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# THEMATIC SESSION: Climate Change

## Climate Change and Sustainable Development Department

Declan Magee



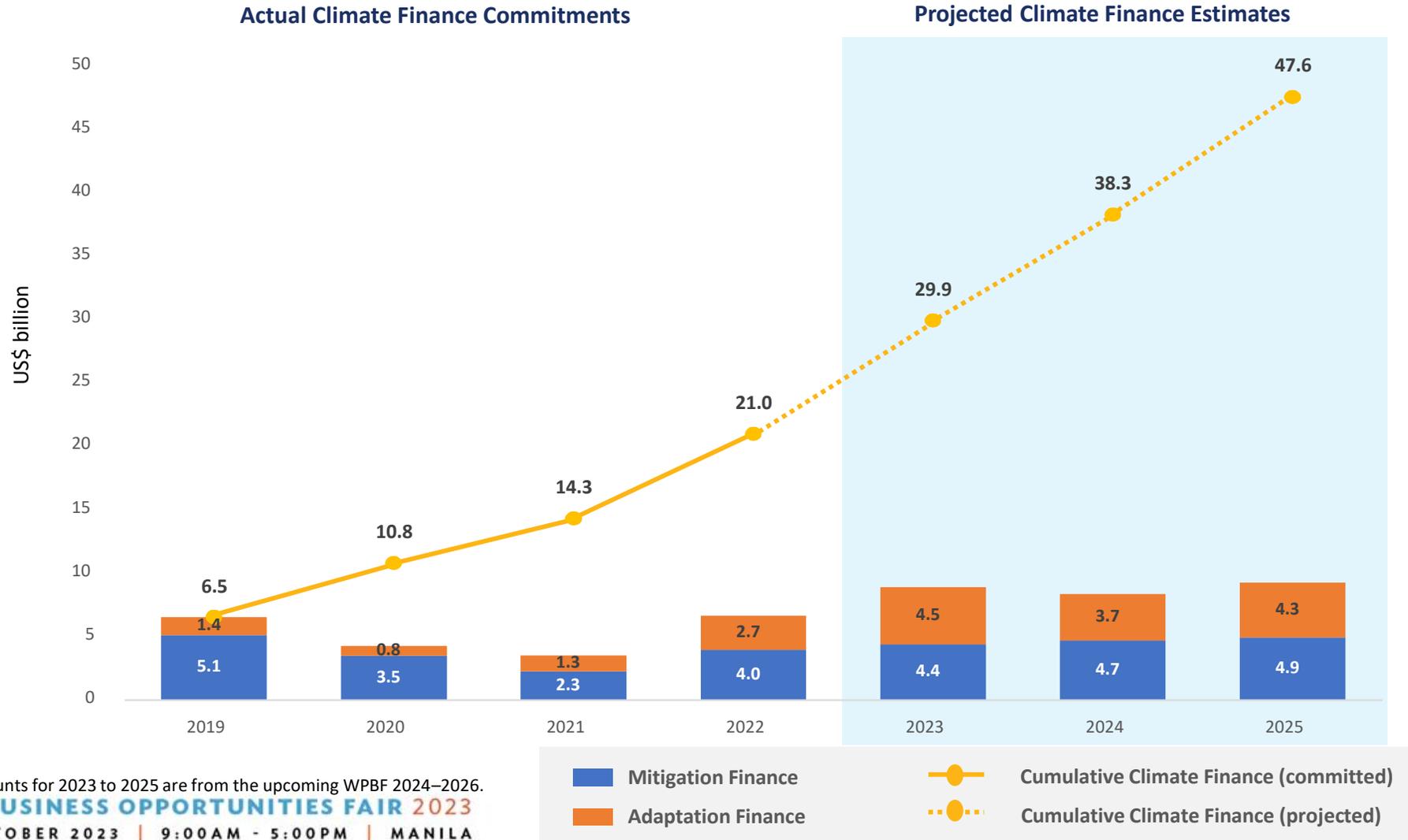
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# Large increase in ADB's Climate Finance up to 2030



