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Regional Resource Centre for
Asia and the Pacific



The 5th International Climate Change Adaptation Platforms Meeting
AP-PLAT Plenary Meeting

28th October 2024, Research Building II, Medium Conference Room, NIES, Tsukuba, Japan

Green Climate Fund Activities

Dr. Ramesh Soysa

Head of Climate Change Cluster



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Regional Resource Centre for
Asia and the Pacific

3rd Floor, Outreach Building, AIT
Klong Luang, Km. 42, Pathumthani, Thailand 12120
www.rrcap.ait.ac.th | Facebook | Twitter

Introduction to Green Climate Fund



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Introduction to the GCF

<https://www.greenclimate.fund>



Green Climate Fund (GCF) is a global initiative that **finances climate action projects in developing countries** to reduce emissions and adapt to climate change impacts.

The overarching objective of the GCF is to achieve a paradigm shift towards **low-carbon and climate resilient** development pathways. This requires ambition, in the design of funded activities and in the provision of financial resources to the GCF.

About GCF



- The world's largest dedicated climate fund

**272
Projects**



- Set up by the UNFCCC, and serving the Paris Agreement

**1 Billion
People with
Increased
Resilience**

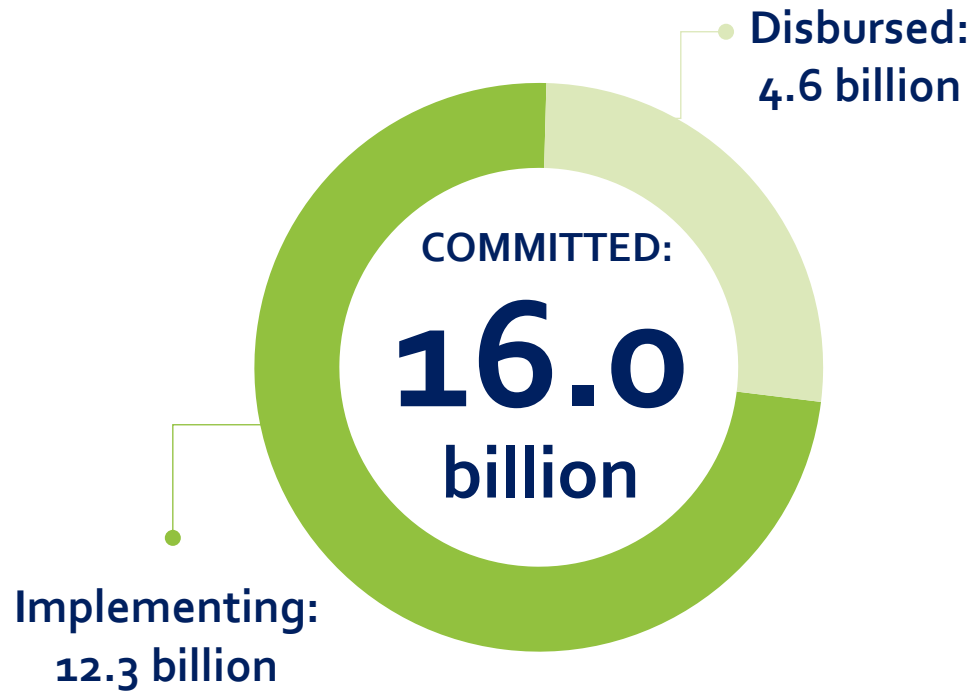


- Supporting developing countries to transition to low-emission, climate-resilient societies

**3.1 Billion
tonnes of
CO₂ equiv.
avoided**

GCF in Figures (USD)

TOTAL GCF PORTFOLIO COMMITMENT



PORTFOLIO VALUE, INCLUDING CO-FINANCING:

61.5
billion

GCF Areas of Focus

Mitigation
(for Emission Reduction)

Reduced Emissions from:



Energy generation
and access



Transport



Buildings, cities,
industries and
appliances



Forests and
land use

Adaptation
(to Climate Impacts)

Increased Resilience of:



