

Training Workshop on
**“Role of Earth observation in Multi-hazard disaster risk assessment
and monitoring targets of the Sendai Framework”**

4–8 December 2019

Day 1: December 4, 2019

Time	Program	Lead
09:30 – 10:00	Registration	SDMC (IU)
10:00 – 10:30	Inauguration & Group Photo	
<i>10:30 – 11:00</i>	<i>Tea/ Coffee</i>	
11:00 – 12:30	Refreshing the DRR terminologies, Sendai Framework and Earth observation	Dr. Shirish Ravan, UNOOSA
<i>12:30 – 13:30</i>	<i>Lunch Break</i>	
13:30 – 15:00	Practicing satellite image processing and GIS skills and getting familiarity with data, software, open source satellite images etc.	Mr. Moses Duguru, UNOOSA
<i>15:00 – 15:15</i>	<i>Tea/ Coffee</i>	
15:15 – 16:30	ISRO Disaster Management System and International Charter Space and Major Disasters	G. Srinivasa Rao, ISRO

Free evening

Dinner: 19.30 onwards

Day 2: December 5, 2019

Time	Program	Lead
09:30-09:45	Reflections of previous day	Dr. Shirish Ravan
09:45-10:45	An overview of basic concepts and potential of satellite remote sensing (optical and microwave imaging) & GIS for flood hazards mapping, monitoring and early warning.	Dr. C M Bhatt
10:45 – 11:00	<i>Tea/ Coffee</i>	
11:00 – 12:30	Hands-on session to open source data, tools/processing software's, web portals and online data repositories for multi-hazards assessment.	Dr. C M Bhatt
12:30 – 13:30	<i>Lunch Break</i>	
13:30 – 14.45	Hands-on session Cont.	Dr. C M Bhatt
14:45 – 15:00	<i>Tea/ Coffee</i>	
15:00 – 16:00	Basics of remote sensing, types of satellite images available for multi-hazard risk assessment – open source images, ways to access etc.	Dr. Giriraj Amarnath IWMI

16:15 – 19:00 Visit to Dandi Kutir, Gandhinagar

Dinner: 19:30 onwards

Day 3: December 6, 2019

Time	Program	Lead
09:30-09:45	Reflections of previous day	Dr. C M Bhatt
09:45-10:45	Opportunities for enhancing knowledge on application of RS&GIS for natural hazards assessment offered through CSTEAP/IIRS	Dr. C M Bhatt
10:45 – 11:00	<i>Tea/ Coffee</i>	
11:00 – 12:30	Creating spatial data repository for monitoring targets of the Sendai Framework	Mr Moses Duguru UNOOSA
12:30 – 13:30	<i>Lunch Break</i>	
13:30 – 15:00	Flood risk assessment using remote sensing data and modeling tools	Dr. Giriraj Amarnath Mr. Niranga Alahacoon IWMI
15:00 – 15:15	<i>Tea/ Coffee</i>	
15:15 – 16:30	Drought monitoring and risks assessment using remote sensing data and socio-economic data	Dr. Giriraj Amarnath Mr. Niranga Alahacoon IWMI

17:15 – 19:30

Movie Screening (GIDM Auditorium)

Dinner: 19:30 onwards

Day 4: December 7, 2019

Time	Program	Lead
09:00 – 09:15	Review/reflection of Day-III	Dr. Giriraj
09:15 – 10:30	Disaster risk transfer through flood index insurance and bundling insurance solutions using earth observation data and modeling tools <i>Hands-on session on the disaster risk transfer tools and approaches</i>	Dr. Giriraj Amarnath IWMI
10:30 – 10:45	<i>Tea/ Coffee</i>	
10:45 – 12:00	Space Technologies for Disaster Risk Management Applications	Dr Nilesh Desai Associate Director SAC, ISRO
12:00 – 13:00	<i>Lunch Break</i>	
13:00 – 14:00	<i>Hands-on session on the disaster risk transfer tools and approaches</i>	Dr. Giriraj Amarnath Dr. Surajit Ghosh
14:00 – 15:00	Open discussion session Working on the rapid response mapping products	Moderator Dr. Shirish Ravan
15:00 – 15:15	<i>Tea/ Coffee</i>	
15:15 – 15:45	Wrap-up & Closing	SDMC (IU)

16:00 – 19:30 Shopping (Ahmedabad)

Dinner: 20.00 onwards

SAARC Charter Day
Regional workshop on
Use of Space Technologies in Disaster Risk Reduction (DRR)
December 8, 2019

06:45 – 11:30 **Ahmedabad City (World Heritage City) Heritage Walk**

12:00 – 13:00 Lunch

Time	Program
13:00 – 13:15	Opening session Introduction of the participants
13:15 – 13:45	Launch of Report: Insurance as an Agricultural Disaster Risk Management Tool: Evidence and Lessons Learned from South Asia Presentation by Dr Giriraj, IWMI
13:45 – 14:15	Key findings of South Asia & Pacific Report: Specific to SAARC Region Presentation by Dr. Sanjay Srivastava, UNESCAP (via Skype)
14:15 – 14:45	<i>Group photo and Coffee Break</i>
14:45 – 16:15	Panel Discussion Contribution of Earth Observation Information and Sendai Framework for Disaster Risk Reduction: Opportunities, cooperation and challenges Panelists: <ol style="list-style-type: none"> 1. Mr. P.K. Taneja, Director, SDMC (IU) - Moderator 2. Dr. Shirish Ravan, UNOOSA/UN-SPIDER 3. Dr. Giriraj, IWMI 4. Mr Moses Duguru, UNOOSA 5. Mr. Niranga Alahacoon, IWMI
16:15 – 16:30	Wrap-up
16:30 – 17:00	<i>Tea/ Coffee</i>

Dinner: 19:30 onwards