



ADRC Highlights

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Asian Disaster Reduction Center

Higashikan 5F, 1-5-2
Wakinohamakaigan-dori,
Chuo-ku, Kobe
651-0073 Japan

Tel: 078-262-5540
Fax: 078-262-5546
editor@adrc.asia
https://www.adrc.asia

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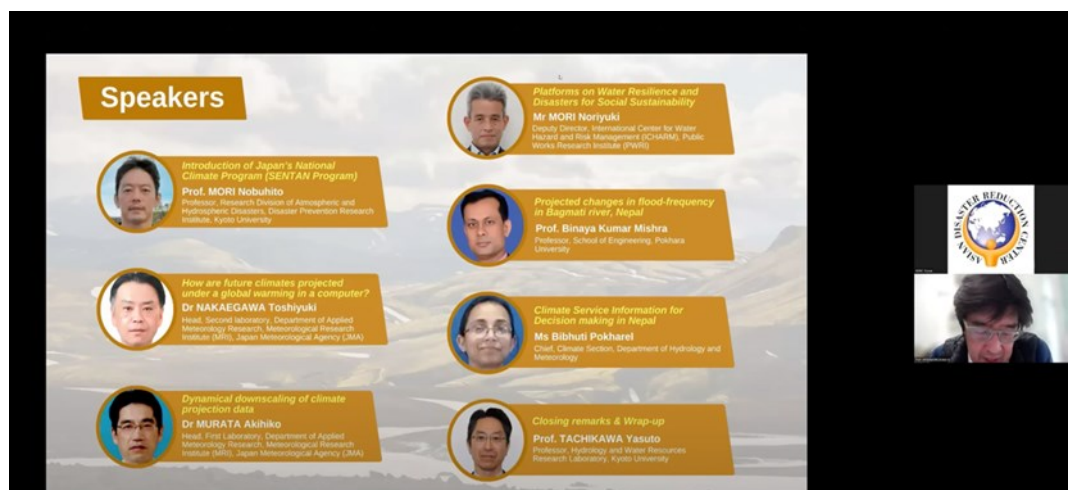
● Promoting Cooperation with Affiliated Institutions

Webinar on Climate Change Projection with Nepal

The second webinar series on climate change projection for disaster risk reduction in Asia-Pacific region was held on 10 January 2024. This webinar highlighted the results of projection study held in Nepal and the utilization of climate change-related data. The Advanced Study of Climate Change Projection (SENTAN) Project invited two experts from Nepal to the webinar to share their information and experiences.

Prof. Binaya Kumar Mishra, School of Engineering at Pokhara University, presented the projected changes in flood frequency at Bagmati River in Nepal. The Bagmati river basin, located at the upstream of Khokana, covers the Kathmandu valley which in recent years has been experiencing devastating flood events. In view of this, Pokhara University set up the Hydrologic Engineering Center-Hydrologic Modeling System (HEC-HMS) to assess the change in flood discharge under climate change scenarios. Very high-resolution of Non-Hydrostatic Regional Climate Model (NHRCM) precipitation outputs was used to assess the future flood risks in the Kathmandu valley. The major results found in this study were: 1) greater precipitation extremes were found for the Regional Climate Model (RCM) precipitation output; and 2) the increase in precipitation extremes for future climate condition indicates greater flood risks in Kathmandu valley.

Ms Bibhuti Pokharel, Chief of Climate Section, Department of Hydrology and Meteorology (DHM) of the Government of Nepal, presented the Climate Service Information that DHM provides. She mentioned that DHM monitors the precipitation and temperature in Nepal to inform imminent droughts, heat waves, and extreme events. The climate data, produced by DHM, is utilized for climate projections as well as to inform the national master plan and policy on climate change. Moreover, the climate service information is provided to the following sectors: aviation, agriculture, water, energy, health, and disaster risk reduction (DRR). However, there are limitations and gaps in the climate information service. Ms Pokharel said that the quality of climate information was not high due to some limitations in research capacity and infrastructure. For instance, while DHM currently utilizes statistical downscaling, it has no capacity to utilize dynamical downscaling. Therefore, the assistance of partners such as SENTAN will be highly appreciated.