Livelihoods of people
and communities



Health, food and
water security

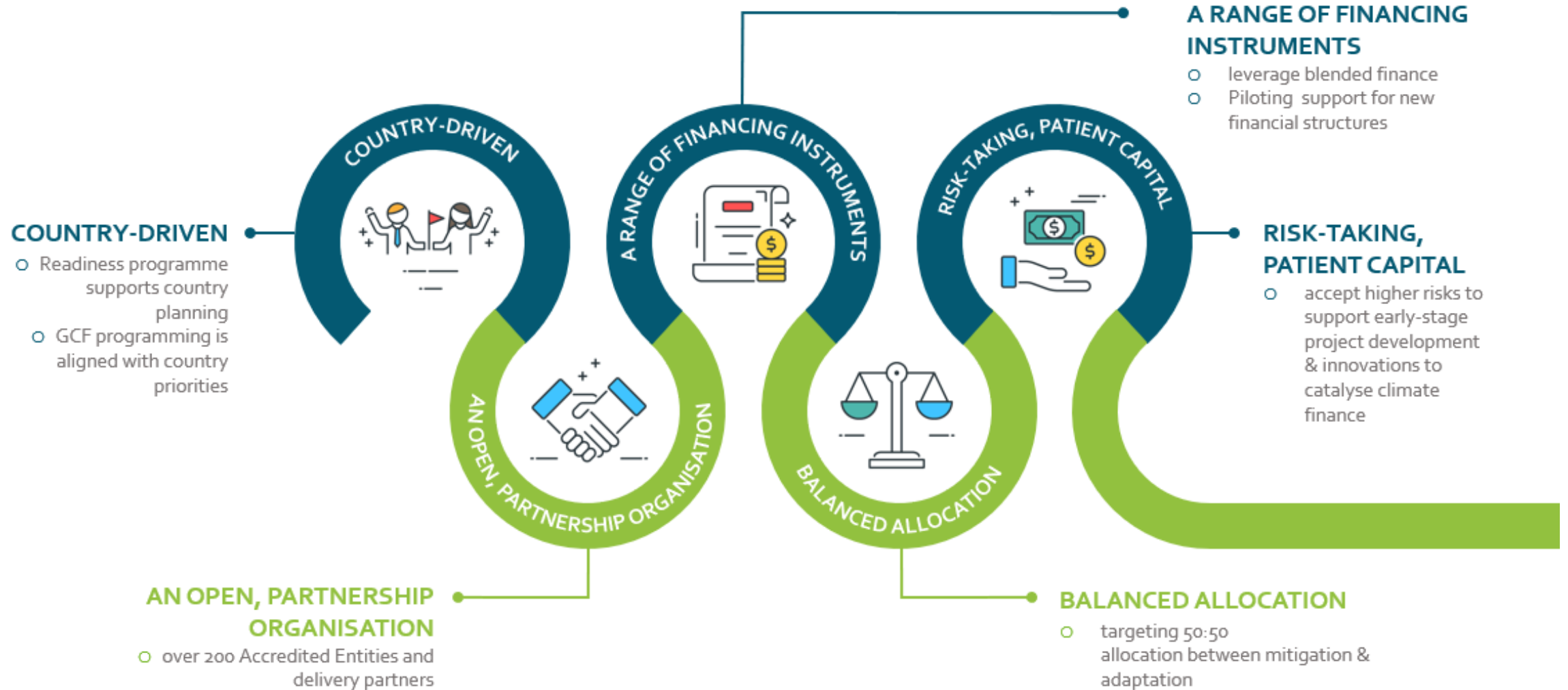


Infrastructure and
the built environment



Ecosystems and
ecosystem services

How GCF work



How GCF Invest

Additionality of GCF Funding

Why GCF?

Projects should crowd-in additional financing on top of GCF whenever possible

Projects should have scale-up potential

Can support incremental cost of making a project climate proof

Aligned to GCF's Six Investment Criteria

Country-Driven Approach

Alignment with NDCs and other relevant country strategies

Early country engagement

Stakeholder driven

Strong Climate Science Basis

Climate impact of investment is key

Scientific evidence should be provided

Paradigm Shifting Idea

Context-driven

Changes market, behavior, or other aspect(s)

Private Sector Involvement

Leverage private sector involvement if possible

Projects should provide appropriate concessionality and de-risking opportunities

Use a flexible range of instruments



Loans



Guarantees



Equity



Grants

GCF Investment Framework



GCF Readiness Program

- Objective 1: Capacity Building
(NDAs, DAEs, key stakeholders)
- Objective 2: Strategic Frameworks
(Low emission development policies, strategies & mechanisms to plan for and scale of CF)
- Objective 3: NAP and Adaptation Planning Process
(Strengthened AP, governance and data to drive national, sub-national, sectoral AP processes)
- Objective 4: Pipeline Development
(Paradigm shifting pipeline development)
- Objective 5: Knowledge Sharing and Learning

USD 1 million

cap per country per year

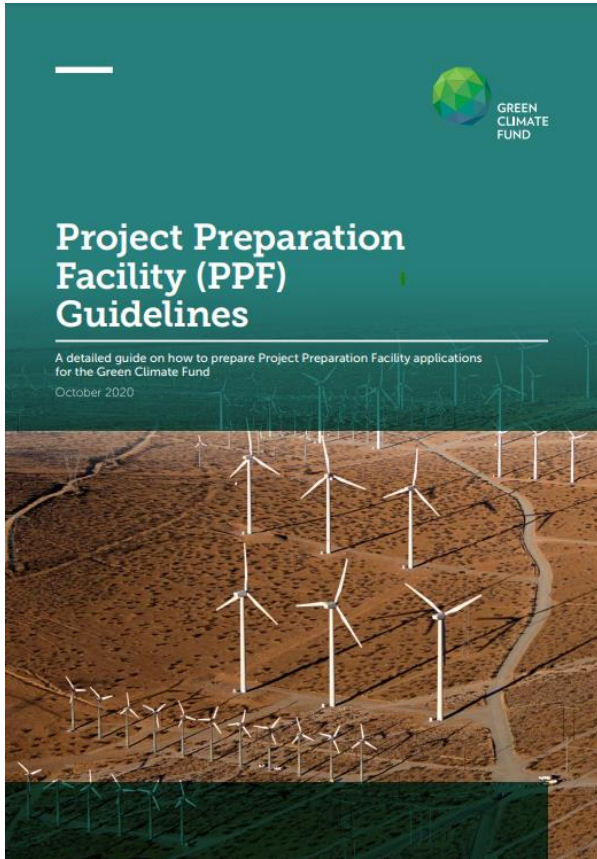
Objectives 1, 2, 4, 5

USD 3 million

cap per country

NAP / adaptation
planning processes

Project Preparation Facility

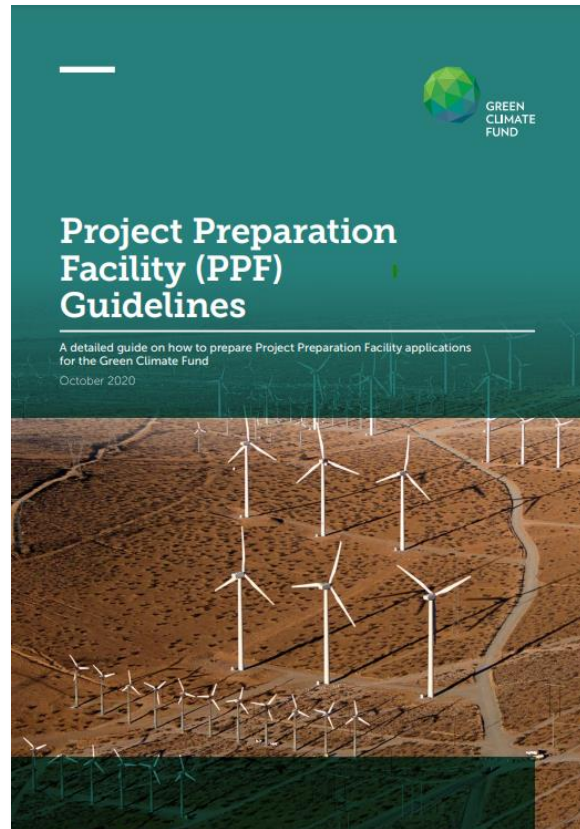


Supports project and programme preparation requests from all accredited entities, especially direct access entities, especially for projects in the micro-to-small size category. Decision B.11/11