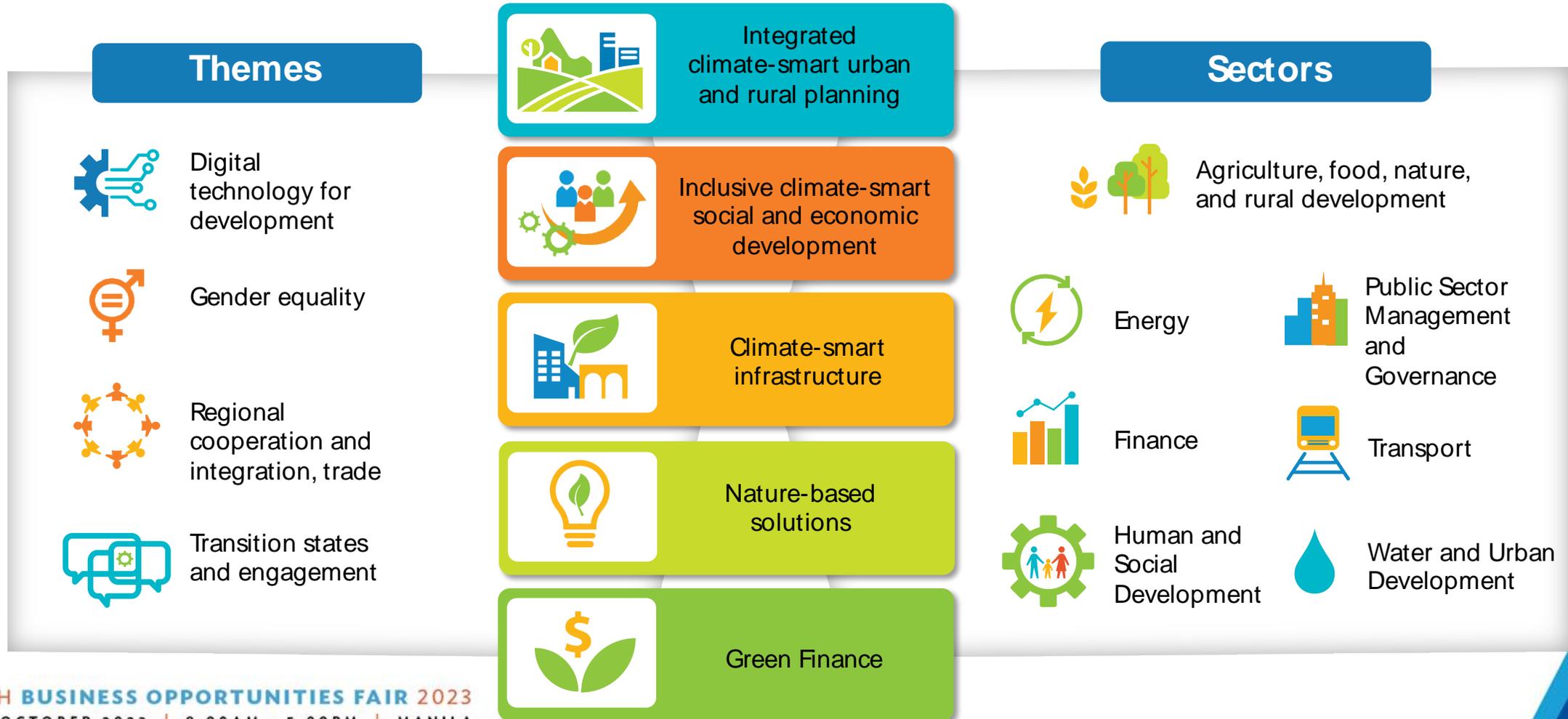
- In 2021, ADB announced its ambition to deliver **\$100 billion** in cumulative climate finance from ADB's own resources from 2019-2030, including \$34 billion dedicated to adaptation and resilience.



