from December to February and dry, hot summers from April to June. The rainy season is from mid-June to mid-September. The average temperature for June is as follows:

Month	June
Average high °C	38.7
Average low °C	27.1
Precipitation mm	107.4

For further information visit: <http://lucknow.nic.in/>

Connecticut, United States of America

Weather: In Connecticut summers are humid and very warm, with temperatures exceeding 90 °F (32 °C) on 7–8 days per year. Winters are cold with moderate snowfall interspersed with rainfall and occasionally mixed precipitation. The average July temperatures are;

Month	July
Average high °C	28.1
Average low °C	18.6
Precipitation mm	101.9

Food and drink: Both bottled and tap water are safe for consumption. Tap water is regulated (by the EPA) to be safe when coming from the tap, and bottled water is regulated (by the FDA) to be safe when bottled. Variety of food options are available, suiting individuals taste and preferences.

Money and shopping: USA uses Dollar. The current exchange rate is approximately 1 USD = 63.77 INR. International Visa and Master cards are all accepted in USA.

Time: Time there is five hours behind of Greenwich Mean Time. The daylight saving time is +1 hour

Smoking: The Connecticut state has restrictions on smoking in restaurants, government and private worksites.

Electricity : Electrical current is 110V (120V), 60 Hz. Flat pin plugs are used – Type A and B.

Telephone numbers : The telephone country code for USA is +1.

For further information visit - <http://www.cityofnewhaven.com/>

Finland

Weather: Finland has four distinctly different seasons that transform the white winter wonderland to a green leafy summer in just a few months. Temperatures during the year vary considerably: -30 C in winter and +30 C in summer are not uncommon. Due to its latitude, the length of the day (sunlight) in Finland is up to 20 hours around the summer solstice (21st June) and only about 6 hours around the winter solstice (21st December). In the end of September, the temperatures usually vary between 0 and +12 degrees Celsius.

Food and drink: You can drink the tap water in all Finnish towns and villages; it's very clean and delicious. Finnish food is of a very high hygiene standard.

Money and shopping : Finland uses the euro (EUR). The exchange rate is approximately the following: 1 Euro ~ Rs 69.23 INR. International Visa and Master cards are all accepted in Finland.

Time : The Finnish time is two hours ahead of Greenwich Mean Time.

Smoking: The non-smoking policy is very strict in Finland, meaning that smoking is prohibited in all public facilities (schools, busses, bus stops, shopping malls etc). Cafés, bars and restaurants are normally smoke free too. On the campus of the University of Eastern Finland, smoking is allowed only at marked smoking points outside.

Electricity : Electrical current in Finland is 220V (230V), 50 Hz. Plugs used are Type C and F.

Telephone numbers : The telephone country code for Finland is +358.

General emergency number: 112

For further information visit - <http://www.visitfinland.com/>

Saint Petersburg, Russia

Weather: Saint Petersburg has humid continental climate. Distinct moderating influence of the Baltic Sea cyclones result in warm, humid and short summers and long, cold wet winters. The average temperature for the month of July is as follows:

Month	July
Average high °C	23.0
Average low °C	15
Precipitation mm	79
% humidity	71

Food and drink : It is not recommended to drink tap water. Bottled water is a safer choice. Food is of a very high hygiene standard and various options are available to suit individual preferences.

Money and shopping : Russia uses Rouble. The exchange rate is approximately 1 Rouble ~ Rs1.01 INR. International Visa and Master cards are all accepted in Russia

Time: The Russian time is four hours ahead of Greenwich Mean Time. There is no daylight saving time for 2013.

Smoking : As per Russian anti-smoking law, smoking is officially banned in public areas including workplaces, stairwells of apartment buildings and near schools and hospitals. It also sets minimum prices for cigarettes and allows for higher tobacco taxes.

Electricity: Electrical current in Russia is 220V (230V), 50 Hz. Plugs used are Type C and F.

Telephone numbers: The telephone country code for Russia is +7.

For further information visit - <http://www.stpete.org/>

Catalogue for Reading Material (MCT 2015)

As provided in the pen-drive

Forestry

1. The Scheduled Tribes and Other forest dwellers (Recognition of Forests rights) Act, 2006

- 1.1 The Scheduled Tribes and Other forest dwellers (Recognition of Forests rights) Act, 2006
- 1.2 Rules
- 1.3 Guidelines
- 1.4 Clarifications on issues raised by states
- 1.5 Procedure for seeking approval for diversion of forest land
- 1.6 Frequently asked questions on the act
- 1.7 Applicability of act in municipal areas
- 1.8 Study of on implementation of FRA and Climate change vulnerability of forests in Maharashtra
- 1.9 Progress report February 2015

2. Remote Sensing and GIS in Forestry

- 2.1 Forest mapping by using RS and GIS techniques
- 2.2 Tropical forest resource assessment and monitoring
- 2.3 Geospatial tools to assess forest ecosystems under Climate change trajectories
- 2.4 Vegetation mapping in India using multi-temporal IRS WiFS data