Maximum amount of USD 1.5 million per proposal Decision B.13/21

Funding proposals developed with PPF resources should be submitted to the Board within two years of the approval of a PPF request unless sufficient justification for an extension is provided Decision B.13/21

Project Preparation Facility



Eligible activities

Pre-feasibility & feasibility studies, as well as project design

Environmental, social & gender studies

Risk Assessments

Identification of programme/project-level indicators

Pre-contract services, including revision of tender documents

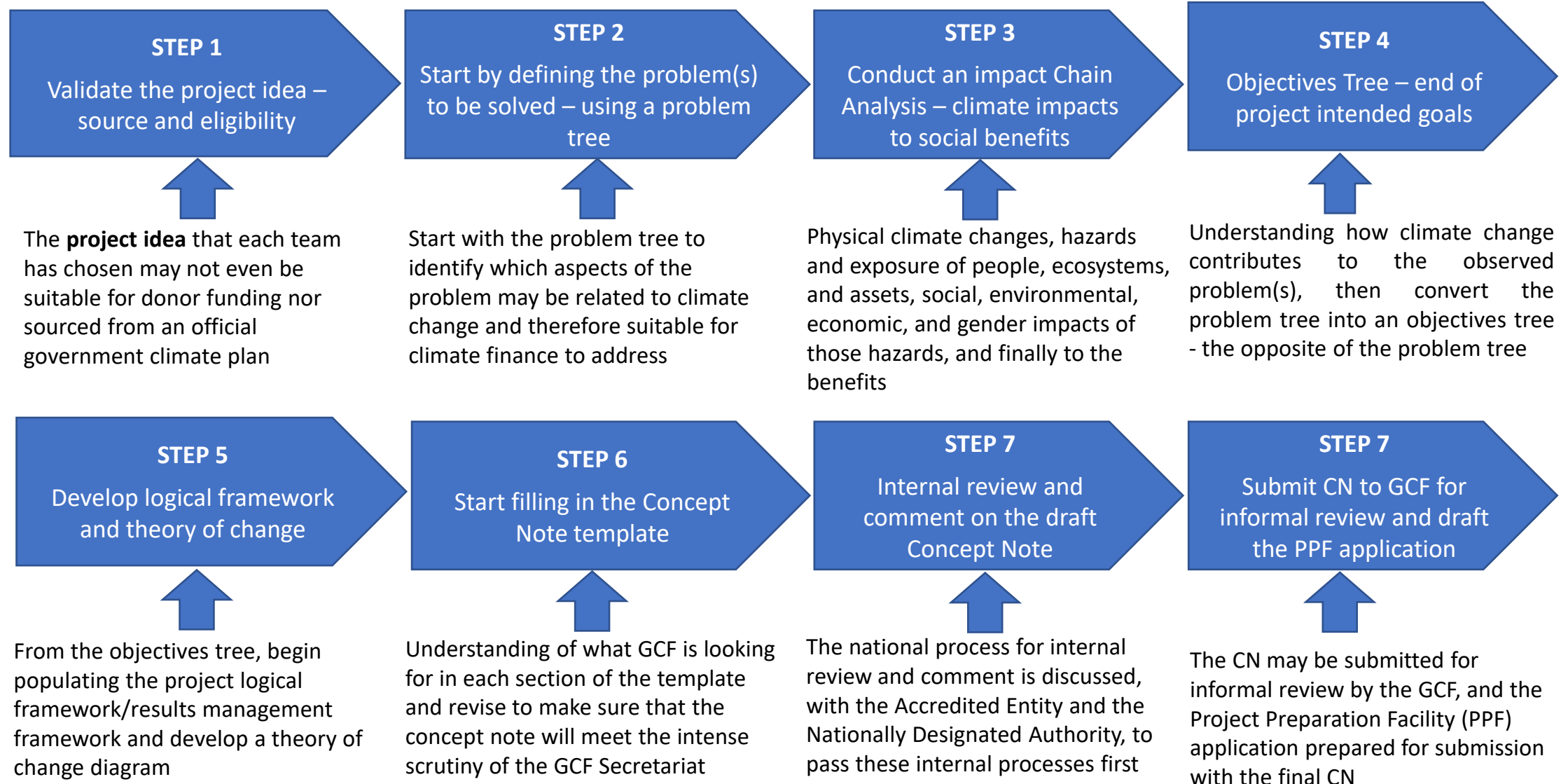
Advisory services and/or other services to financially structure a proposed activity

