

# Roles of NIES on promoting adaptation actions: information platforms and research program

Dr. Mimi Nameki

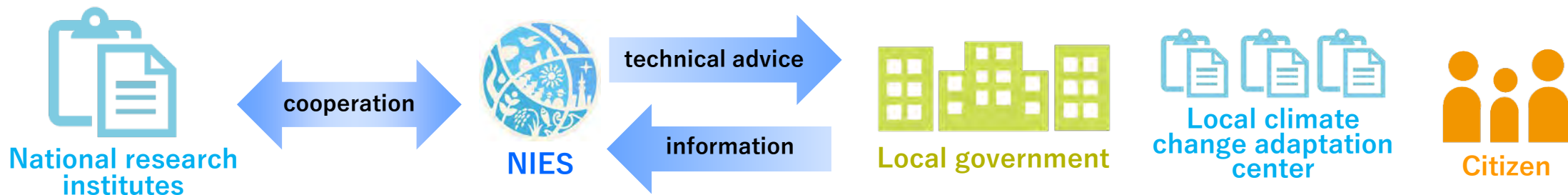
Center for Climate Change Adaptation  
National Institute for Environmental Studies



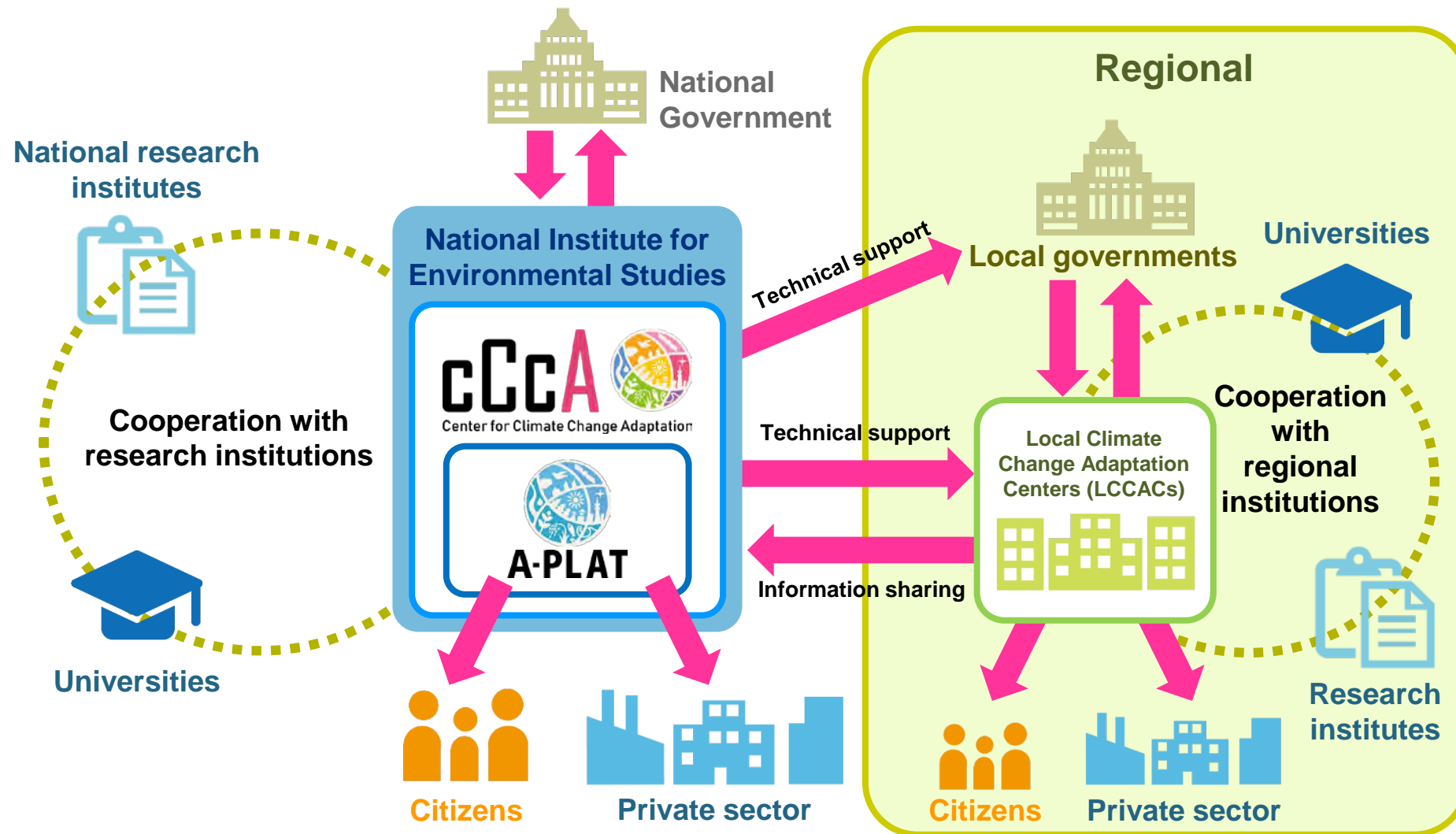
# Roles of NIES under the Climate Change Adaptation Act