3. Carbon and Biomass assessment

- 3.1 Carbon sequestration and economic potential of selected multipurpose species from Sikkim, India
- 3.2 Carbon Sequestration and Economic Potential of the Selected Medicinal Tree Species evidence From Sikkim, India
- 3.3 Biomass Resource Assessment and Existing Biomass Use in the Madhya Pradesh, Maharashtra, and Tamil Nadu States of India

4. Mine Reclamation

- 4.1 Rehabilitation of Red mud ponds at Indal, Belgaum
- 4.2 Standardizing rehabilitation protocol using vegetation cover for bauxite waste (Red mud) in eastern India
- 4.3 Restoration notes
- 4.4 An evaluation of successful reclamation of bauxite residue through afforestation activities in south India
- 4.5 Case study on Belgaum and Muri

5. Forest Certification

- 5.1 Fundamentals of forests certification
- 5.2 Utilizing the analytic hierarchy process AHP. in SWOT analysis a hybrid method and its application to a forest-certification case

6. Sustainable Forest management

- 6.1 Sustainable forest management through community participation
- 6.2 Sustainable forest management in India
- 6.3 Traditional forest knowledge and sustainable forestry
- 6.4 Sustainable forest management an Ecosystem approach
- 6.5 Criteria and indicators for SFM: New Findings from CIFOR
- 6.6 C&I for SFM: a case study of Sheopur Madhya Pradesh
- 6.7 Measuring Sustainable forest management

7. Productivity improvement

- 7.1 Clonal Plantations in India, Historical Perspective and Future Potential
- 7.2 Selection of Candidate Plus Trees of commercially important agro forestry species in Punjab
- 7.3 Improving Productivity of Agroforestry Plantations

8. Forest Governance

- 8.1 Bureaucracy and new management paradigms: modeling foresters' perceptions regarding Community based forest management in India
- 8.2 Convergence and Divergence in Forest and Tribal Policies in India
- 8.3 Report of High level committee to review the various acts administered by MoEFCC
- 8.4 Forests in Green Economy
- 8.5 FRA in North East India

9. Agroforestry and Urban Forestry

- 9.1 National Agroforestry policy, 2014
- 9.2 An introduction to Agroforestry
- 9.3 Agroforestry as a strategy for Carbon sequestration
- 9.4 Multifunctional Agroforestry systems in India
- 9.5 Urban forests as compensation measures for infrastructure development
- 9.6 Urban Forest Management: Peterborough
- 9.7 Urban Forest Management: Baltimore

10. Relocation and rehabilitation

- 10.1 Development–induced Displacement, Resettlement and Rehabilitation in India: Issues, Challenges and Way-forward

11. Watershed Management

- 11.1 Watershed Management Approach as Tool for Sustainable Development: A Case from Himachal Pradesh

12. ICT in forest Management

- 12.1 ICT initiatives in Madhya Pradesh forest department

13. Conservation and livelihood

- 13.1 Livelihoods, Forests, and Conservation in Developing Countries: An Overview
- 13.2 Entrepreneurship in value chains of non-timber forest products

14. Documentaries

- 14.1 Back to the roots
- 14.2 REDD plus redemption
- 14.3 Vanguard of Angul
- 14.4 Reviving faith

Environment management

1. Waste management

1.1 *Urban waste management*

1.1.1 Status report on Municipal Solid waste management in India by CPCB

1.1.2 Water and waste water in India

1.1.3 Report of the task force on waste to Energy (Vol I)

1.2 *Notifications and rules on Waste Management by Government of India*

1.2.1 Draft Bio-Medical Waste (Management & Handling) Rules,2015

1.2.2 Draft Solid Waste Management Rules, 2015

1.2.3 Draft Plastic Waste Management Rules, 2015

1.2.4 Draft Fly-Ash notifications,2015

1.2.5 Draft e-waste(management) Rules, 2015

2. Air pollution

2.1 Photochemical roles of rapid economic growth and potential abatement strategies on tropospheric ozone over South and East Asia in 2030

2.2 India-California Air pollution mitigation program (ICAMP)- Options to reduce road transport pollution in India

2.3 Emission inventory of non-methane volatile organic compounds from anthropogenic sources in India

2.4 Modeling NO₂ concentrations using MM5–CMAQ modeling system

2.5 TERI Policy brief 2014

2.6 Eco-guru- Air scare and beyond

2.7 Presentation by Sumit Sharma

3. Non Legally Binding Instruments on Forests

3.1 Non-legally binding authoritative statements

3.2 Non-legally binding instruments on all types of forests

3.3 Implementing NLBI on Forests in India

3.4 A Guide to Monitoring and Evaluation of the Non-Legally binding instrument on all type of Forests

3.5 Implementing NLBI in all types of forests

3.6 NLBI report 2013

4. International arrangement on forests

4.1 Global objectives on forests

4.2 International arrangement on forests beyond 2015

4.3 UNFF11 factsheet

5. International Law

- 5.1 Judicial handbook on Environment law (UNEP)
- 5.2 Overview of International law (UNFF)