Other project preparation activities

The GCF Project Cycle



Steps for GCF Concept Note Development



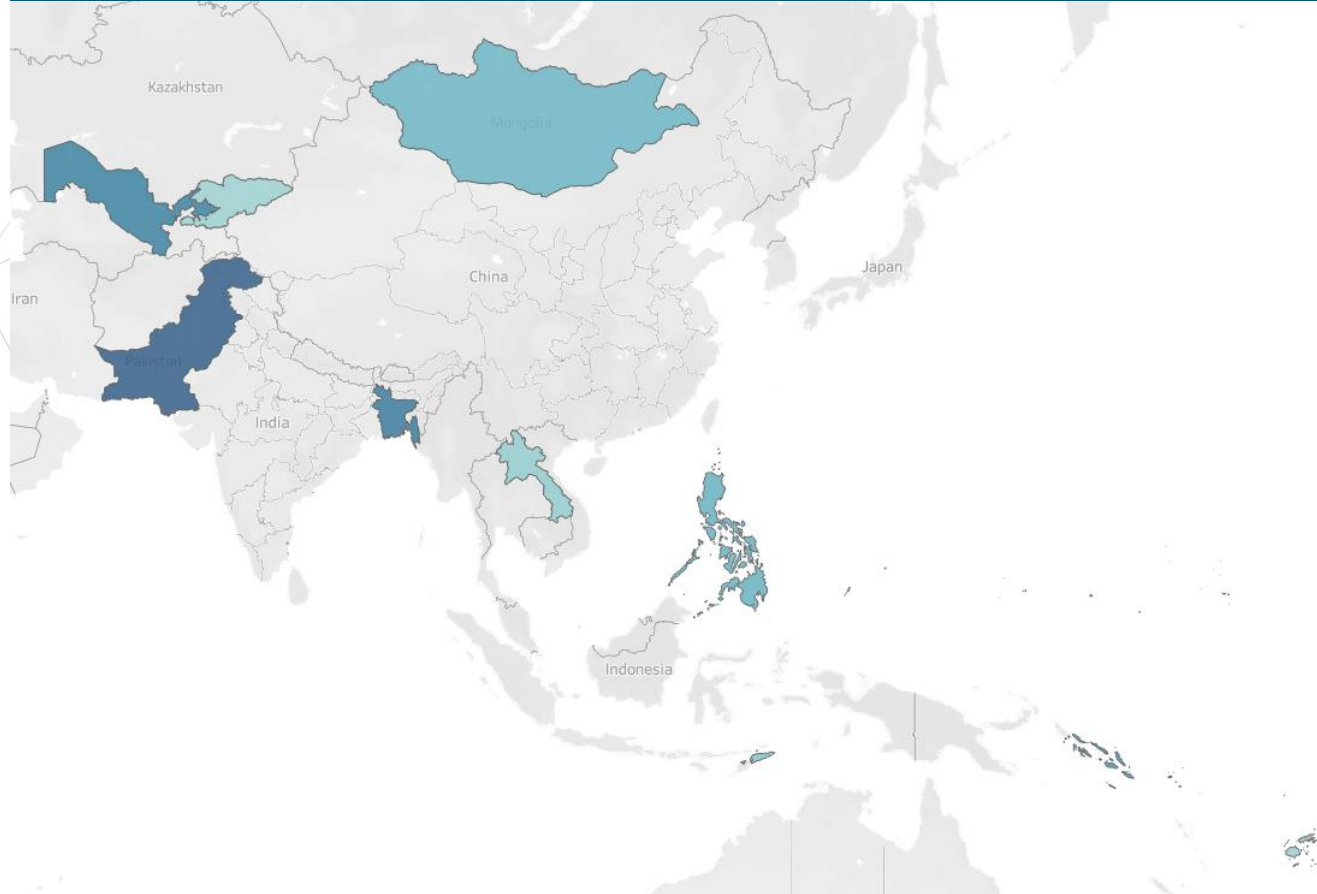
SAP Portfolio overview - Asia

17
Approved

USD 212M
GCF funding

USD 149M
Co-financing

57%
DAEs



Sector	Country	Project Name	Theme
Private	Fiji	Fiji Agrophotovoltaic Project in Ovalau	Mitigation
	Mongolia	Energy Efficient Consumption Loan Programme	Mitigation
	Pakistan	Pakistan Distributed Solar Project	Mitigation
Public	Bahrain	Enhancing climate resilience of the water sector in Bahrain	Adaptation
	Bangladesh	Extended Community Climate Change Project-Drought (ECCCP-Drought)	Adaptation
		Extended Community Climate Change Project-Flood (ECCCP-Flood)	Adaptation
	Kyrgyzstan	Climate services and diversification of climate sensitive livelihoods to empower food insecure and vulnerable communities in the Kyrgyz Republic.	Adaptation
	Lao People's Democratic Republic (the)	Building resilience of urban populations with ecosystem-based solutions in Lao PDR	Adaptation
	Marshall Islands	Ecosystem-based Adaptation (EbA) for Reducing Community Vulnerability to Climate Change in Northern Pacific Small Island Developing States (SIDS)	Adaptation
	Micronesia (Federated States of)	Climate resilient food security for farming households across the Federated States of Micronesia (FSM)	Adaptation
		Ecosystem-based Adaptation (EbA) for Reducing Community Vulnerability to Climate Change in Northern Pacific Small Island Developing States (SIDS)	Adaptation
	Palau	Ecosystem-based Adaptation (EbA) for Reducing Community Vulnerability to Climate Change in Northern Pacific Small Island Developing States (SIDS)	Adaptation
	Philippines (the)	Multi-Hazard Impact-Based Forecasting and Early Warning System for the Philippines	Adaptation
	Solomon Islands	Solomon Islands Knowledge-Action-Sustainability for Resilient Villages (SOLKAS) Project	Adaptation
	Timor-Leste	Community-based Landscape Management for Enhanced Climate Resilience and Reduction of Deforestation in Critical Watersheds	Mitigation
Uzbekistan	Enhancing Multi-Hazard Early Warning System to increase resilience of Uzbekistan communities to climate change induced hazards	Adaptation	

Green Climate Fund Activities



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**GREEN
CLIMATE
FUND**

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Asian Institute of Technology Regional Resource Centre for AP



Services

Climate Change Thematic Areas



Capacity building

- Comprehensive Training Programmes
- Mentoring and Post-training Follow-up



Knowledge sharing

- Development of Knowledge Products
- Dialogue (Webinars, Side-events, etc)
- Technical and Policy Advice



Technical Services

- Programme/project design
- Technical Consultancies
- Programme/project implementation