Speakers of the Webinar

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Other speakers at the webinar were: (1) Prof. MORI Nobuhito, Research Division of Atmospheric and Hydrospheric Disasters, Disaster Prevention Research Institute, Kyoto University, who introduced Japan's National Climate Program or SENTAN; (2) Dr NAKAEGAWA Toshiyuki, Head of Second Laboratory, Department of Applied Meteorology Research, Meteorological Research Institute of Japan Meteorological Agency, who showed how future climates are projected in a computer; (3) Dr MURATA Akihiko, Head First Laboratory, Department of Applied Meteorology Research, Meteorological Research Institute of Japan Meteorological Agency, who presented the dynamical downscaling of climate projection data; (4) Mr MORI Noriyuki, Deputy Director, International Center for Water Hazard and Risk Management, who presented on the Platforms on Water Resilience and Disasters for Social Sustainability; and (5) Prof. TACHIKAWA Yasuto, Hydrology and Water Resources Research Laboratory, Kyoto University, who explained about the key points raised at the webinar and encouraged further collaboration between SENTAN Project and DHM Nepal.

This webinar was co-facilitated by Prof. KOBAYASHI Kenichiro, Associate Professor at the Risk Communication Research Department, Security Research Communication Group, Research Center for Urban Safety and Security in Kobe University and Mr Gerry Potutan, Senior Researcher at Asian Disaster Reduction Center (ADRC). The video recording and materials can be accessed on the website:

<http://www.climate.dpri.kyoto-u.ac.jp/sentan4/webinar/webinar02.html>

JICA Knowledge Co-Creation Program: Comprehensive Disaster Risk Reduction for the African Region JFY2023

The JICA Knowledge Co-Creation Program “Comprehensive Disaster Risk Reduction for the African Region 2023” was conducted from 5 December 2023 to 29 January 2024, with the cooperation of JICA Kansai. It was conducted in a hybrid format, with both online and in-person programs in Japan, with attendance from 13 government officials from 12 countries: Algeria, Cote d' Ivoire, Egypt, Kenya, Liberia, Malawi, Mozambique, Senegal, Sierra Leone, South Sudan, Zimbabwe, and Cape Verde.

The course aims to assist participants to formulate and implement local DRR plans to promote disaster reduction measures in their country. The participants attended lectures, joined site visits and Town Watching activity. They also participated in exercises to formulate a draft local DRR plan. ADRC would like to express its sincerest gratitude to all the supporting organizations and universities for their cooperation in conducting the course.



Town Watching by Dr Ogawa, Executive Secretary of ADRC

● ADRC Visiting Researcher Report**Ms Aishath Ifa Mohamed (Maldives)**

As-salaamu ‘alaykum (Peace be upon you).

I am Ifa, holding the post of senior officer for resource management at the National Disaster Management Authority (NDMA) of the Maldives, directly handling emergency operations and resources. On

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24 January 2021, I began my career in disaster management. Before my appointment as a senior officer in resource management, I held the post of emergency response officer at NDMA.

NDMA's purpose is working towards a resilient Maldives that is ready and prepared for emergencies and disasters. NDMA is carrying out a more holistic model, in the processes of hazard identification and mitigation, community preparedness, integrated response efforts, and recovery.

The Maldives is a nation of numerous small islands situated at low elevations, making the entire country susceptible to physical vulnerability due to its flat topography. The Maldives frequently encounters disasters characterized by low intensity but high frequency, including storm surges, flooding from rainwater, and urban fires. Therefore, one of the most important objectives of NDMA is to mainstream disaster risk reduction at the national level. This includes planning processes, establishing agreed standards, and developing procedures and policies.

