TECHNOLOGY AND INNOVATION CONCLAVE 2.0

AI in Climate Action & Resilience – Sri Lanka
Policy Frameworks and Mechanisms

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Background & Rationale

- High vulnerability to floods, droughts, landslides

- National AI & Digital Transformation underway

- AI enables predictive, data-driven climate resilience

- Current initiatives largely fragmented

National AI Policy Landscape

- National AI Strategy (AI Sri Lanka 2028)
- Alignment with SDGs & sustainability
- Responsible, inclusive, human-centric AI
- Data, skills, R&D, ethics as enablers

Institutional Mechanisms for AI

- Digital Economy Authority (DEA)
- GovTech & ICTA (interim)
- Cross-sector coordination potential
- Platform for AI–climate integration

Climate Policy Frameworks

- National Climate Finance Strategy (2025–2030)

- National Adaptation Plan (2025–2034)

- Climate Change Secretariat

- National Climate Change Policy & NDCs

Why AI for Climate Resilience?

- Early warning & anticipatory action

- Climate-smart agriculture

- Water & reservoir optimisation

- Evidence-based policy planning

AI Use Case: Early Warning Systems

- Flood & landslide forecasting

- Drought prediction

- Cyclone & reservoir inflow modelling

- AI-triggered anticipatory action

AI Use Case: Climate-Smart Agriculture

- Predictive crop planning
- Precision irrigation
- Pest & disease early warning
- Farmer advisory platforms

AI Use Case: Integrated Climate Systems

- Food–water–climate analytics
- Satellite & remote sensing
- Digital advisory services
- Community-level resilience

Policy Gap Identified

- No dedicated AI-for-climate framework
- Limited coordination & scaling
- Data silos
- Opportunity for national leadership

Proposed Policy Direction

- AI-enabled early warning systems

- AI for agriculture & water management

- National climate data platform

- Ethical & inclusive AI governance

Institutional Arrangements

- AI–Climate Steering Committee
- Ministry of Environment & DMC leadership
- DEA / GovTech integration
- Academia & private sector participation

Financing & Implementation

- Climate finance (GCF, Adaptation Fund)
- Public–private partnerships
- Pilot-to-scale approach
- Priority vulnerable regions

Expected Outcomes

- Reduced disaster losses
- Improved food security
- Better climate-informed decisions
- Stronger national AI capacity

Decision Requested: Way Forward

- Endorse AI integration for climate action

- Approve institutional & data mechanisms

- Direct pilot implementation & financing

Thank You