Activities related to MAIRS at Future Earth South Asia Regional Office at the Divecha Centre for Climate Change, Indian Institute of Science, Bengaluru, India

Activities

1.MAIRS hosted a two-day workshop on 'Data and Tools for Climate Resilience Planning in South Asia' over 13th to 14th August 2018. The workshop provided a platform for dialogue on climate adaptation and resilience, among research communities, policy makers, funding agencies, Government officials, NGOs, Sustainability enterprises, and other stakeholders, in South Asia. The workshop was attended by scientists, economists, NGO representatives and Govt. officials from Nepal, Bhutan, Myanmar, Sri Lanka and India. The participants expressed their desire to collaborate with the Future Earth Regional office on a host of climate adaptation related issues

2.An international workshop on Urban floods was organized during 27th to 29th June 2018 by the regional office of the Future Earth in Bengaluru. This workshop was a part of activities to promote work on Monsoon Area Integrated Research on Sustainability (MAIRS-FE). The program was formulated by Divecha Centre for Climate Change (DCCC) and Inter-disciplinary Centre for Water Research . The main purpose of the workshop was to share the experience in dealing with urban floods in different parts of world. This experience will increase our resilience to deal with extreme rainfall events that are expected in the future. The workshop attracted participants from different organizations in India and scientists from Paris, Canada, Malaysia, Sri Lanka and Nepal

3. Future Earth (MAIRS-FE) at DCCC, along with The Centre for Climate Change Research in Pune and the Earth System Science Organization of the Ministry of Earth Sciences, Government of India, organized a 5 day 'Science and Training Workshop on Climate Change over the High Mountains of Asia during 8th to 12th Oct 2018, at Indian Institute of Tropical Meteorology ,Pune. The workshop discussed the use of regional climate downscaling techniques relevant to the high mountains of Asia. This workshop enabled the participants to derive science-based climate information that can be integrated with local knowledge. There were 48 participants (8 foreign and 40 Indian) and 28 speakers (5 International and 23 National). The foreign participants were from Nepal, Srilanka, Cambodia, Laos, Thailand and Spain. The foreign speakers were from Nepal, Japan, South Africa, UK and USA. More details are available on the workshop is available at :http://cccr.tropmet.res.in/home/workshop/oct2018/index.jsp

4. Future Earth (MAIRS-FE) at DCCC and The World Academy of Sciences (Central and South Asia regional partner) organized a workshop on climate change for young scientists from 5th to 7th December 2018 at Indian Institute of Science in Bengaluru. The workshop attracted young scientists from Africa, Central Asia, South and South east Asia. The talk by eminent experts on impact of climate change on developing countries was followed by presentations on local climate change by the participants from Benin, Ghana, Sri Lanka, Ethiopia, Uganda ,Cameroon and Kenya.

Publications in 2018

1.Vaishya, A., Babu, S. N. S., Jayachandran, V., Gogoi, M. M., Lakshmi, N. B., Moorthy, K. K., & Satheesh, S. K. (2018). Large contrast in the vertical distribution of aerosol optical properties and radiative effects across the Indo-Gangetic Plain during the SWAAMI–RAWEX campaign. Atmospheric Chemistry and Physics, 18(23), 17669-17685.

2.Satheesh, S. K. (2018). Aircraft emissions and the environment. Current Science, 115(11), 2003-2004.

3.Prijith, S. S., Moorthy, K. K., Babu, S. N. S., & Satheesh, S. K. (2018). Characterization of particulate matter and black carbon over Bay of Bengal during summer monsoon: results from

the OMM cruise experiment. Environmental Science and Pollution Research, 25(33), 33162-33171.
4.Rupa, R. C., Mujumdar, P. P. (2018), Dependence structure of urban precipitation extremes, Adv. Water Resour., 121, 206-218.
5.Dey, P., & Mujumdar, P. P. (2018). Multiscale evolution of persistence of rainfall and streamflow. Advances in Water Resources, 121, 285-303.
6.Shawki, D., Voulgarakis, A., Chakraborty, A., Kasoar, M., & Srinivasan, J. (2018). The South Asian Monsoon Response to Remote Aerosols: Global and Regional Mechanisms. Journal of Geophysical Research: Atmospheres, 123(20), 11-585.
7.Prakash, S., Kumar, M. R. R., Mathew, S., & Venkatesan, R. (2018). How accurate are satellite estimates of precipitation over the north Indian Ocean? Theoretical and Applied Climatology, 134(1-2), 467-475.
8.Anand, N., Sunilkumar, K., Satheesh, S. K., & Moorthy, K. K. (2018). Distinctive roles of elevated absorbing aerosol layers on free-space optical communication systems. Applied optics, 57(25), 7152-7158.
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13. Chitra-Tarak, R., Ruiz, L., Dattaraja, H. S., Mohan Kumar, M. S., Riotte, J., Suresh, H. S., McMahon, S. M., Sukumar, R. (2018). The roots of the drought: Hydrology and water uptake strategies mediate forest-wide demographic response to precipitation. Journal of Ecology, 106(4), 1495-1507.
14. Bhushan, S., Syed, T. H., Arendt, A. A., Kulkarni, A. V., Sinha, D. (2018). Assessing controls on mass budget and surface velocity variations of glaciers in Western Himalaya, Scientific Reports, 8(1), 2045-2322.
15. Prakash, S. (2018). Capabilities of satellite-derived datasets to detect consecutive Indian monsoon droughts of 2014 and 2015. Current Science, 114(11), 2362-2368.
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33. Ghosh, R., Chakraborty, A., & Nanjundiah, R. S. (2018). Relative role of pre-monsoon conditions and intraseasonal oscillations in determining early-vs-late indian monsoon intensity in a GCM. Theoretical and Applied Climatology, 131(1-2), 319-333.
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