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# Climate solutions often multi-dimensional and will need significant creativity and innovation

## INTERVENTION AREAS FOR CLIMATE ACTION



# Bangladesh: Climate and Disaster Resilient Small-Scale Water Resources Management Project

TOTAL FINANCING: \$225.0 million  
DATE OF APPROVAL: 19 September 2023

## OUTCOME

**Climate- and disaster-resilient agricultural productivity and profitability in selected geographic areas increased**

## OUTPUTS

- ❖ Participatory subproject development and management improved
- ❖ Small-scale water resources infrastructure with climate and disaster resilient features developed or enhanced
- ❖ Agribusinesses enhanced at the upazila (subdistrict) and water management cooperative association levels, and vulnerable people's livelihoods supported

## INNOVATIVE ELEMENTS

(i) modern pump-pipe irrigation systems; (ii) nature-based solutions to stabilize steeper embankments; (iii) use of drones for surveys, crop monitoring, and precision agriculture; and (iv) an improved asset management system

## Vision:

- ❖ Sustainable and inclusive development resilient to disaster and climate change achieved

## Objectives/Aims:

- ❖ Emphasize the importance of modernizing flood and drought risk management, drainage improvement, and irrigation systems
- ❖ Enhance the climate and disaster resilience of small-scale water resources (SSWR) infrastructures and services
- ❖ Improve agricultural productivity and profitability through effective, participatory, and sustainable SSWR management in the selected project locations



# Bangladesh: Climate and Disaster Resilient Small-Scale Water Resources Management Project

## Key Experts:

### Consulting firms/NGOs:

- Project implementation support
- Project-based professional staff
- To support:
  - (i) subproject agribusiness, aquaculture and women's development and livelihoods;
  - (ii) management information system upgrade and roll out;
  - (iii) baseline and impact monitoring; and
  - iv) market assessment study for 10 commodities

## Key Activities:

### Project Implementation Support Consultant

- (i) Task 1: Project Implementation Support
- (ii) Task 2: Subproject Development Support
- (iii) Task 3: Resources Management

### Project-based Professional Staff

- Participatory rural appraisals
- Geotechnical investigations
- Topographic surveys
- NGO services for folk drama events
- Market assessment study for 10 commodities (covering rice, grains, legumes, vegetables, and aquaculture)
- NGO services for agribusiness development and women's livelihoods

For further details, please refer to:  
<https://www.adb.org/projects/53237-001/main>



# India : Early Childhood Development in Meghalaya Project

TOTAL FINANCING: \$55.77 million  
DATE OF APPROVAL: 15 August 2023

## OUTCOME

Access to quality and age-appropriate childcare and maternal mental health care improved

## OUTPUTS

- ❖ Home-based ECD services for children aged 0–1.5 years improved, and maternal mental health services introduced
- ❖ Center-based ECD services for children aged 1.5–6 years strengthened, and parenting support established
- ❖ Institutional capacity for ECD research and training improved

## INNOVATIVE ELEMENTS

ECD educators for social accountability and women's empowerment, group-based parenting programs, extension of CBC for children aged 1.5–3 years, climate resilience of facility design and service provision, improvement of SNP nutrient adequacy, and provision of age-appropriate GESI-responsive guidelines and training curricula

## Vision:

- ❖ Early childhood growth and development and maternal mental health in Meghalaya improved

## Objective/Aim:

- ❖ Help Meghalaya ensure that children aged 0–6 years receive nurturing care for their growth and development



# India : Early Childhood Development in Meghalaya Project

## Key Experts:

### Consulting firms for:

- Curriculum development for 0-6 year old children & ECD card
- Training and capacity building for growth monitoring
- Information technology and app development
- HR management system
- Technical agency for training and implementation of day care center

### Individual consultants for:

- Project management unit core staff consultants (financial management, human resources, procurement, engineering, IT, gender, environment, training and knowledge management)