Accessing Climate Finance

- Project Conceptualization & Design



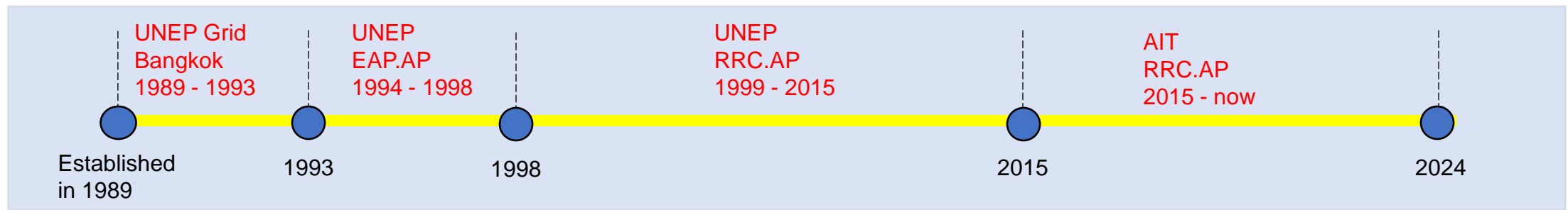
Adaptation Planning and Disaster Risk Reduction

- Resilience Planning for Cities and communities
- Climate data downscaling
- Technical and Policy Advice



Mitigation Empowerment

- Youth-led renewable energy applications
- Feasibility studies & EIA
- Research and Technology assessments



Introduction to the Climate Change Cluster

Asian Institute of Technology, Regional Resource Centre for Asia and the Pacific



Formulation of Concept Note and City Resilience Training Programmes



ADAPTATION FUND

AIT Listed in AF Network of Providers of Readiness Support for Adaptation



AIT Listed in GCF Framework for Communities of Practice



YEA Youth Energy Academy 1st YEA in ASIA



Downscaling software improved and installed



FloodS tool introduced for adaptation planning



Climate Change Adaptation Platform Meeting

2016

Climate data downscaling workshops introduced



2018

Continued refinement of training approach and methodology

2020

2022

Climate Change Adaptation Tools Regional Training

2024

Networks and Initiatives engaged:

- Adaptation Research Alliance
- MCR 2030 Campaign
- Asia-Pacific Adaptation Information Platform (AP-PLAT)
- Providers of Readiness Support for Adaptation for **Adaptation Fund Secretariat, CTCN, GCF, GCF-NDA** and **PCCB**



Wider reach in Asia and the Pacific

- Continued engagement of Regional Workshops
- Continued engagement of Youth

Strengthen national and local-level support

- Climate Data Downscaling and field applications
- E-learning on climate change related issues
- GCF Concept Note Development
- Diversify capacity building efforts
- Support project implementation – Management and Technical Support

Activities Concluded on Green Climate Fund

- Regional Training Workshop on Developing Green Climate Fund Proposals for PSIDS. Nadi, Fiji. June, 2024. **RTW**
- National Training Workshop on Developing Green Climate Fund Proposals for Indonesia. Jakarta, Indonesia. June 2023. **NTW**
- GCF Online Mentoring Session: GCF Concept Note Development Gorontalo Province, Indonesia.
- GCF Online Readiness Mentoring Session: GCF Readiness Proposal Mongolia.

Regional Training Workshop on Developing Concept Notes for the Green Climate Fund: Strengthening Climate Resilience in Pacific Small Islands Developing States

17th – 21st June 2024, Bangkok Thailand



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The 5-day workshop supports key stakeholders that are involved in the **design** and **development** of **GCF Concept Notes** for their respective **regions/countries/islands/sectors**, with necessary procedures and processes, via **strengthening their capacities** and introducing them to **practical and internationally tested models, methodology, and tools**.

20 participants from **7 countries** from the Pacific Islands of Fiji, Kiribati, Papua New Guinea, Niue, Solomon Islands, Tonga, Tuvalu.

7 GCF Concept Notes from **7 countries** were carefully developed for the Pacific Islands States included presentations, lectures, group exercises, hands-on trainings, one-on-one sessions, review sessions, sharing of relevant documentation, and sharing of relevant climate adaptation tools. This enabled the participants to successfully develop concept notes for their respective countries, that had their respective thematic areas such as water and sanitation, sustainable development infrastructure, enhancing local livelihoods, and ecosystem restoration and rehabilitation.



Training Workshop on Developing Concept Notes for the Green Climate Fund: Urban Climate Resilience in Indonesia

12th – 16th June 2023, Jambuluwuk Thamrin Hotel, Jakarta, Indonesia



5-day workshop supports key stakeholders in Indonesia to enhance abilities to access climate finance flows for vulnerable localities facing climate risks, strengthen the know how and processes to access GCF climate finance and to bridge and strengthen networks among multisectoral practitioners through partnerships in meeting common goals on resilience building.



25 participants from **4 Concept Note Teams** from the Islands of Indonesia.

4 GCF Concept Notes chosen nationally were carefully developed for Indonesia under the GCF NDA guidance included presentations, lectures, group exercises, hands-on trainings, one-on-one sessions, review sessions, sharing of relevant documentation, and sharing of relevant climate adaptation tools. This enabled the participants to successfully develop concept notes for Indonesia, that had their respective thematic areas such as health and sanitation, empowering vulnerable communities, enhancing local livelihoods, and ecosystem restoration and rehabilitation.

GCF Online Mentoring Session: GCF Concept Note Development Gorontalo Province, Indonesia

2.30 – 4.00 pm on 28th November 2023



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Strengthening Climate Resilience Through Strategic Agriculture Zone in Gorontalo District: Transforming Food Crops, Coconut and Livestock Industries

The Mentoring Session was convened online at 2.30 pm on 28 November 2023. It includes a short presentation focusing provision of a detailed set of general and specific sections of the CN practical feedback and recommendations for improvement followed by Q&A sessions, discussions and a joint review of each section of the CN and an explanation of each point of provided feedback to help with improvement of the specific sections and components of the CN.

