

# 8<sup>TH</sup> WORLD CLIMATE CONGRESS

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### **Building climate resilience in Asia and the Pacific: Emerging technologies, the game changers**

The Asia-Pacific region continues to be hit by complex climate related disasters often with cascading impacts on communities that transcend national boundaries. A rapid sequence of disasters outpaces the resilience of people – relentlessly eroding development gains by aggravating poverty, intensifying environmental degradation, disempowering vulnerable groups and widening inequalities. Indeed, three years into the implementation period of the 2030 Agenda the region seems to be moving in the wrong direction on inequality and environmental degradation. The proposed presentation will anchor how emerging technologies enables a paradigm shift from resilience-building to inclusion, and empowerment of communities who are at ever higher risk of disasters. Building on IPCC's 2018 Special Report on the criticality of a no more than 1.5 degree increase in the planet's temperature, the report highlights how the increased likelihood of extreme climatic events may enhance the exposure and vulnerability of the poor further. The presentation will highlight the link between new technologies and people empowerment. Governments need evidence-based risk information on marginalized and vulnerable people to inform regional, national, and sub-national policies that promote inclusion and empowerment. These are increasingly being informed by advances in big data analytics, artificial intelligence and the internet of things – all of which can transform the ways in which disaster risk information, for example, is gathered, analyzed, and communicated. Further, the presentation will highlight advances in data science, and new technologies in disaster risk reduction that feed into evidence-based planning and policy interventions to address the unmet needs of inclusion, empowerment and resilience. For example, more and better risk data are being captured by using machine learning for image recognition. High-resolution satellite and drone imagery are now available to inform risk diagnostics comprehensively and in real time. A machine learning algorithm can use these images to identify more reliable visual indicators of risk or resilience.

### **Biography**

Sanjay K Srivastava, Ph D (Applied Physics), is presently Chief of Disaster Risk Reduction at UN Economic and Social Commission for Asia and the Pacific (ESCAP). He was ESCAP Regional Adviser on Disaster Risk Reduction from Oct 2009 to June 2014; Head of SAAARC Disaster Management Centre – New Delhi from 2007-2008; Deputy Project Director of Disaster Management Support Programme at Indian Space Research Organisation (ISRO); Scientist/Engineer at ISRO HQ Bangalore since 1991. He is the recipient of ISRO's Team excellence award in 2008-09 for his contributions towards harnessing space technology applications for the benefits of rural poor. While he has more than 100 publications on disaster risk reduction, including research papers in peer reviewed international journals, intergovernmental reports and books; Sanjay has been a lead author of ESCAP's flagship publication – Asia-Pacific Disaster Report.

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