As a senior officer working in the emergency management department, I have been a crucial player in emergency situations at the Emergency Operation Center. I am responsible for coordinating relief and humanitarian aid during emergencies and conducting assessments after disasters. I am also tasked with strengthening emergency operations to ensure an effective and coordinated response and strengthening local governments for emergency response.

In addition, I have facilitated trainings on disaster risk management for different stakeholders. I carry out the Island Disaster Management Plan (IDMP) in the communities and awareness sessions for vulnerable populations to achieve the NDMA's vision for a resilient Maldives. Moreover, I organized the establishment of Community Disaster Response Teams (CERT) and also provided them with special training regarding response.

I want to express my appreciation for the continuous dedication of ADRC in facilitating knowledge co-creation initiatives, fostering research, and advancing DRR in member countries across Asia. I am truly thankful for the chance to participate in the 2023 Visiting Researcher program, representing the Maldives, and expanding my understanding of DRR.

**Mr Habil Huseynov (Azerbaijan)**

I am Habil Huseynov from Azerbaijan. I am a Visiting Researcher at the Asian Disaster Reduction Center (ADRC VR FY2023).

I graduated from the Academy of the Ministry of Emergency Situations of the Republic of Azerbaijan with a bachelor's degree with an Honors Diploma in 2019 in the profession of "Emergency Situations and Life Safety Engineering." Then, I graduated from the same Academy with a master's degree with an Honors Diploma in 2021 in the specialization of "Emergency Management" in the "Emergency Situations and Life Safety Engineering" profession. In addition, I am a doctoral student at Azerbaijan State Oil and Industry University in the profession "Emergency Safety (by area)." I am working on my dissertation work called "Evaluation (assessment) of Possible Flood Disasters and Appropriate Measures at Yevlakh-Neftchala Zones of Kura River Basin."

Since 2021, I have been working as a teacher at the Academy of the Ministry of Emergency Situations of the Republic of Azerbaijan. I teach cadets (students) "Civil Defense" and "Defense Against Weapons of Mass Destruction" subjects at the Academy. I already have six scientific articles that have been published in different scientific journals. I have been actively joining International conferences, seminars, and other events related to scientific research. Furthermore, during my stay in Japan I had a great chance to attend International Recovery Forum 2024.

I'm really interested in participating in the ADRC Visiting Researcher Program to learn advanced techniques for disaster risk management in Japan. Azerbaijan has faced numerous natural disasters



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throughout its history, causing significant damage to infrastructure and impacting the population. So, after this program, I will be able to assist my department in teaching cadets on new approaches to disaster management systems. Moreover, this program will help me to develop myself in this field, especially disaster prevention. And then, as a field officer, I will be able to work more confidently in disaster management.

Finally, I would like to thank the Government of Japan and ADRC for providing us with such a great opportunity. I also want to express my sincere gratitude to all the staff of ADRC for their enthusiastic support during my stay in Japan.

● Participation in International Conferences**Participation in the 22nd Steering Committee Meeting of Sentinel Asia**

ADRC attended the meeting of the 22nd Sentinel Asia Steering Committee held at TASA (Taiwan Space Agency) in Taiwan, on 30-31 January 2024.

The meeting was attended by Japan Aerospace Exploration Agency (JAXA), which serves as the secretariat of the Sentinel Asia Joint Project Team, other space agencies in Asia, and image analysis organizations. ADRC participated to facilitate between these organizations.

At the meeting, JAXA started out by explaining the purpose of the meeting and the current status of Sentinel Asia operations and issues. In addition, the space agencies reported on their current status of operations. The Asian Institute of Technology (AIT) and Yamaguchi University had a presentation on the topics related to image analysis. ADRC reported on the status of cooperation with the United Nations Office for Disaster Risk Reduction (UNDRR) and other organizations, as well as on the activities of the Sentinel Asia workshops held in Turkey and Nepal in 2023. Finally, a discussion was held on the revision of the Sentinel Asia Strategic Plan based on the presentations by each organization.



Meeting Participants

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