## Development of domestic adaptation information infrastructure (Article 11)

- Appoint NIES as the **core of information infrastructure for adaptation**
- NIES shall:
  - collect, organize, analyze and provide **information related to climate change impacts and adaptation**; and
  - provide **technical advice and support to local governments, local climate change adaptation centers and other institutions**
- NIES will:
  - cooperate with other research institutions; and
  - foster **public participation** in collecting information about climate change impacts

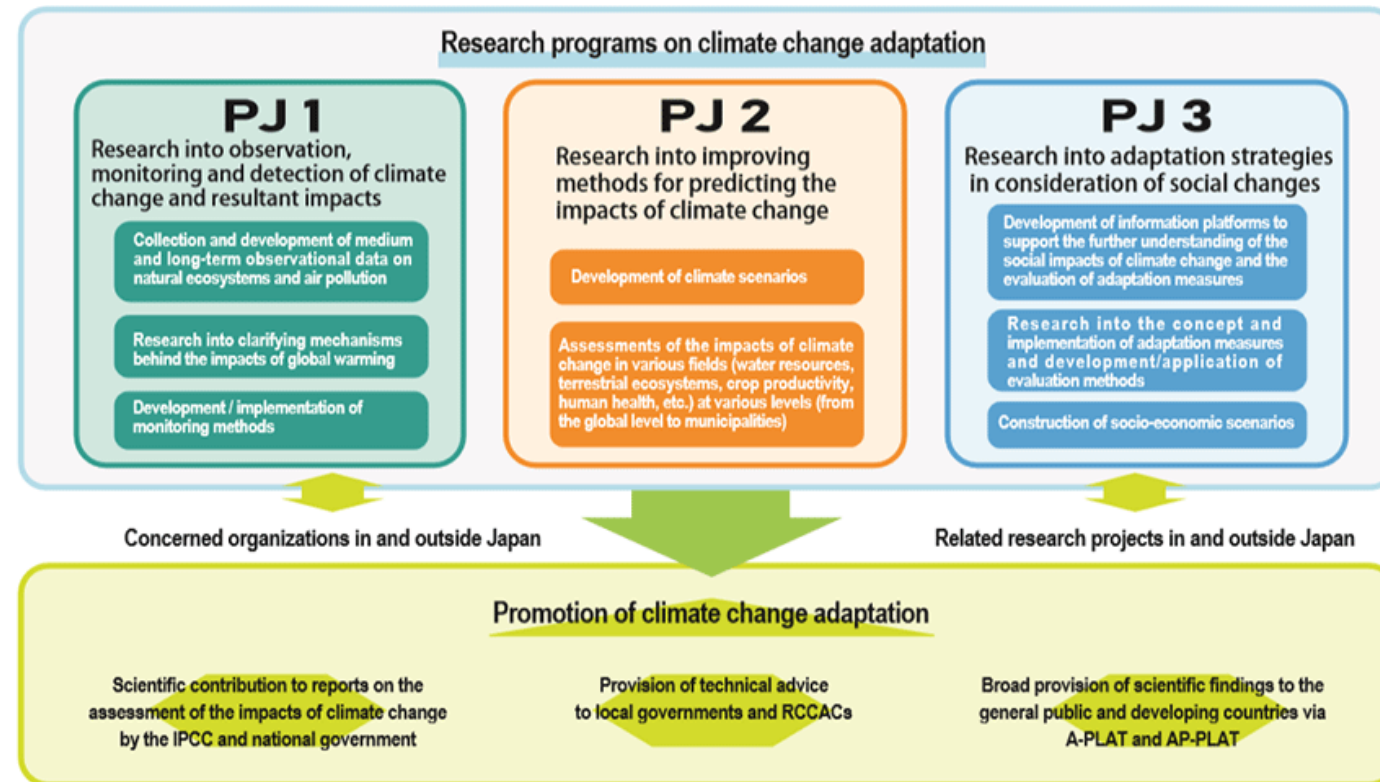


# Center for Climate Change Adaptation, NIES



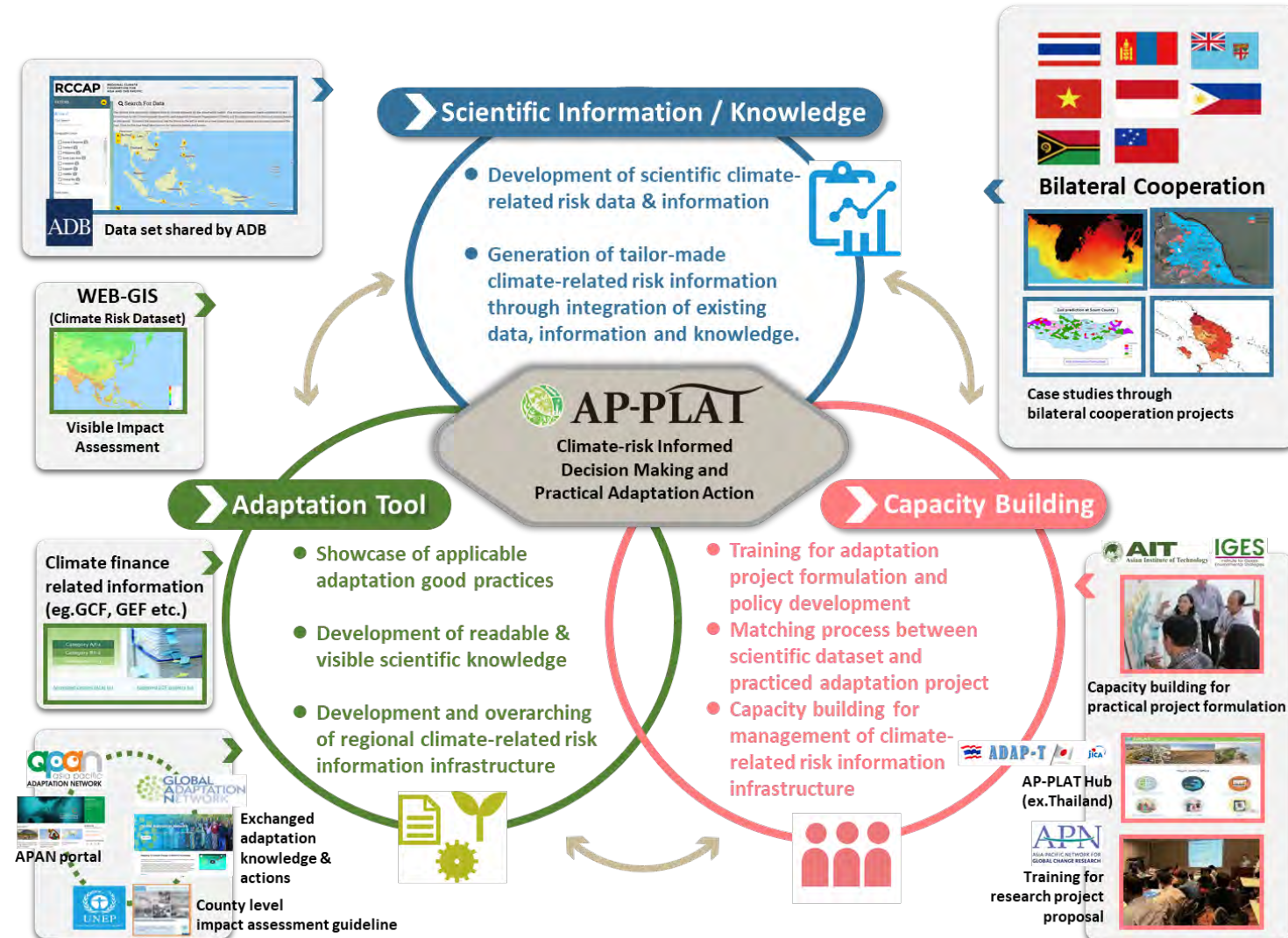
# Climate Change Adaptation Research Program

- In-house research program on climate change impacts and adaptation
  - Project 1: Observation, monitoring and detection of climate change and its impacts
  - Project 2: Improving methods for projecting impacts of climate change
  - Project 3: Adaptation strategies considering social changes
- Outcomes of this research program will be provided in A-PLAT and AP-PLAT to support decision making in climate change adaptation