An Expert Review Sheet for GCF Concept Note was provided to the client. The Concept Note was careful evaluation was made on the paradigm shift, co-financing, climate relevance, log framework and ToC was presented. The session includes six participants from the Indonesia country team members including the NDA, accredited entity - Kemitraan (Indonesia Partnership for Governance Reform), and other consortium partners responsible for drafting specific sections of the Concept Note including: Yayasan Rumah Energi (YRE); Lingkar Temu Kabupaten Lestari (LTKL); Conservation Strategy Fund (CSF);). Below please see the list of online Mentoring Session participants.

GCF Online Readiness Mentoring: GCF Readiness for Operationalizing Article 6 and Setting Carbon Market Framework in Mongolia

2.30 – 4.00 pm (Bangkok time) on 14 May 2024



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Green Climate Fund Readiness Proposal Review, Improvement Feedback Provision and Online Mentoring Session with Climate Change Research and Cooperation Center - Mongolia

The Mentoring Session was convened online at 2.30 pm on 28 November 2023. It includes a short presentation focusing provision of a detailed set of general and specific sections of the CN practical feedback and recommendations for improvement followed by Q&A sessions, discussions and a joint review of each section of the CN and an explanation of each point of provided feedback to help with improvement of the specific sections and components of the CN.

An Expert Review Sheet for GCF Concept Note was provided. The session includes six participants from the GCF Accredited Entity (AI) – the CCRCC-Mongolia country team members and experts including Choikhand Janchivlamdan (CCRCC Director); and six CCRCC Programme Staff and Experts.

Adaptation Tools for Science Based Solutions for AP-PLAT GCF Portal



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ClimoCast

CMIP6 Climate Projection Tool. ClimoCast enables you to see **future climate projections on the map**, it enables you to **compare climate scenarios** and **download the data**. It is a quick and easy access to project climate scenarios.

ClimoCast can answer in **two steps**: **how many degrees will temperature increase in my country, province and town?** **Where can I get this data?**

Examples that ClimoCast can answer are as follow:

1. **Quantification of Mitigation effect** - What is the difference in temperature increase between SSP126 (low emission) and SSP 370 (high emission).
2. **Identifying hotspots** - Where is the region of highest temperature?
3. **Identifying dry/wet spots** - Where is the region of highest drying/wetting?
4. **Identifying dry/wet season** - Which month will precipitation decrease or increase?

Tutorial Series of ClimoCast can be found on YouTube:

<https://www.youtube.com/playlist?list=PL9jaKxAv72lwlyjx4I1yD-DuzEjowzR2G>

<https://a-plat.nies.go.jp/ap-plat/cmip6/global.html>



The image shows a YouTube playlist for 'CLIMOCAST' by the channel 'CCCA'. The playlist contains 7 videos, with the first five listed. The video thumbnails show world maps and charts. The video titles and view counts are as follows:

Video Number	Video Title	Views	Time
1	Lesson 1: Climate Change Adaptation and Future Climate Projection	404 views	11:17
2	Lesson 2-1: Generating data from ClimoCast - Introduction	163 views	3:07
3	Lesson 2-2: Generating data from ClimoCast - Map mode	96 views	23:08
4	Lesson 2-3: Generating data from ClimoCast - Chart mode	44 views	12:07
5	Lesson 2-4: Generating data from ClimoCast - Conclusion	45 views	1:15

FloodS and DioVISTA

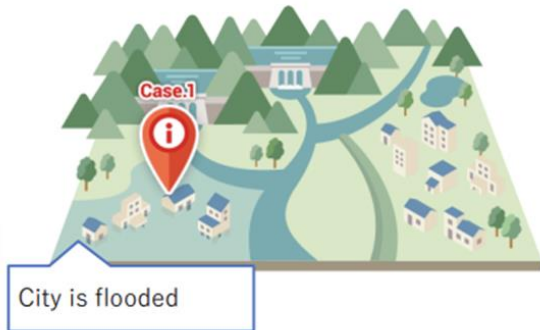
<https://top.floods.green/>

FloodS is a tool for flood hazard mapping and decision-making and occurrence of flood for adaptation and prevention. Developed by HITACHI Corp. Ltd, Japan with support from the Ministry of Environment, Japan (MoEJ). Service Provider, AIT RRC.AP. FloodS intends to develop flood simulation system with excellent usability and visibility. Used for Adaptation Planning, Disaster Risk Reduction, River Management, Urban Planning. It can measure water depths and flows, evaluation of counter measures such as embankments.

When you plan flood mitigation, you need flood simulation.

Case 1: without detention pond

Case 2: with detention pond



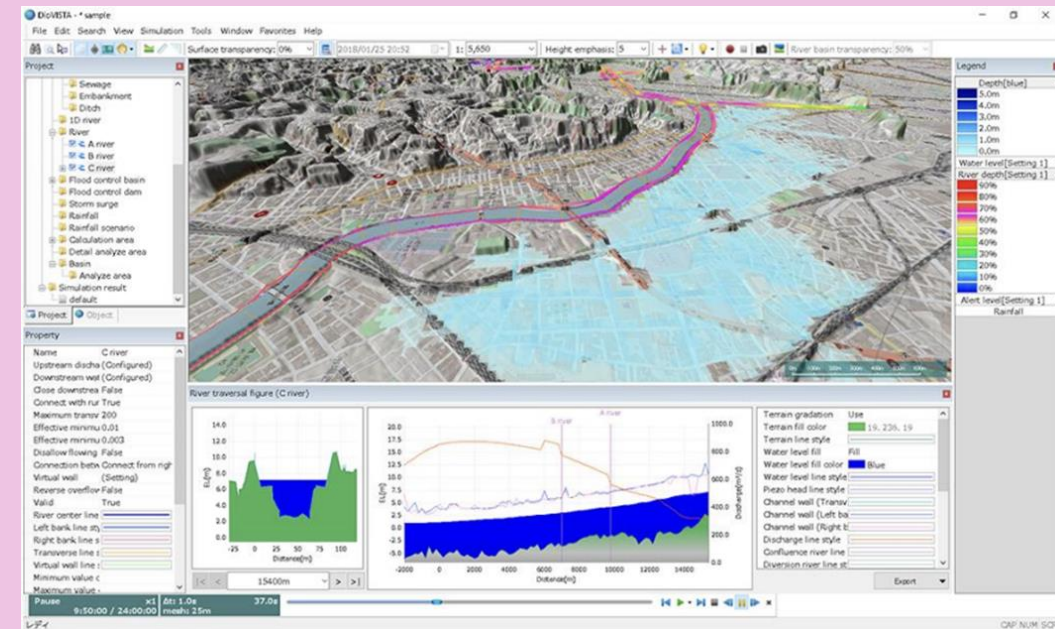
Helps mitigation planning by evaluating the effect of flood flow control measures (e.g., detention pond). Can simulate floods that have not occurred in the past.

