Yuriy Kuleshov, J Earth Sci Clim Change 2018, Volume 9
DOI: 10.4172/2157-7617-C2-041

Yuriy Kuleshov
Bureau of Meteorology, Australia

Climate risk and early warning systems

Every year, disasters caused by weather extremes lead to significant losses of life and socioeconomic impacts. From 1970-2012, close to 2 million deaths and US$ 2.4 trillion of economic losses were reported globally because of droughts, floods, windstorms, tropical cyclones, storm surges and extreme temperatures alone. According to the intergovernmental panel on climate change's fifth assessment report, the frequency and severity of such hazards is increasing, exacerbating risks to lives and livelihoods around the world, particularly in developing and least developed countries. Improved multi-hazard early warning systems are the most effective way to increase resilience and to adapt to climate change. However, in poor and vulnerable countries, weather data is often unreliable or totally lacking. Climate Risk and Early Warning Systems (CREWS) is an international initiative which aims to significantly increase in the capacity for seamless multi-hazard early warning system to generate and communicate effective impact-based early warnings and risk information for hazardous hydro-meteorological and climate events. Its purpose is to protect lives, livelihoods and property in least developed countries and small islands developing states. The crew's coalition is led by France, with support from Australia, Germany, Luxembourg, the Netherlands, Japan and Canada. It is being implemented by the World Meteorological Organization (WMO), the UN office for disaster risk reduction (UNISDR), the World Bank and the Global Facility for Disaster Reduction and Recovery (GFDRR). Projects are underway in the Caribbean, the Pacific, West Africa, Burkina Faso, Congo, Mali, Niger and Papua New Guinea to enhance their hydro-meteorological warning services combined with improving their emergency plans and operations.

Biography

Yuriy Kuleshov is a Professor and an Academician, affiliated with the Australian Bureau of Meteorology and the Royal Melbourne Institute of Technology University. He has authored 15 book chapters and 70 papers in peer-reviewed journals. His main research interests are climatology of severe weather phenomena (tropical cyclones, thunderstorms and lightning); satellite remote sensing for monitoring of severe weather and climate and seasonal climate prediction. For lifetime achievements in satellite remote sensing of the Earth's environment he was elected as an Academician of the Russian Academy of Engineering Sciences.

yuriy.kuleshov@bom.gov.au, yuriy.kuleshov@rmit.edu.au