

Training Programme on

Climate Change and Carbon Mitigation

for Scientists and Technologists Working in Government Sector

19 - 23 February 2018



सत्यमेव जयते

Sponsored by:

**Department of Science and Technology
Ministry of Science and Technology, Government of India**



Organized by:

**Biodiversity and Climate Change Division, Directorate of Research
Indian Council of Forestry Research and Education
P. O. New Forest, Dehradun – 248 006**



<p>Introduction</p>	<p>Climate change is one of the greatest challenges of present time. The threat is really perceptible, and has tangible impacts upon nature and life forms. Fossil fuel burning and deforestation have emerged as principal anthropogenic sources of rising atmospheric carbon dioxide and other green house gases, and consequential global warming. Indeed, there is compelling, comprehensive, consistent and objective evidence that human are altering the climate in ways that threaten our societies and the ecosystems. However, it is still possible through cooperation among international community and individual countries to stabilize carbon dioxide and other green-house gases concentration in the atmosphere.</p> <p>Scientists and technologists working in Government sector have limited exposure to the challenge of climate change and national/international efforts and initiatives in this direction. There is a need for exposure of scientists and technologists to this multidisciplinary area of scientific knowledge. Considering the importance of convergent and synergetic approach in management of science and technology in the changing global scenario, Department of Science and Technology has awarded one week training programme to Indian Council of Forestry Research and Education on “Climate Change and Carbon Mitigation” for Scientists and Technologists working in Government sectors during the current financial year.</p>
<p>Training Objectives</p>	<p>The training course will provide an excellent opportunity to scientists and technologists working in Government sector to know about the science of climate change, reports and projections of Intergovernmental Panel on Climate Change (IPCC) about climate change and natural ecosystems, international systems of UNFCCC and Kyoto Protocol, national scenario and climate policies, climate change mitigation and adaptation strategies, existing CDM regulations, REDD plus, carbon markets, and how various stake holders may develop meaningful projects that get host country approval and CDM registration.</p>
<p>Training Modules</p>	<p>Training module covers the following topics:</p> <ul style="list-style-type: none"> ➤ Introduction to climate change and carbon mitigation ➤ Climate change mitigation and adaptation: international and national institutional mechanism ➤ National Action Plan on climate change ➤ Climate change modeling and projections ➤ Impact of climate change on forest ecosystems and mitigation & adaptation strategies ➤ Impact of climate change on biodiversity ➤ Impact of climate change on agriculture and mitigation & adaptation strategies ➤ Impact of climate change on water resources and mitigation & adaptation strategies ➤ Impact of climate change on glaciers ➤ Energy sector and its role in climate change mitigation and adaptation ➤ Industry and transport sectors and its role in climate change mitigation and adaptation ➤ Evaluation of ecosystem services and carbon evaluation in the Himalayan Forests

	<ul style="list-style-type: none"> ➤ Carbon trading and concept of CDM & REDD+ for climate change mitigation ➤ Changing Climate Scenario: Group discussion based on movie show ➤ CO₂ Flux measurements using Eddy Covariance ➤ Field/institution visit ➤ Panel discussion: Training need exercise ➤ Valedictory session
Methodology/ Pedagogy	Methodology includes class room lectures with audio visual, experience sharing, group discussion, movie show, case studies and field/institutions visit. Active participation is solicited from participants.
Resource Persons	<ul style="list-style-type: none"> ➤ Dr. Neelu Gera, Deputy Director General (Research), ICFRE ➤ Sh. V.R.S. Rawat, Assistant Director General (Biodiversity and Climate Change), ICFRE ➤ Dr. Shilpa Gautam, Scientist 'D', Biodiversity and Climate Change Division, ICFRE ➤ Dr. R.S. Rawat, Scientist 'D', Biodiversity and Climate Change Division, ICFRE <p>Distinguished external resource persons from Department of Science and Technology, Forest Survey of India, Indian Institute of Remote Sensing, Wadia Institute of Himalayan Geology, Indira Gandhi National Forest Academy, Indian Agricultural Research Institute, Indian Institute of Tropical Meteorology, Indian Institute of Petroleum, and National Institute of Hydrology etc. shall also be invited for sharing their vast experience on different aspects of climate change and carbon mitigation in the training programme.</p>
Training Programme Director	<p>Sh. V.R.S. Rawat Assistant Director General (Biodiversity and Climate Change) Indian Council of Forestry Research and Education P. O. New Forest, Dehradun – 248006 (Uttarakhand) Tel: 0135 – 2750296/ 2224823, Fax: 0135 – 2750296 Email: rawatvrs@icfre.org , adg_bcc@icfre.org</p>
Target Group of the Training	Scientists/Technologists holding scientific posts/ working in scientific Ministries/Department of Government of India and State Governments, Autonomous Institutions/Public Sector Undertakings of Central/State Governments, Research and Development Institutions/ Research Laboratories of Central/ State Governments, Central and State Universities, State Science and Technology Councils.
Eligibility Criteria for Participation in Training	<ul style="list-style-type: none"> ➤ Scientists/technologists, who have completed 5 years of services in Group A, are eligible for participation in one week training programme. ➤ Age of scientists/technologists should be less than 58 years (as on 01/07/2017). ➤ Periodicity for attending the training programme is once in a block of two year (starting from 2012-13).
How to Apply for Participation in Training	Scientists/Technologists interested for this training programme may apply in the prescribed proforma (attached with the letter) duly recommended by the Controlling Officer of the Department/Organisation and send the same well in advance to ADG (Biodiversity & Climate Change), ICFRE, Dehradun. Prescribed proforma of nomination form alongwith biodata format for participating in the training programme can be downloaded from ICFRE web site (www.icfre.gov.in).

