Concept Note

Strengthening National and Subnational Capacity for Sustainable Disaster Risk Reduction, Climate Change Adaptation and Mitigation in the Maldives

Two Days Advance Technical Workshop
Climate Change and Disaster Risk Analysis In Maldives
Using Geospatial Data and Applications
In-person, Male
By Invitation
August 14 & 15, 2023
Monday, August 14: 8:00 am-3:30 pm (Maldives Time)
Tuesday, August 15: 8:00 am-3:30 pm (Maldives Time)

Introduction:

UNESCAP and UNDP are jointly implementing a two-years (2022-2023) SDG-funded project to strengthen the integration of Disaster Risk Reduction and Climate Change Adaptation with the national and sub-national development planning to ensure better achievement of SDG and Agenda 2030 in the Maldives.

Under this project, UNESCAP is developing an updated risk profile of Maldives based on high-resolution climate projection information and geospatial techniques to provide technical advisory to the Government on strengthening existing data and information products and support evidence-based policy making for DRR and CCA and design interventions.

To ensure that the stakeholders are well-equipped to use and apply the developed database and update the modelling results, hazard, vulnerability, and risk maps, ESCAP is planning to enhance the institutional capacity of the stakeholders and youths through a series of training programmes. ESCAP has already conducted a webinar on “Introduction to Geographic Information Systems & Getting Started with QGIS” on June 15, 2023 for the stakeholders.

For the second technical training of the series, ESCAP is holding an in-person hands-on training on (1) Developing Landuse/Landcover Data for Maldives using open source satellite data and (2) Climate Change Risk Assessment for Maldives based on most recent downscaled climate projection data using QGIS. This workshop will help the participants to enhance basic knowledge of climate models, climate change projection and climate change scenario. This will also help to build to participant’s technical capacity and knowledge on how to use QGIS to generate landuse/landcover maps as well as perform climate change risk assessment for Maldives.

Goal:

The main goal of this workshop is to help participants to develop skill in (1) updating existing landuse/landcover maps and (2) climate risk assessment using geospatial technology.
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<tr>
<td>8:00am-8:20am</td>
<td>Registration</td>
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<tr>
<td><strong>Opening Session</strong></td>
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| Opening Remarks (15 minutes) | • ESCAP, TBC  
  • TBC                                             |
| A Brief Introduction to the Project (15 minutes) | • Leila Salarpour Goodarzi                                                       |
| Panel Discussion, Data in Action and the way forward (45 minutes) | A brief discussion on how this data, tools and information developed in this project can be integrated into the policies in the Maldives and the challenges remaining in translating the information into action |
| • NDMA  
  • MMS  
  • LGA  
  • UNDP  
  • UNRC  
  • TBC  
  Q&A                                                                 |
| 9:45 am-10:25 am | **Session 1**: Basics of climate change -Theory  
  • Prangya Gupta  
    a. Climate change projection using climate models  
    b. Climate change scenario  
    c. Climate projection variables and data  
    d. Q&A |
### DAY 2

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<tr>
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<td><strong>8:00am-8:10am</strong></td>
<td>Registration</td>
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<td><strong>8:10 am – 8:30 am</strong></td>
<td><strong>Planning for the day</strong></td>
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<td>• Leila Salarpour Goodarzi</td>
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<td><strong>8:30 am – 9:45 am</strong></td>
<td><strong>Session 4: Introduction to Exposure Analysis Using Climate</strong></td>
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<td>• Prangya Gupta, Parvathy Subha</td>
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<td>a. Methodology</td>
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<td>b. Pre-processing of raw data</td>
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<td>c. Trend analysis of variables and making layouts</td>
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<td>d. Calculate population exposure (maps, tables and graphs)</td>
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<td>e. Q&amp;A</td>
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<td>9:45 am -10:00 am</td>
<td>Break</td>
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| 10:00 am-11:30 am   | **Session 5**: Introduction to Exposure Analysis Using Climate Projection Data- Hands-on exercise, Part II  
                                • Prangya Gupta, Parvathy Subha  
                                a. Calculate exposure of different sectors (agriculture, transportation and critical infrastructure) (maps, tables and graphs)  
                                b. Using digital elevation models to analyze urban inundation  
                                c. Q&A |
| 11:30 pm-12:30 pm   | Lunch and Prayer Break                                                           |
| 12:30 am- 2:30 pm   | **Session 3**: Impact-based forecasting- Hands-on exercise                         
                                • Prangya Gupta, Parvathy Subha  
                                a. IBF using seasonal outlook data  
                                b. IBF using Ocean wave model data  
                                c. IBF using cyclone forecast data |
| 2:30 pm – 3:30 pm   | **Concluding Session**  
                                Upcoming Works in Maldives and the way forward  
                                • UNDP  
                                • ESCAP  
                                Concluding remarks |