

GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION NO. - 2431
ANSWERED ON – 24/03/2022

STATUS OF SCHEMES RUN BY THE MINISTRY

2431. SHRI IRANNA KADADI:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the number of seminars, symposia etc. that have been instituted under the Research Education and Training Outreach (REACHOUT) Scheme;
- (b) the number of students who have been educated under International Training Centre for Operational Oceanography, State and UT-wise with a particular emphasis on the State of Karnataka;
- (c) whether any workshops, capacity building activities, seminars etc. have been conducted with the BIMSTEC (Bay of Bengal Initiative for Multi Sectoral Technical and Economic Cooperation) countries; and
- (d) if so, the details thereof?

ANSWER
THE MINISTER OF STATE (INDEPENDENT CHARGE) OF
MINISTRY OF SCIENCE AND TECHNOLOGY AND
EARTH SCIENCES
(DR. JITENDRA SINGH)

- (a) No seminars, symposia have been specifically instituted under the Outreach sub-scheme of REACHOUT umbrella scheme of Ministry of Earth Sciences (MoES). However an average about 100 seminars, symposia etc are being supported by MoES every year, under the Outreach program.

Apart from the above, a total of 72 training programs were conducted under the auspices of International Training Centre for Operational Oceanography (ITCOOcean) which is also a sub-scheme of REACHOUT umbrella scheme of MoES.

- (b) State and UT-wise list of trainees educated under ITCOOcean is provided in the Table 1. During 2020-21 and 2021-22 a total of 59 trainees representing various institutions from the State of Karnataka State participated in the ITCOOcean trainings.
- (c) Yes, workshops, capacity building activities, seminars etc. were conducted with the Bay of Bengal Initiative for Multi Sectoral Technical and Economic Cooperation (BIMSTEC) Countries.
- (d) The details of the activities conducted under BIMSTEC during last few years are as below:
 - BIMSTEC Centre for Weather and Climate (BCWC), NCMRWF, Noida organized a BIMSTEC Training Workshop on Improved Weather and Climate Prediction from August 26 to September 01 2014 at NCMRWF, Noida. Participants from three BIMSTEC countries (other than India) participated in the workshop.

- One scientist, Department of Meteorology and Hydrology, Myanmar, visited BCWC, NCMRWF for one year since February 2016 for pursuing collaborative research on weather and climate.
- The Governing Board (GB) meeting and the Scientific Advisory Committee (SAC) meeting of BIMSTEC Centre for Weather and Climate (BCWC) were held at NCMRWF on 30th July 2018. Following the GB and SAC meetings a workshop on “Severe Weather/Climate Disaster Warning for BIMSTEC Region” was held on 31 July 2018 in which the scientists from the member countries participated.
- In December 2019 four officers from National Centre for Hydrology and Meteorology (NCHM) Bhutan visited NCMRWF and attended a short-term training of two-weeks duration on numerical weather/climate modelling and data assimilation.
- NCMRWF organized an international conference on “Ensemble Methods in Modelling and Data Assimilation (EMMDA)” during 24-26 February 2020. Invitations were sent to the National Hydromet departments of the BIMSTEC member countries to participate. A scientist from Thailand Meteorological Department attended this conference and delivered a talk.
- An online workshop cum training programme on “Use of Ensemble Model Forecast Products for Weather/Climate” was held in March 2021. National Hydromet (NHM) Departments of all the BIMSTEC member countries, Indian Institute of Tropical Meteorology (IITM) and National Disaster Management Authority (NDMA) of India participated in this 3-day long workshop cum training programme.
- An online training programme on “Recent Development in Weather/Climate Modelling and Data Assimilation” and a scientific workshop on “Outstanding Challenges in Forecasting with Models” are scheduled to be held between 24 -29 March 2022. An online meeting regarding this was held on 21st February 2022 to finalize the agenda of the forthcoming online training and science workshop. The representatives from the National Hydromet Departments of the member countries participated in this meeting.

Table 1: State/UT-wise list of participants in ITCOOcean trainings

SL.NO	ITCOO course participants	2020-21	2021-22	Total
1	Andhra Pradesh	119	76	195
2	Andaman and Nicobar	18	0	18
3	Bihar	0	17	17
4	Goa	21	18	39
5	Gujarat	228	17	245
6	Haryana	0	3	3
7	Jammu and Kashmir	1	1	2
8	Jharkhand	6	1	7
9	Karnataka	33	26	59
10	Kerala	284	157	441
11	Lakshadweep	1	0	1
12	Madhya Pradesh	10	4	14
13	Maharashtra	249	31	280
14	New Delhi	22	15	37
15	Odisha	77	67	144
16	Pondicherry	16	5	21
17	Punjab	6	2	8
18	Rajasthan	13	6	19
19	Tamil Nadu	200	168	368
20	Telangana	43	46	89
21	Uttar Pradesh	21	14	35
23	Uttarakhand	17	7	24
24	West Bengal	98	38	136
	Total	1483	719	2202
