

## GLOBE TRAIN THE TRAINERS WORKSHOP AT DELHI

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The **GLOBE (Global Learning and Observations to Benefit the Environment) Train-The-Trainers Workshop** organized by Regional GOLBE Office for Asia-Pacific during June 2–5, 2010 at Bhabha Chamber, Scope Convention Centre, Lodi Road and American Centre, New Delhi. The workshop was supported by Public Affairs Section American Embassy, New Delhi and Ministry of Environment and Forests, Govt. of India.

The presence of Ms. Elizabeth Thornhill, Deputy Public Affair Officer, US Embassy, Ms. Diane Brandt, Public Affair Section, American Embassy and Mr. R. Mehta – Advisor, MOEF, Govt. of India has added more values to the workshop.



The Workshop was attended by 30 participants from both India and Abroad. A group of 4 Master Trainers provided hands-on experience to the participants during the training workshop [*Kindly refer Annexure 1 for List of Participants and Master Trainers*].

The Workshop started on June 2, 2010 with the Welcome Speech of Dr. Desh Bandhu, Director, GLOBE Regional Office and President, IES. He welcomed the GLOBE training team as well as the participants from all over the country and neighbouring countries (Bhutan & Nepal). He gave a brief introduction about the GLOBE Programme. Global Learning and Observations to Benefit the Environment (GLOBE) is a hands - on international environmental science and educational programme. The GLOBE Programme was introduced in April 1994 by U. S. Vice President Al Gore. It involves active participation of teachers, students and scientific research community in an effort to learn more about the environment and in performing experiments and analyzing data. It would strengthen the interaction or partnership between students and researchers etc. and will also help in establishing strong network and linkage with peer groups all across the world. It covers all the major components of environment like Atmosphere, Hydrology, Land Cover and soils. He also assured that the stay of both participants and the trainers would be made comfortable in every possible manner.

Followed by the welcome address, Mr. R. Mehta, Advisor – Ministry of Environment and Forests, Govt. of India and the Country Coordinator, GLOBE-India briefed the participants and the guests about the Objectives of the Workshop. Revealing that 4 trainers and around 30 participants from all over the world were participating in the workshop, he said the workshop serves the twin purpose of 'teaching the trainees' and 'helping the society' as a whole in the sphere of environment. He stressed on the need for spreading awareness among the masses and said understanding the globe through practical training and scientific learning would help overcome many environmental problems.



Being the country coordinator, he informed about the status of the GLOBE Programme in

India which started in 2000. He told that the GLOBE Programme is being implemented in 16 states of the Country namely Andhra Pradesh, Maharashtra, Assam, Orissa, Goa, Punjab, Jammu and Kashmir, Uttaranchal, Sikkim, West Bengal, Tripura, Chhattisgarh, Kerala, Tamil Nadu, Karnataka, and Himachal Pradesh. 100 Schools from each state are involved in the GLOBE Programme.

After the brief introduction about the GLOBE Program by Mr. R. Mehta, Ms. Elizabeth Thornhill, Deputy Public Affair Officer, US Embassy appreciated the efforts made by Indian Environmental Society for organizing the International GLOBE Training Workshop. She mentioned that GLOBE links students, teachers, and the scientific research community in an effort to learn more about the environment through student data collection and observation. She also extended her help, on behalf of American Embassy, needed for implementing the GLOBE Programme in India and has promised to provide necessary guidance at the time of need.

In the end, Ms. Diane Brandt, Public Affair Section, American Embassy gave the Vote of Thanks. She accentuated the significance of the workshop to all the participants. She extended her gratitude to Dr. Desh Bandhu and Mr. R. Mehta and also thanked all the participants and others who were directly or indirectly associated with the workshop.

After the inaugural session, the participants introduced themselves. There were two participants from Bhutan (Mr. Binod Rai & Ms. Namkha Lhamo), one from Nepal (Mrs Leela Pradhan) and rest were from different parts of India. Most of the participants were teachers and few of them were associated with NGOs. They were all looking forward to this session and excited about the practical training that would be imparted to them during the workshop.

Dr. Desh Bandhu gave a brief presentation on the GLOBE programme, its objectives and the various events and activities conducted under the programme. He then went on to explain the details of the four day schedule of the workshop to the participants.

### **GLOBE sessions**

The workshop focused on GLOBE's 'Basic' Protocols:

1. Atmospheric Protocol
2. Hydrology Protocol
3. Soil Protocol
4. Land Cover Protocol

The workshop comprised of variety of interesting activities including GLOBE theoretical sessions, computer tutorial sessions, hands-on measurements i.e. field work. June 2 focused on the theory of Atmosphere, Soil and Hydrology Protocol. The participants even learned how to use GPS. 3<sup>rd</sup> June morning session started with theory on Landcover Protocol and field survey of Soil and Hydrology protocol.

