Intra-ACP Climate Services and Related Applications Programme

Innovating Climate Services: Building Capacity for the Future





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INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME







Building Domestic Capacity for an Effective Adaptation and Resilient Economic Development

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in Small Islands Developing **Countries of the African**, **Caribbean and Pacific States**

Objectives of the side event:

- Raising awareness for the need of domestic capacity for sustainable climate action
- **Discuss the innovative solutions to build domestic capacity**
- Make recommendations to promote capacity building

SIDE EVENT

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ClimSA Capacity Building Strategy



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The Need for Climate Services: Challenges and **Opportunities**

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- Increasing Demand for Actionable **Climate Information**
 - As the impacts of climate change become more severe, there is a growing need for reliable, tailored climate services to support decision-making across sectors.
- Bridging the Gap Between Science – Practice – Policy

Effective climate services require bridging the divide between climate science and the practical needs of end-users, such as policymakers, businesses, and communities.

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Addressing Complex, Interdisciplinary Challenges

Developing climate services involves navigating a web of interconnected social, economic, and environmental factors, necessitating a holistic, interdisciplinary approach.

Challenges Facing the Climate Services Industry

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Data Fragmentation

Climate data is often dispersed across multiple sources, making it challenging to integrate and derive meaningful insights. Overcoming this fragmentation is crucial for providing comprehensive and coherent climate services.



Skill Gaps

The climate services industry faces a shortage of professionals with the necessary interdisciplinary skills, including data science, climate science, and communication. Bridging these skill gaps is crucial for driving innovation and meeting the growing demand for climate-smart solutions.



Many climate services are not easily accessible or user-Improving the usability and accessibility of climate information is essential for widespread adoption and

friendly, particularly for non-technical stakeholders. informed decision-making.

4

Effective climate services often require cross-sectoral collaboration, but silos and a lack of coordination can hinder progress. Fostering stronger partnerships and knowledge-sharing is key to unlocking the full potential of climate services.

Limited Accessibility

Lack of Collaboration

The Need for Climate-Smart Solutions

Increasing Extreme Weather Events

The frequency and intensity of extreme weather events, such as heatwaves, droughts, and floods, are on the rise, posing significant threats to communities and economies worldwide. Climate services are essential in providing the data, insights, and tools needed to mitigate these risks and build resilience.

Growing Demand for Actionable Information

Policymakers, businesses, and communities are increasingly seeking climate-related information that is tailored, relevant, and actionable. Climate services must evolve to deliver more granular, user-friendly data and decision-support tools to meet this growing demand.

Transitioning to a Low-Carbon Economy

The global shift towards a low-carbon economy is driving the need for climate services that can support sustainable decision-making, emissions monitoring, and the development of climate-friendly technologies and strategies.

FIGURE 1: Therory of Change





Emerging Technologies Transforming the Sector



Earth Observation

Advancements in satellite technology and remote sensing are revolutionizing the collection and analysis of climate data, providing more comprehensive and accurate information for climate services.



Big Data and Analytics

The ability to process and interpret vast amounts of climate data using sophisticated analytics and machine learning algorithms is enabling more precise forecasting, risk assessment, and decision-support tools.



Cloud Computing

Cloud-based platforms are making it easier to store, access, and share climate data and services, facilitating collaboration and the development of innovative climate applications.

Mobile and Web-based Solutions

User-friendly mobile apps and web-based platforms are bringing climate information and services directly to the fingertips of stakeholders, improving accessibility and engagement.

Leveraging Innovative Technologies



Earth Observation

Satellite data and remote sensing technologies can provide invaluable insights into climate patterns and environmental dynamics to inform climate services.



Advanced Analytics

Applying cutting-edge data analytics, machine learning, and artificial intelligence can enhance the accuracy and usability of climate services.

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User-Centric Platforms

Developing intuitive, user-friendly platforms and mobile applications can improve the accessibility and uptake of climate services by diverse end-users.



Cloud-based Solutions

Cloud computing and cloud-based tools can facilitate the scalability, flexibility, and costeffectiveness of climate service delivery.





Embedding Climate Services within Decision-making Processes

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Identify Decision Needs

Understanding the specific information requirements and decision-making contexts of various stakeholders is crucial for designing climate services that are tailored and actionable.

Integrate into Workflows

Embedding climate services seamlessly into the existing workflows and decision-making processes of end-users can ensure their regular use and promote evidence-based decision-making.

Iterative Improvement

Continuously evaluating the impact and relevance of climate services, and adapting them based on user feedback, can lead to more effective and sustainable decision-support tools.





IMPLEMENTED ACTION PLAN



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Showcasing Best Practices and Success Stories



- Development of ClimSA station;
- Climate services for Renewable Energy;
- SEB tool development.

Effective Partnerships

Synergy with EU Horizon programme: NOA, Neurali AI, ECMWF Universities for Master programme: ICPAC, AGRHYMET, CAPC

Capacity-Building Initiatives

Foundational training (ICPAC) Pre-RCOF trainings

Job-training at ACMAD.

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The Path Forward: Roadmap for Climate Services Innovation

Enhance Data Integration	Improve data interoperability, standardisation, a accessibility to provide a more comprehensive cohesive view of climate information.
Advance Analytical Capabilities	Leverage emerging technologies, such as artificial intelligence and machine learning, to enable more accurate forecasting, risk assessment, and decision-support tools.
Foster Collaborative Ecosystem	IS Facilitate stronger partnerships and knowledge-sharing among public, private, and civil society actors to drive innovative climate solutions.
Invest in Capacity Building	Develop interdisciplinary training programs and upskill the climate services workforce to ensure the availability of the necessary expertise.
Enhance User Engagement	Improve the usability and accessibility of climate services to better meet the needs of a diverse range of stakeholders.



and and **Intra-ACP Climate Services** and Related Applications Programme

Thank you for your attention



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EUMETSAT AESA

