Digital Technologies for Advancing Food Security, Climate Action and Environmental Sustainability

Southeast Asia Department, ADB
ADB Strategy 2030

STRATEGY 2030 VISION
PROSPEROUS INCLUDE INCLUSIVE RESILIENT SUSTAINABLE
ASIA AND THE PACIFIC

ADB’S VALUE ADDITION AS TRUSTED DEVELOPMENT PARTNER
Finance
Knowledge
Partnerships

Using country-focused approach
Providing integrated solutions

Promoting sustainable development

Promoting innovative technology

ADB’S GUIDING PRINCIPLES
STRATEGY 2030’S SEVEN OPERATIONAL PRIORITIES

- Addressing remaining poverty and reducing inequalities
- Accelerating progress in gender equality
- Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability
- Making cities more livable

- Promoting rural development and food security
- Strengthening governance and institutional capacity
- Fostering regional cooperation and integration
Technology Context in OP3: Tackling Climate Change, Building Climate and Disaster Resilience and Enhancing Environmental Sustainability

- Facilitate DMCs’ access to cleaner and smarter technologies; greater engagement with the private sector, and support for innovative PPPs
- Improve environmental management, including efforts to improve air and water quality
- Strengthen eco-sensitive project planning and design to prevent ecosystem degradation and mitigate pollution impacts

Targets:

- 75% of the number of ADB’s committed operations (on a 3-year rolling average, including both sovereign and non-sovereign operations) will support climate change mitigation and adaptation by 2030.
- Climate finance from ADB’s own resources will reach $80 billion cumulatively from 2019 to 2030
Pilot Asia-Pacific Climate Technology Network and Finance Center: ADB-UNEP Collaboration

Center’s objective - To accelerate access to climate mitigation and adaptation technologies

- Facilitating Technology Network
- Building Technology Centers
- Enabling Policies
- Technology Mainstreaming
- Catalyzing Project & Venture Capital Investments
- Pilot Marketplace for Low-Carbon Technologies

Network Facilitation and Development
Enhancing Enabling Environment
Investment Facilitation
Capacity Building
Technology Context in OP5: Rural Development and Food Security

- Promote the adoption of advanced technologies such as satellite- and drone-assisted applications to increase irrigation efficiency and to ensure the sustainable use of land and water resources
- Use Information and Communication Technologies to improve food traceability and tracking
- Promote the use of climate-smart agriculture technologies and improve natural resource management standards
- Enhance connectivity and mobility between rural and urban areas
- Reduce postharvest losses and promote agricultural value addition
Technology Context in OP7: Regional Cooperation and Integration

- Increase technology support for regional public goods and collective actions to mitigate cross-border risks pertaining to climate change, environmental pollution, energy and water security.

- Facilitate knowledge sharing and collaboration between subregions - GMS, CAREC, SASEC etc.
Range of Technologies

- Artificial Intelligence
- Internet of Things
- Blockchain technologies
- Drone technology and photogrammetry visualization
- Satellite technologies
- Data analytics (to measure a project’s performance from resource consumption to carbon, from structural design to environmental impact)
- Augmented reality (to improve regulatory, consenting and stakeholder engagement processes)
PwC identified 80 ways in which AI technologies could be used to benefit agriculture and the environment.
Objectives of the Workshop

**Overall objective:**
- To determine **critical areas for support** to the GMS countries in harnessing the digital technologies for sustainable development

**Specific Objectives:**
- To assess current **status of application** of digital technologies in four areas:
  1. Sustainable agriculture
  2. Food traceability
  3. Climate action (mitigation and adaptation)
  4. Environmental sustainability
- To solicit views from the representatives of the **government, private sector, development partners and academia** on most appropriate technologies, needs and gaps, and future priorities for action in the GMS
- To identify opportunities for **public-private partnerships** in deployment of digital technologies in the GMS