On June 4th participants were taken to the residence of Chief Minister of Delhi, Mrs Sheela Dixit. There they were taken to the herbal garden in her residence and later on she addressed the participants. Michael Pelletier, Minister Counselor for Public Affairs, American Embassy was also present during this session. After a tea break in her residence participants were taken for a field visit for Landcover Protocol. After lunch they went to American Centre where they learnt the procedure of data feeding on computers. Ms. Elizabeth Thornhill invited everyone present to attend the Eco-festival held in the American Centre on the eve of World Environment Day. *[Kindly refer the programme schedule attached as annexure 2]*



The participants were divided in two groups (GROUP A and GROUP B) during the field training of Soil and Hydrology protocol while four groups were made during Landcover protocol.



The following table shows the GLOBE Protocols taken up by each trainer:

SI.No.	GLOBE Protocols	GLOBE Trainers
1.	Atmosphere	<ul style="list-style-type: none"> <li>• Dr. Desh Bandhu</li> </ul>
2.	Hydrology	<ul style="list-style-type: none"> <li>• R.K Garg</li> </ul>
3.	Soils	<ul style="list-style-type: none"> <li>• Dr. Avinash Tiwari</li> </ul>
4.	Land Cover/Biology	<ul style="list-style-type: none"> <li>• Mr. R. Mehta</li> </ul>

The workshop concluded on June 5th, 2010, on World Environment Day with nice presentations from DPS Mathura Road and Bal Bharti Public School, Pitampura on Hongkong Wetland Park. The students also shared their experiences during their field visit. Dr. Desh

Bandhu and Michael Pelletier addressed the participants and felicitated them with the Certificate of Participation certifying them as GLOBE Trainers as they have been trained in all the four GLOBE Investigations. The session concluded with vote of thanks by Mr. Ramesh Jain, Senior Programme Manager, U.S Embassy.

### **Resource Material**

The Indian Environmental Society has provided the following Resource Material as the part of the registration kit to all the participants:

- GLOBE Teachers Training Guide
- GLOBE Instrument Kit
- GLOBE Instrument Shelter
- Cloud and Soil Chart
- GLOBE Teachers Manual
- IES Publications
- MUC Field Guide
- Appendix

### **Achievement of the Workshop**

- For the first time in GLOBE history GLOBE kit has been given to participants.
- The protocols – atmosphere, soil, hydrology and land cover were discussed in detail during the workshop. In the workshop, issues like implementation of the program, challenges, and strategies to be adopted to make the program successful in India etc. were discussed between the trainees and GLOBE trainers.
- All the participants from all over the country and neighbouring countries have been awarded with the GLOBE Trainer Certificate. They are now capable of imparting training on GLOBE Investigations in their respective regions.
- Strong linkages have been established among the beneficiaries of the workshop.



<b>Annexure1</b>				
Final Participants list for GLOBE Train the Trainers Workshop in New Delhi - June 2 to 5, 2010				
<b>Name</b>	<b>Designation</b>	<b>Address</b>	<b>Phone</b>	<b>E-mail</b>
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Dr. Avinash Tiwari	Master Trainer			
Mr. Raj Mehta	Master Trainer			
Dr. R. K. Garg	Master Trainer			



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## Annexure2

<b><u>DAY 1 (June 2, 2010)</u></b>	
<b>Venue: Bhabha Chamber, Scope Convention Centre, Lodi Road</b>	
9:00 – 9:30	<p>Inaugural Session</p> <p><b>Welcome Address</b> By <i>Dr. Desh Bandhu, Director, GLOBE Regional Office</i></p> <p><b>Address By</b> By <i>Mr. R. Mehta, Advisor, MOEF, Govt. of India</i></p> <p><b>Address</b> By <i>Ms. Elizabeth Thornhill, Deputy Public Affair Officer, US embassy</i></p> <p><b>Vote of Thanks</b> By <i>Ms. Diane Brandt, Public Affair Section, American Embassy</i></p>
9:30 – 10:00	<b>Introduction of Participants</b>
10:00 – 10:30	Objectives & Procedures for the Workshop – A Discussion By <i>Dr. Desh Bandhu, Director, GLOBE Regional Office</i>
10:30 – 11:00	<i>TEA Break</i>
<b>11:00 – 13:00      SESSION I</b>	
11:00 – 12:00	<p><b>Atmosphere Protocol: Theory</b> (Master Trainer: - <b>Dr. Desh Bandhu</b>)</p> <ul style="list-style-type: none"> <li> Temperature</li> <li> Rainfall</li> <li> Cloud</li> <li> GPS</li> <li> Data Entry/About data sheets</li> </ul>
12:00 – 13:00	<b>Atmosphere Protocol: Field Work</b>
13:00 – 14:00	<b>LUNCH</b>
10:30 – 11:00	<i>TEA Break</i>
<b>14:00 – 16:30      SESSION II</b>	
14:00 – 15:15	<p><b>Soil Protocol: Theory</b> (Master Trainer: - <b>Dr. Avinash Tiwari</b>)</p> <ul style="list-style-type: none"> <li> Soil Characterization</li> <li> Horizons</li> <li> Structure</li> <li> Texture</li> </ul>