## Key Activities:

- (i) Support the GESI-responsive, home-based young childcare program that enhances the continuity of care for children aged 0–1.5 years
- (ii) Support the inclusion of eggs (nutrient-dense food) for 2 days per week to existing supplementary nutrition programs
- (iii) Provide materials and supplies to upgrade about 1800 existing rural childcare centers (AWCs) and construction of nearly 600 new AWCs in hard-to-reach areas
- (iv) Improve the AWCs' GESI responsiveness and resilience against disaster and climate change risks
- (v) Improve the ECD cadre's pre- and in-service training (modality and frequency) to enhance the quality of ECD services
- (vi) Set up a new state resource center for the developing child (SRCDC) as a center of excellence for ECD

For further details, please refer to:  
<https://www.adb.org/projects/55350-001/main>



# Luganville Urban Water and Sanitation Project

TOTAL FINANCING: \$14.5 million  
DATE OF APPROVAL: Q1 2024

## OUTCOME

Improve access to integrated and resilient urban water supply and sanitation (WSS) services in greater Luganville, Vanuatu.

## OUTPUTS

- ❖ Improved water supply services,
- ❖ Improved sanitation and hygiene, and
- ❖ Capacity and resilience in urban service delivery is improved

## INNOVATIVE ELEMENTS

New emergency shelters will serve as multipurpose buildings for the surrounding communities during non-emergency times to promote viability of facility.

## Vision:

- ❖ Luganville has a vibrant, resilient, and inclusive economy.  
*(Vanuatu 2030 and Sanma Provincial Government Council Luganville Municipality)*

## Objectives/Aims:

- ❖ Improve access to integrated and resilient urban water supply and sanitation services in greater Luganville.



# Luganville Urban Water and Sanitation Project

## Key Experts:

**Project Implementation Unit (TBD)**

## Key Activities:

- (i) Define water supply standards and targets, Water Supply Master Plan.
- (ii) Undertake urban water reform and NRW study.
- (iii) Upgrade water network infrastructure.
- (iv) Audit septic tank operation and maintenance.
- (v) Develop contracts for septage handling by private sector.
- (vi) Enhance toilets and handwashing facilities in schools and community facilities.
- (vii) Establish asset registers for water and sanitation sector.
- (viii) Conduct regulatory review for cost recovery.
- (ix) Review Luganville Integrated Urban Development Plan for investment planning.
- (x) Update Town Plan for Greater Luganville.



# Kiribati: South Tarawa Renewable Energy Project (Ph 2)

**TOTAL FINANCING: \$38.5 million**  
**DATE OF APPROVAL: Q4 2023**

## OUTCOME

Generation and utilization of climate-adapted renewable energy in South Tarawa increased.

## OUTPUTS

- ❖ Climate-resilient floating solar photovoltaic (FPV), battery energy storage system (BESS), and grid infrastructure installed.
- ❖ Adaptive low-carbon productive use of energy infrastructure installed.

## INNOVATIVE ELEMENTS

Climate-adapted and efficient floating PV (FPV) for power generation and channeled directly for productive uses of energy (PUE) to address multiple challenges.

## Vision:

- ❖ A sustainable, accessible energy system which lowers vulnerability and provides enables diverse adaptation pathways to climate impacts in Kiribati.

## Objectives/Aims:

- ❖ Install sustainable energy supply that provides a basis for
  - ❖ sustainable food and water supplies;
  - ❖ reliable education facilities;
  - ❖ reliable health care facilities;
  - ❖ low-carbon transport; and
  - ❖ other innovative end-use technologies and applications.



# Kiribati: South Tarawa Renewable Energy Project (Ph 2)

## Key Experts:

### Project Management Unit

1. Project Manager
2. Environmental Safeguards Officer
3. Social Safeguards Officer
4. Gender Officer
5. Project Accountant