Lodging/Boarding and Transportation Facilities	Lodging/boarding and local transport facilities to the participants will be provided and arranged by ICFRE.
Expectation from Participants	The training will review all the relevant issues, develop briefs of the studies needed, and prepare a strategy for undertaking the research. Participants shall be ready with their experiences for sharing, and are welcome to bring brief case studies as well.

Brief about the ICFRE

Indian Council of Forestry Research and Education (ICFRE) is an autonomous body of the Ministry of Environment, Forest and Climate Change, Government of India. ICFRE is an apex body in the national forestry research system, has been undertaking the holistic development of forestry research through need based planning, promoting, conducting and coordinating research, education and extension covering all aspects of forestry. The Council deals with the solution based forestry research in tune with the emerging issues in the sector, including global concerns such as climate change, conservation of biodiversity, combating desertification and sustainable management of natural resources. ICFRE has 9 research institutes (AFRI, FRI, HFRI, IFB, IFGTB, IFP, IWST, RFRI, TFRI) and 4 research centres located in different parts of the country to cater forestry research needs of different bio-geographical regions of the nation.

ICFRE is proactive in the field of forests and climate change, and is contributing significantly to climate change issues relevant in the forestry sector at national and international levels. ICFRE is actively engaged in capacity building of stakeholders in various aspects of climate change since 2003.

ICFRE Hqs. is located in Forest Research Institute campus which is set in a lush green estate spread over 450 hectares. FRI campus houses well equipped laboratories, National Library and Information Centre, herbarium, arboreta, botanical garden, bambusetum, museums and experimental fields. FRI has three officer rest houses/scientist hostels. Most of the accommodations are with A/C facilities. The total capacity of officer rest houses/scientist hostels is more than 50, on single occupancy basis. Sports facilities are also available in the campus. Morning yoga/health sessions will also be arranged for the participants during the training programme.



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GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF SCIENCE & TECHNOLOGY
TECHNOLOGY BHAWAN, NEW MEHRAULI ROAD, NEW DELHI-110 016
TEL No. 011-26524941, 011-26590340, FAX- 011-26864570, 011-26590340
NOMINATION FORM

TRAINING PROGRAMEE, INSTITUTE & DATE OF TRAINING	Climate Change and Carbon Mitigation Indian Council of Forestry Research and Education, Dehradun 19-23 February 2018
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Name Prof./Dr./Mr./Ms.			
DESIGNATION:		ORGANISATION:	
DATE OF BIRTH		DATE OF ENTRY IN GOVT. SERVICE (AS GROUP 'A')	
SEX (M/F)		PRESENT PAY AND GRADE PAY:	
CATEGORY (GEN/SC/ST/OBC)			
COMPLETE ADDRESS/CONTACT NUMBER/E-MAIL			

EDUCATIONAL /PROFESSIONAL QUALIFICATION (GRADUATION ONWARDS)			
S. No.	YEAR	DEGREE	UNIVERSITY/INSTITUTE

RESEARCH EXPERIENCE			
S. No.	YEAR	TOPIC OF RESEARCH	SPONSORING AGENCY

CONTD..2

EXPERIENCE/POSTINGS FROM LEVEL OF SCIENTIST-'B' ONWARDS (IN GROUP 'A')				
S. No.	NAME OF THE ORGANISATION	POST HELD	FROM	TO

TRAINING ATTENDED				
S. No.	YEAR	NAME OF THE TRAINING PROGRAMME	NAME OF THE INSTITUTE	DURATION

SPECIFIC AREA IN WHICH SKILL UPGRADATION DESIRED	1. 2. 3.
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Signature of the Candidate

RECOMMENDATION BY THE CONTROLLING OFFICER
(Name & Designation with Seal)

(SIGNATURE OF THE RECOMMENDING OFFICER)
(Name & Designation with Seal)

N.B.: Mail this form to the concerned Training Institute under intimation to the Under Secretary (Training), DST at trngcell.dst@nic.in

BIODATA

NAME Prof./Dr./Mr. /Ms.																			

DESIGNATION:																			

ORGANISATION																			

DATE OF ENTRY IN GOVT. SERVICE (AS GROUP 'A')																			
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CATEGORY (GENERAL/SC/ST/OBC)																			
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DATE OF BIRTH																			
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SEX (M/F)			
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PRESENT PAY:																			
GRADE PAY:																			

COMPLETE ADDRESS (OFFICE)																			

COMPLETE ADDRESS (RESIDENCE)																			

CONTACT DETAILS	PHONE (O)	PHONE (R)	MOBILE No.	E-MAIL

EDUCATIONA/PROFESSIONAL QUALIFICATIONS (GRADUATION ONWARDS)					
S. No.	EXAMINATION/ DEGREE	UNIVERSITY/ INSTITUTE	YEAR	SUBJECT	DIVISION/PERCENTAGE OF MARKS

EXPERIENCE /POSTINGS (IN GROUP 'A' FROM THE LEVEL OF SCIENTIST -'B' ONWARDS)					
S. No.	NAME OF THE ORGANISATION	DESIGNATION	FROM	TO	DUTY PERFORMED

TRAINING ATTENDED				
S. No.	YEAR	NAME OF THE TRAINING PROGRAMME	NAME OF THE INSTITUTE	DURATION

RESEARCH EXPERIENCE				
S. No.	YEAR	TOPIC OF RESEARCH	SPONSORING AGENCY	GIST OF REASEARCH

PAPER PUBLISHED/ PATENT FILED/OBTAINED				
S. No.	YEAR	TOPIC OF PAPER/BOOK	GIST OF PAPER /BOOK	NAME OF JOURNAL/MAGZINE /PUBLISHER

<p>Briefly give significant contribution made by you in the field of Science and Technology during your service carries (200 words)</p>

Date:

(Signature)