	<ul style="list-style-type: none"> <li>✚ Carbonates</li> <li>✚ pH</li> <li>✚ Particle Size Distribution</li> <li>✚ Soil Moisture</li> <li>✚ Soil Temperature</li> <li>✚ Data Entry/ About data sheets</li> </ul>
15:15 – 17:30	<b>Hydrology Protocol: Theory</b> <b>(Master Trainer: - Dr. R. K. Garg)</b> <ul style="list-style-type: none"> <li>✚ Temperature</li> <li>✚ Transparency</li> <li>✚ pH</li> <li>✚ Conductivity</li> <li>✚ Data Entry/About data sheets</li> </ul>
<u><b>DAY 2 (June 3, 2010)</b></u> <b>Venue: Bhabha Chamber, Scope Convention Centre, Lodi Road</b>	
<b>9:30 – 13:00      SESSION III</b>	
9:30 – 11:00	<b>Land Cover Protocol: Theory</b> <b>(Master Trainer: - Mr. R. Mehta)</b> <ul style="list-style-type: none"> <li>✚ Land/Manual Mapping</li> <li>✚ Crown cover/Ground cover</li> <li>✚ Height/Circumference of tree</li> <li>✚ MUC System</li> <li>✚ Accuracy Assessment</li> <li>✚ Data Entry/About Data Sheets</li> </ul>
11:00 – 11:30	TEA Break
11:30 - 13:00	<b>Exercise on Land Cover</b>
13:00 – 14:00	<i>LUNCH</i>
<b>14:00 – 17:00      SESSION IV</b>	
14:00 – 17:00	<b>Hydrology Protocol and Soil Protocol: Field Work</b> <b>(Master Trainer: - Dr. Avinash Tiwari &amp; Dr. R. K. Garg)</b>
<u><b>DAY 3: (June 4, 2010)</b></u> <b>Venue: - AMERICAN CENTRE</b>	
09:00 – 09:30	<i>Visit to Residence of Chief Minister, Govt. of NCT of Delhi</i>
11:00- 14:00	<b>Land cover Protocol: Field Work</b> <b>(Master Trainer: - Mr. R. Mehta)</b>

14:00 - 15:00	<i>LUNCH</i>
15:00 – 16:30	<b>Data Entry Protocol: Theory</b> (Master Trainer: - Dr. Avinash Tiwari & Dr. R. K. Garg)
16:30 – 17:00	Regional Workshop / Follow Up: <b>Ms. Elizabeth Thornhill</b> , Deputy Public Affair Officer, <i>US Embassy</i> <b>Dr. Desh Bandhu</b> , Director, <i>GLOBE Regional Office Asia - Pacific</i>
<b><u>DAY 4: (June 5, 2010) World Environment Day</u></b>	
<b>Venue: AMERICAN CENTER</b>	
<b>Time: - 09:30 -11:00</b>	
09:30	<b>Presentation on GLOBE Program</b> <i>By Dr. Desh Bandhu, Director, GLOBE Regional Office, Asia – Pacific</i>
09:45	<b>Presentation by GLOBE School</b> <i>Bal Bharti Public School, Pitampura</i>
10:00	<b>Presentation by GLOBE School</b> <i>Delhi Public School, Mathura Road</i>
10:10	<b>Address</b> <b>By Mr. Michal Pelletier, Minister Counsellor for Public Affairs, U.S Embassy</b>
10:20	<b>Certificate Distribution By</b> <i>Mr. Michal Pelletier, Minister Counsellor for Public Affairs, U.S Embassy</i> <i>Dr. Desh Bandhu, Director, GLOBE Regional Office, Asia – Pacific</i> <i>Dr. Avinash Tiwari: GLOBE Master Trainer</i> <i>Dr. R. K. Garg: GLOBE Master Trainer</i>
10:45	<b>Vote of Thanks</b> <i>By Mr. Ramesh Jain, Senior Programme Manager, U.S Embassy</i>
11:00	<b>Tea break</b>
11:05	<b>(Optional): eco reels ... films on wild Life, water, Forests and Climate change for Children and Adult</b>  <i>By Krishnendu Bose, Tarini Manchanda</i>  <b>The Story of Stuff, The Story of Bottled Water</b>