Coastal Cities, Climate Resilience and Cultural Heritage Preservation Conference

Building Resilient Coastal Cities: A Global and African Perspective

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Introduction to the African School of Regulation (ASR)

- The ASR is a continental centre of excellence dedicated to strengthening energy regulation and policy development across Africa.

- Vision: A transformed African energy sector delivering Reliable, affordable, sustainable energy for all.

- Mission: Strengthen energy regulation by:
  - Building human capacity (training, research, advisory) and
  - Reforming regulatory frameworks to unlock capital and innovation.

The Climate–Energy Reality

- Africa faces the dual challenge of climate impacts and energy poverty.
  - Extreme weather and sea-level rise threaten coastal grids, plants, and pipelines.
  - Africa must triple electricity generation while adapting to climate risks.
  - Resilience, inclusion, and climate alignment must guide all decisions.

Global and African Coastal Vulnerabilities

- **Climate Threats to Coastal Cities**
  - Rising sea levels and intensified storms increase vulnerability of coastal cities worldwide.
- **African Coastal Challenges**
  - African cities like Lagos (Nigeria), Saint-Louis (Senegal), and Keta (Ghana) face severe flooding, erosion, and displacement risks.
- **Venice as Resilience Model**
  - Venice's historic battle with flooding offers lessons for African cities on resilience and adaptation.

Baguida – Togo

Why Adaptation Must Be Central

- Critical infrastructure located in vulnerable coastal zones.

  - Rising temperatures increasing system stress and technical losses.

  - Hydrological risks affecting hydro-dependent systems.

  - Need climate-proof planning: siting, redundancy, and smarter networks.

How do we respond? (1)

- **Effective policies and frameworks**
  - Tailored Policies and regulatory frameworks empower local municipalities to address coastal vulnerabilities effectively.
  - e.g, Sea'ties initiatives help to structure policy and regulatory models for African municipalities, guiding them from vulnerability assessment to designing interventions.
- **Contextualising Solutions and Programmes**
  - Inclusive and gender-responsive programmes reflect community realities, enhance resilience in African coastal cities.
  - Sea'ties, and Inclusive African Coastal City Resilience (INACCT Resilience), identify local challenges and leading practices to create action programmes with local stakeholders for coastal city resilience.
- **Ensure Scalability and multidisciplinary approach, along with public education and knowledge sharing**
  - Multidisciplinary collaboration, community engagement and public education enable scalability and replication of successful resilience projects.

Policy Priorities for Coastal Resilience

- Mandatory climate-risk assessments for new energy infrastructure.
  - Coastal corridor protection strategies for key assets.

  - Integration of distributed energy for redundancy.

  - Incentives for resilient materials, elevated substations, and

    digital solutions.

  - Capacity building and knowledge transfer

Regulatory Tools for Climate Resilience

- Allow resilience upgrades as cost-recoverable investments
  - Performance-based regulation to reward reliability and digitalisation
  - Enforce planning standards for SLR, storms, and extreme heat
  - Grid codes for renewable integration, storage, and DERs

How do we respond? (2)

Cooperation is essential

Together, we can:

- Share lessons from global resilience hubs like Venice.

- Develop localised adaptation strategies for African cities.

- Build capacity through joint research, training, and technology transfer.

Thank You for your attention!

Contact Information

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