6. Forests in SDG

- 6.1 Forests in SDG
- 6.2 Eight Session of the Open Working Group on Sustainable Development- Summary of key points on “Forests”
- 6.3 Summaries of 9th 10th and 11th session of the Open Working Group on Sustainable Development

7. Convention on Biological diversity

- 7.1 India’s Fourth Working report on CBD
- 7.2 India’s fifth National report on CBD
- 7.3 India’s protected areas action plan

8. United Nations Framework Convention on Climate Change

- 8.1 Background
- 8.2 United Nations Framework Convention on Climate Change
- 8.3 Lima Call for climate action
- 8.4 Lima summary of key outcomes
- 8.5 Warsaw international mechanism for loss and damage associated with climate change impacts

9. Intergovernmental Panel on Climate Change

- 9.1 IPCC introduction
- 9.2 Climate change 2014 summary for policy makers
- 9.3 Climate change 2014 synthesis report

10. REDD+ and CDM

- 10.1 UN-REDD policy brief 1- REDD+ and Green Economy
- 10.2 UN-REDD policy brief 2-Multiple benefits of REDD+
- 10.3 Forestry CDM projects in India 2014
- 10.4 Making the CDM a vehicle for North-South cooperation
- 10.5 Article-CDM policy dialogue
- 10.6 Managing forests for carbon
- 10.7 Negotiating new market based mechanisms
- 10.8 Empowering National and Local Institutions to Promote SD from CDM

- 10.9 Sustainable forest Management and REDD+ in India
- 10.10 Reference document for REDD+ in India
- 10.11 REDD+ brochure by IGNFA
- 10.12 Assessment for designing REDD+ projects in India

11. Climate Policy in India

- 11.1 National Action Plan on Climate Change
- 11.2 Climate policy in India: What shapes International, National and States policy?
- 11.3 Subnational actions on Climate Change in India

12. Sustainable Habitat

- 12.1 Climate Resilient and sustainable urban development
- 12.2 GRIHA
- 12.3 State of Play

13. Forests Vulnerability and Climate Change

- 13.1 Challenges in forest vulnerability assessment
- 13.2 Climate Change for Forest policy makers
- 13.3 Climate Change guidelines for Forest managers
- 13.4 FAO profile for Climate Change
- 13.5 Forests Vulnerability assessment at landscape level
- 13.6 Forests vulnerability assessment at local level

14. Disaster Risk Reduction

- 14.1 Linking Environment management to Disaster risk reduction
- 14.2 Opportunities in Environmental management for Disaster Risk Reduction
- 14.3 Natural Disaster Management in India

15. Sustainable development Challenges in India

- 15.1 Reducing inequalities: A sustainable development challenge
- 15.2 Sustainable development and Climate change
- 15.3 Local and Global Environment

16. Valuation of Ecosystem services

- 16.1 Theory of Ecosystem Services
- 16.2 The Economic value of forest ecosystems

Wildlife and Biodiversity conservation

1. Protected Area Management

- 1.1 A Guide for Planning Wildlife Management in Protected Areas and Managed Landscapes
- 1.2 Local Residents Perception of Benefits and Losses from Protected Areas in India and Nepal
- 1.3 A Battle Lost? Report on Two Centuries of Invasion and Management of *Lantana camara* L. in Australia, India and South Africa
- 1.4 Management effective evaluation in protected areas- a global study (2008)
- 1.5 Beyond Reserves: A Research Agenda for Conserving Biodiversity in Human modified Tropical Landscapes
- 1.6 Struggle for Survival

2. Vulture conservation

- 2.1 Action plan for Vulture conservation in Nepal
- 2.2 Action plan for Vulture conservation in India
- 2.3 Are conservation actions reducing the threat to India's vulture population?

3. Island Biodiversity

- 3.1 Biodiversity Characterization in Andaman and Nicobar Island
- 3.2 Presentation by Dr Alok Saxena

4. Man Animal Conflict

- 4.1 Dealing with Man tiger conflict in India
- 4.2 Carnivore conflict
- 4.3 Predator Alert
- 4.4 Back to the wild
- 4.5 Success stories in Human wildlife conflict

5. Bear Rescue

- 5.1 The Dancing bears of India
- 5.2 Walking the bears

6. CITES

- 6.1 CITES

7. Global Tiger Forum

- 7.1 Global Tiger Atlas
- 7.2 Tiger Action plans of 13 Range countries 3rd Edition

8. Effectiveness of Tiger reserves and Tiger Status

- 8.1 Tiger-Meter
- 8.2 Tiger status in 2014
- 8.3 Individualization of tiger by using microsatellites

9. Wildlife corridors and landscape management

- 9.1 Brahmaputra River islands as potential corridors for dispersing tigers: A case study from Assam, India
- 9.2 Canopies and corridors
- 9.3 A landscape-based conservation strategy to double the wild tiger population
- 9.4 Influence of Connectivity, Wild Prey and Disturbance on Occupancy of Tigers in the Human-Dominated Western Terai Arc Landscape

10. Conservation of Birds

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