Simulator by DioVISTA

FloodS uses a fast flood simulator
Provided by Hitachi Power Solutions as product
DioVISTA Flood.

DioVISTA is used for

- Flood hazard mapping by local governments
- Flood risk assessment by insurance companies
- Business continuity planning by private enterprises



S8DS

<https://ds02.rrcap.ait.ac.th/>

Web application based on Graphical User Interface (GUI) system.

Developed by Tsukuba University, Japan with support from the Ministry of Environment, Japan (MoEJ). User-friendly Platform (generate output by click and drag function).

S8DS requires only PC and internet, no pre-requisite of technical climate knowledge needed for use, minimum workload and is free and easy to access. S8DS bridges science-based solutions for everyone.

Basic features of S8DS

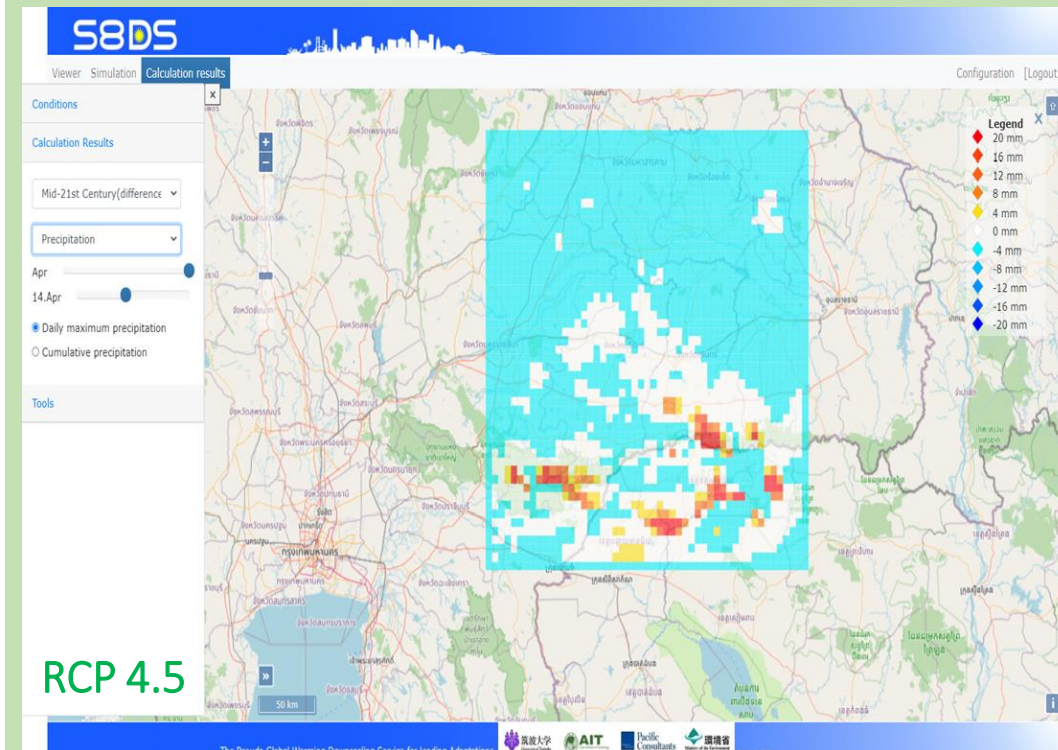
Method	Pseudo global warming method –dynamic downscaling
Baseline Data	Global Climate Model(GCM), Special Report on Emissions Scenarios (SRES), Representative Concentration Pathway (RCP) and Coupled Model Intercomparison Project (CMIP3 and CMIP5), Regional Climate Model (RCM).
Resolution	Between 1-10 km
Model Simulation Time	3-64 hours depending on the resolution and amount of data input
Prediction Parameters	Temperature, Precipitation, Wind Speed/Direction, Humidity, Solar Radiation (ShortWave), Sea Level Pressure
Additional Features	Considers impact of human activity on future climate such as land use change and energy use

Simulation Example for Precipitation in Buriram Province Thailand by 2050

The overall precipitation will be decreasing about 4 mm per day from base year.

