



UN 2023 Water Conference Side Event Climate Resilience: Addressing Drought and Flood

- 1) 23 March, Time 2 - 6:30 pm EDT, Bronx Community College/City University of New York
2155 University Ave Gould Memorial Library (GML) Bronx, NY 10453
- 2) 24 March, Time 6 – 9 pm EDT, Columbia University Lecture room 501, Floor 5, Northwest Corner
Building, 550 West 120th Street New York, NY 10027

Organized by: International Association of Advanced Materials

(IAAM, Org. No. 802503-6784, www.iaamonline.org), Sweden

[Partner: People's World Commission on Drought and Flood (PWCDF) www.pwcdf.org]

Background on the event

The International Association of Advanced Materials (IAAM) has committed to align with the United Nations' Sustainable Development Goals (SDGs) for the upcoming decade, by adopting the slogan '[Advancement of Materials to Sustainable and Green World](#)'. The association recognizes that the pursuit of a sustainable future should be humanity's top priority. To this end, the IAAM organized a series of side events to explore the latest strategies for managing the challenges posed by drought and flood. The primary objective was to identify the risks associated with climate change and develop innovative strategies for climate resilience, with a focus on water management and preservation approaches. The IAAM aims to leverage over four decades of proven experience through indigenous community-driven decentralized water resources management, adopting a comprehensive approach to water rejuvenation, action, and innovation. The goal is to rejuvenate the hydrologic water cycle using natural mechanisms. On March 22, 2023, at the United Nations Headquarters in New York, the IAAM hosted a water conference to integrate knowledge about water security from various fields. The conference featured a side event program, four book releases, and three water-themed films, among delegates. The 13th Annual Book of the IAAM (ISBN 987-91-88252-39-5) was also released, detailing the association's work in line with the UN SDGs for the new decade. The side event facilitated discussions on comprehensive drought and flood solutions via expert talks and panel discussions.

Side Event 1: The International Association of Advanced Materials has taken multiple initiatives to contribute towards achieving the SDGs. IAAM is committed to promoting Materials Research and Innovations that address sustainable development needs by gathering resources and technology to facilitate this objective. **On March 23, 2023, at Bronx Community College (BCC), City University of New York (CUNY)**, the Chairman of PWCDF, [Dr. Rajendra Singh](#) and Secretary General of IAAM, [Dr. Ashutosh Tiwari](#), emphasized sustainable growth through water rejuvenation, mitigation, and adaptation measures. The side event commenced with introductions, welcome remarks, and felicitations by BCC-CUNY, President, Dr. Thomas A. Isekenegebe, [Dr. Ashutosh Tiwari](#), and Prof. Paramita Sen, followed by a keynote address by Dr. Rajendra Singh. The first session focused on assessing climate resilience addressing drought and flood with science and society, while the second session delved into indigenous knowledge via a panel discussion and range of case studies. The third session explored science and technology delving into global cooperation and water security.

Distinguished speakers included member of CUNY CREST Institute – Dr. Paramita Sen, Dr. Neal Phillip, Dr. Naresh Devineni; V. Prakash Rao, Chairman, IPRBC; Zachary Weiss, Founder, Water Stories; Ethan Hirsch-Tauber, Founder, The Water Folk; Dr. Martin Schoonen, Brookhaven National Lab; Dr. Dimitri Katehis, NYC Dept of Environmental Protection; Dr. Dipak Gyawali, Commissioner, Himalayan Hindukush, Nepal; Sweta Jhunjunwala, Founder Tulsipatra Foundation; Jalbiradari National Convener, Satyanarayana Bolisetty; Jalbiradari member, Nagamani Bolisetty; Howard University, Dr. Christopher Boxe, and SKECT Chairperson, Dr. Snehal Donde; Shrikant Paygavhane,