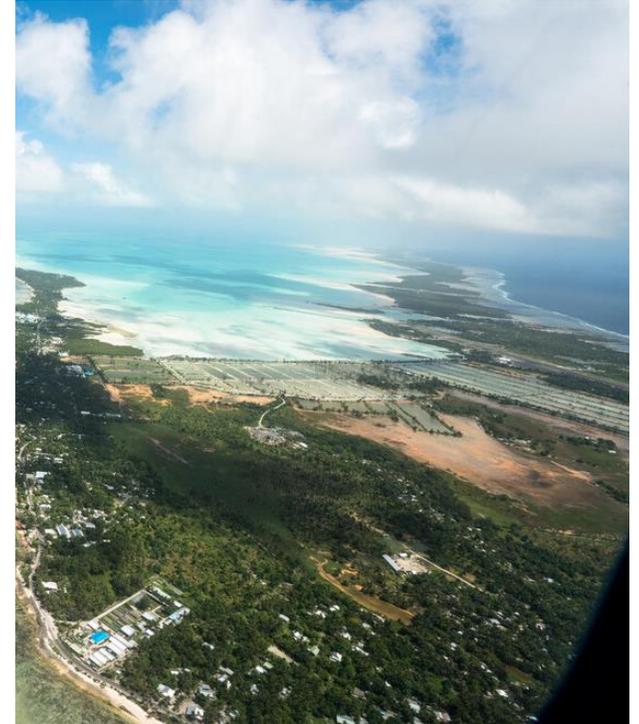
### Project Implementation

#### Consultants

1. Power/FPV Expert [Team Leader]
2. Transmission and power systems expert
3. BESS and Grid Integration Specialist
4. Legal/Regulatory Specialist
5. Marine ecologist

## Key Activities:

- (i) Install floating PV: 4 MWac/5 MWp, east of Betio port, next to the Marine Training Centre, including an electric boat for the O&M of the FPV system;
- (ii) Install ground-mounted PV: 3 MWac/3.75 MWp, in the Bonriki water reserve, with BESS of 5MVA/10MWh, next to the STREP BESS; and
- (iii) Install around 30 km of 33 kV, underground and overhead, transmission and distribution system in the South Tarawa grid from Bonriki to Bikinibeu and Betio, including all related grid integration and control systems as well as streetlighting and other safety features.
- (iv) Install two EV charging stations and plant to support PUB O&M works, and
- (v) Implement coastal protection and disaster risk management measures, including electric reef-regeneration.



# Kyrgyz Republic: Landslide Risk Management Sector Project

TOTAL FINANCING: \$39 million

DATE OF APPROVAL: 15 July 2021

## OUTCOME

Vulnerability and exposure of communities and infrastructure to landslide events reduced.

## OUTPUTS

- ❖ Landslide mitigation engineering measures implemented
- ❖ Systems for on-site and national landslide monitoring improved
- ❖ Capacity for landslide risk management strengthened

## INNOVATIVE ELEMENTS

Comprehensive approach for landslide risk management combining structural and non-structural (strategy development, training, and analysis of high-risk areas) interventions.

## Vision:

- ❖ Human and material loss from climate- and geophysical-related disasters reduced
- ❖ Level of protection of population and territories from emergency situations increased for sustainable development

## Objective/Aim:

- ❖ The exposure of at-risk communities to landslides will be reduced through mitigation engineering measures in subprojects which will incorporate considerations for future climate change.
- ❖ The project will establish an integrated risk-based multilevel landslide monitoring system which will combine on-site monitoring and a pilot national landslide monitoring approach using satellite-based interferometric synthetic aperture radar (InSAR).



# Kyrgyz Republic: Landslide Risk Management Sector Project

## Key Procurement:

### Consulting firms for:

1. Landslide monitoring system for early warning
2. Civil works for landslide risk management subprojects

## Key Activities:

- (i) Establishment of integrated risk-based multilevel landslide monitoring system. It will combine on-site monitoring and a pilot national landslide monitoring approach using satellite-based interferometric synthetic aperture radar (InSAR). The integrated system will be linked to the existing national early warning system and the network of crisis management centers.
- (ii) The exposure of at-risk communities to landslides will be reduced through mitigation engineering measures in about 8-9 subprojects incorporating nature-based solutions, climate change, and timber retaining and drainage structures. These include unloading soil overburden, reshaping bulging or cracked areas on hillsides, and draining underground and surface water.

For further details, please refer to:  
<https://www.adb.org/projects/53022-001/main>



# Thank You!



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