The daily maximum precipitation in Buriram province at Mid 21st century of RCP 4.5 is projected to be **lower than current year in many areas.**

The decrease of rainfall might **affect rain-fed agricultures** which contributes to about **89% of livelihoods.**



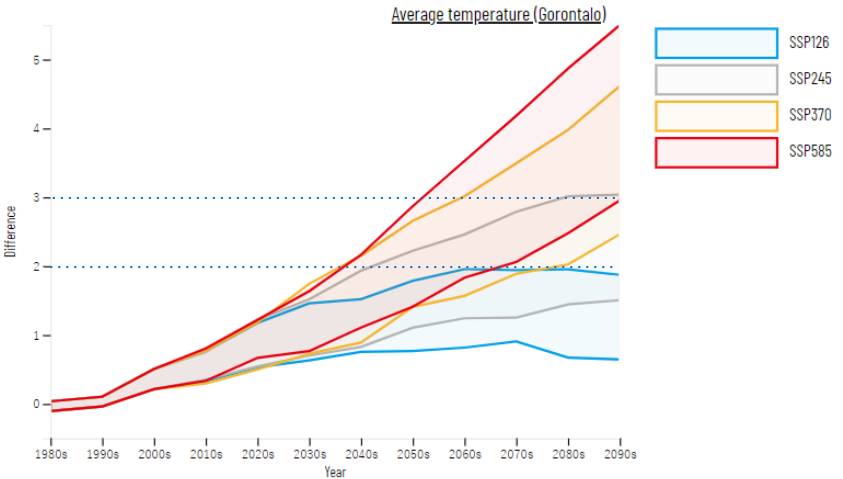
GCF Concept Note Development and GCF Concept Note Mentoring Session

Strengthening Climate Resilience Through Strategic Agriculture Zone in Gorontalo District: Transforming Food Crops, Coconut and Livestock Industries

GCF Concept Note Section B.1. Context & Background: Climate Vulnerabilities & Impacts



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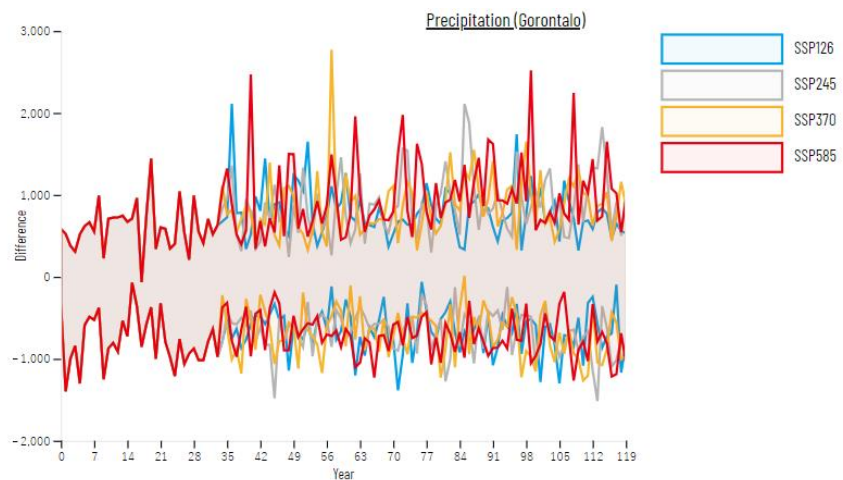







Climate Projections:

- Increase of weather extremes and drought between 22%-300% due to anthropogenic emission & ENSO.
- Increase of avg. temperature in the district **by +2 °C by 2050s** in all scenarios and **+3 °C by 2090s** in 3 scenarios (SSP245, -370, -585).
- Increase of **precipitation ratio variability in the district between 0.8 to 1.2 in all scenarios** which may lead to uncertain weather pattern by 2090s.

Vulnerabilities & Impacts:

- Shift of maize suitability from suitable to marginally suitable and not suitable.
- Projected decrease of paddy productivity by more than 25%, thus Gorontalo is listed as Top Priority by BAPPENAS in LCDI plan.
- Potential threat of drought, floods, and pests attack increase to crops which reduce productivity or crop failures which affects .
- Low income farmers vulnerable to fall into poverty.



SEMINAR ON THE INTRODUCTION TO ADAPTATION PLANNING TOOLS WITH EMPHASIS ON FLOOD SIMULATION AND CLIMOCAST

OCTOBER 18-19, 2024
LAOAG CITY CONFERENCE HALL

DR. RAMESH SOYSA

Programme

DAY 1		
OPENING PROGRAM		
8:30 - 9:30 AM	Opening Prayer	AVP
	National Anthem	AVP
	Welcome Remarks	Mr. Taiki Kohno Assistant Director, MoEJ
	Opening Remarks	Dr. Guilberto Borongan Director, AIT RRC.AP
	Congratulatory Remarks	Hon. Michael Marcos Keon City Mayor, Laoag City
9:30 - 10:00 AM	Photo session and Coffee Break	
LECTURE PROPER		
9:30 - 10:00 AM	Introduction to AIT RRC.AP	Dr. Ramesh Soysa Head, Climate Change Cluster, AIT RRC.A
10:00 - 12:00 NN	Introduction to Adaptation Tools	
	Introduction of AP-PLAT in the context of Regional Climate Resilience	Dr. Ramesh Soysa Head, Climate Change Cluster, AIT RRC.A
	Presentation of Laoag City Disaster Risk Reduction and Management Office	Dr. Melvin Medel Manuel LDRRMO IV
	Introduction to Floods & Climocast (Part 1)	Engr. Julius Jimenez Expert, AIT RRC.AP
12:00 NN - 1:00 PM	LUNCH	
1:00 - 2:45 PM	Introduction to Floods & Climocast (Part 2)	Engr. Julius Jimenez Expert, AIT RRC.AP
	GCF Concept Note Development	Dr. Guilberto Borongan Director, AIT RRC.AP
	Question and Answer	
2:45 - 3:30 PM	Distribution of Certificates	
DAY 2		
	Field Visit to Laoag City Local Adaptation Infrastructure Site	

Proposing a new Interactive e-learning Course to be launched in AP-PLAT GCF Portal on Green Climate Fund Concept Note Development



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AP-PLAT
Asia-Pacific
Climate Change Adaptation
Information Platform



cCca
Center for Climate Change Adaptation

Proposing the Launch of AP-PLAT GCF Portal at Regional Training Workshop on GCF Concept Notes Development for Central Asia scheduled for April 2025 in Central Asia (TBC).



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Thank you

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