Mission 500, India; Rajesh Sundaresan, (Singapore) Advisor, PWCDF, Sweden; Nicholas Salazar Sutil, Director, Guardians Worldwide; Frederick Kincheloe, Savin Engineers, White Plains, USA. The closing remarks were given by the Executive Director of the CUNY CREST Institute Dr. Reza Khanbilvardi. Gajendra Singh Shekhawat, MP and Minister of Jal Shakti, Government of India, and G. Asok Kumar, Director General Namami Gange, Government of India, praised sustainability, cooperation, and water security. Four important books, River Rejuvenation Drought and Flood Mitigation Community, Drying River of Civilization, Exploration Journey (Khoj Yatra)- World Pledge to Rejuvenation the Water-Cycle and Voyage of the water man launched during this side event. The side event held during the 2023 UN Water Conference presented credible testimony from around twenty scientific experts, discussing water cycle mitigation, adaptation, and innovation. The event, which had both onsite and online participation, focused on the expertise and knowledge required for the development of advanced water technologies that would foster a climate-neutral society. The event received registrations from 300+ participants from over 25 different countries and featured talks from experts from all continents.

Side Event 2: Advanced Materials have found increasing applications in critical areas like water cycle rejuvenation, energy, and environment, making them indispensable for achieving the SDGs set by the United Nations. **The event on 24 March 2023 at Columbia University** featured renowned speakers, including PWCDF Chairman, Dr. Rajendra Singh; Secretary General of IAAM, [Dr. Ashutosh Tiwari](#); Prof. Mukand Singh Babel from Asian Institute of Technology, Thailand; Founder of Vaaghdhara, Jayesh Joshi; Maharashtra Jalbiradari Convener, Narendra Chugh; (Sustainability Management Student Association) SUMASA Board 2023 President Ana Cristina Merino and SUMASA Board 2023 President Abhimanyu Tyagi, along with many other esteemed delegates. 50+ students and 100+ external attendees registered for the session. The session was moderated by SUMASA Alumni and PWCDF advisor Sweta Jhunjhunwala. The introduction session was followed by a public lecture on water risk due to climate change by Dr. Rajendra Singh followed by a Q&A session. The event ended with UN delegates mingling with Columbia University students and faculty and speaking about how we must revitalize ecosystem and rejuvenate water cycles through Global Cooperation, including Scientific Cooperation, and the 2030 #SDGs Agenda, including transboundary water initiatives, since water is the primary resource for humanity to survive. By doing their own part one can ensure a sustainable future for all. Three significant water-themed movies, including Reviving River, Water is Peace, and Resilience, were released during this incident.

Water Action Agenda: International Association of Advanced Materials, #SDGAction50056 (<https://sdgs.un.org/partnerships/climate-resilience-addressing-drought-and-floods>)

The IAAM and PWCDF are working universally with Materials Science, Engineering, and Technology with academia, industry, policymakers, governance, and civil society to solve water system problems for a green world. Impactful knowledge and practices are enough to support sustainable and effective drought and flood policies. Thus, drought and flood mitigation are essential to SDG 6 and other SDGs like health and food security.

Key issues discussed

Reducing risks to life, livelihoods, and ecosystems while increasing resilience through key points:

1. Response to drought and floods, resilience, and mitigation.
2. Water research on climate resilience, challenges and best practises adopted through case studies.
3. Importance of government, industry, and public society in combating.
4. Climate-neutral R&D and green technologies for the sustainable development agenda.
5. Revitalise the ecosystem and rejuvenate water cycles through global scientific cooperation.
6. Education, training for community to adopt eco-friendly practices and propagate water pledge.

Key recommendations for action

By rejuvenating nature, communities can build resilience to extreme weather events like droughts and floods, reducing risks to lives, livelihoods, and ecosystems. Following proposed implementation:

1. Community-led nature rejuvenation. Implement clean and safe water management.
2. Prepare an annual report to provide a summary of the state of flood and droughts.
3. Train students to adopt and implement sustainable ecological practices.
4. Develop water-borne disease healthcare management practices for achieving SDGs agenda.
5. Climate-neutral R&D and green technologies for water.
6. Practices to involve government, industry, and public society in combating drought and floods.