# Asia-Pacific Climate Change Adaptation Information Platform (AP-PLAT)

- **AP-PLAT** was launched on June 16, 2019, to **support climate change adaptation measures** by providing state-of-the-art scientific knowledge on climate change impacts and adaptation.
  - to support national & local governments, private sectors, and individuals to develop and implement adaptation measures
  - to collect and provide scientific knowledge (observation, climate and impact projections) in the Asia-Pacific Region
  - to promote information-sharing and capacity building with stakeholders





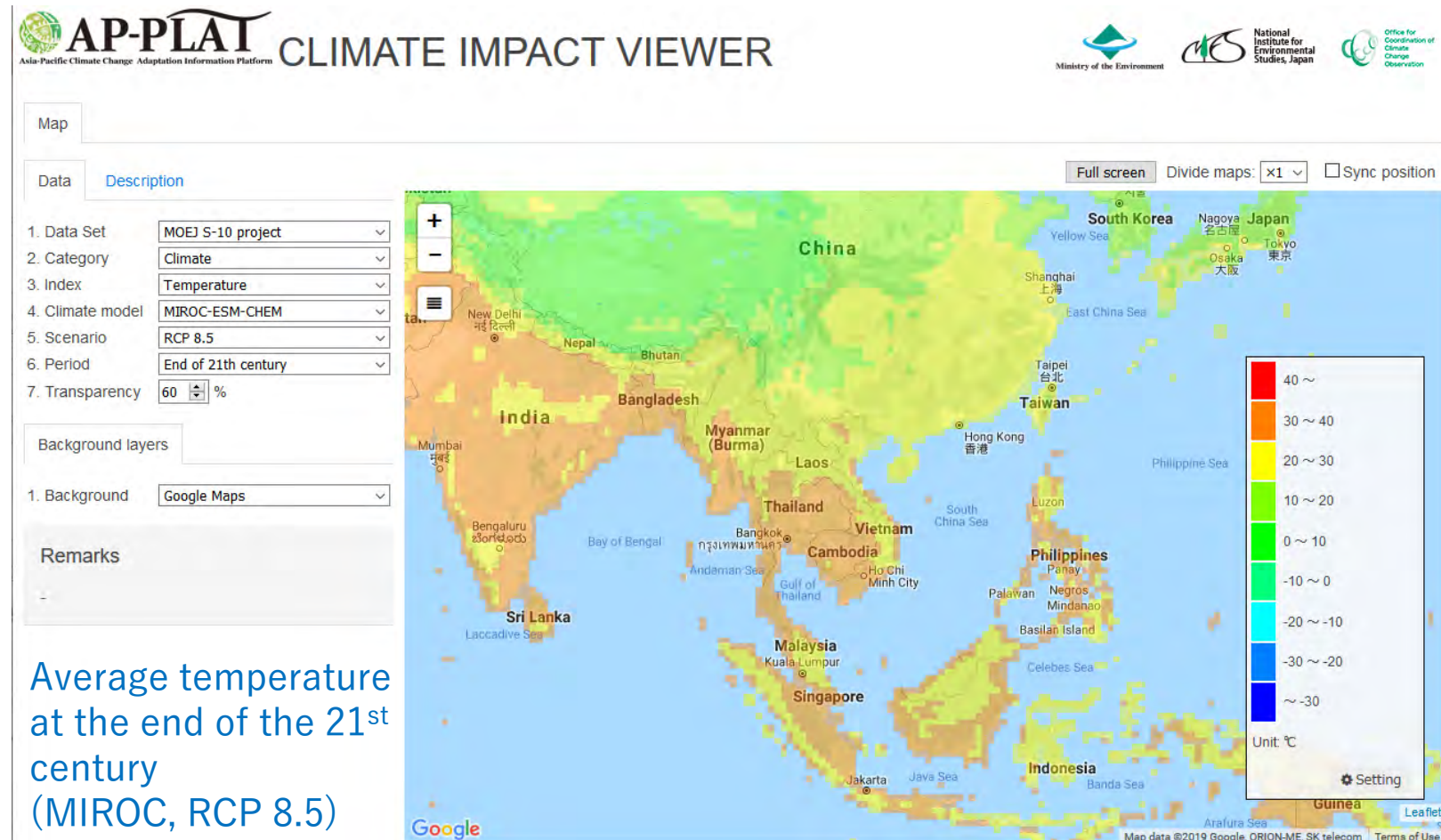
# Roles of NIES in AP-PLAT

- NIES has been working on developing the AP-PLAT website to **provide scientific knowledge and information** related to climate change impacts and adaptation.
- Key contents
  - Climate Impact Viewer
  - NDCs, NAPs, NAPAs, TNAs
  - Guidelines
  - Climate funds

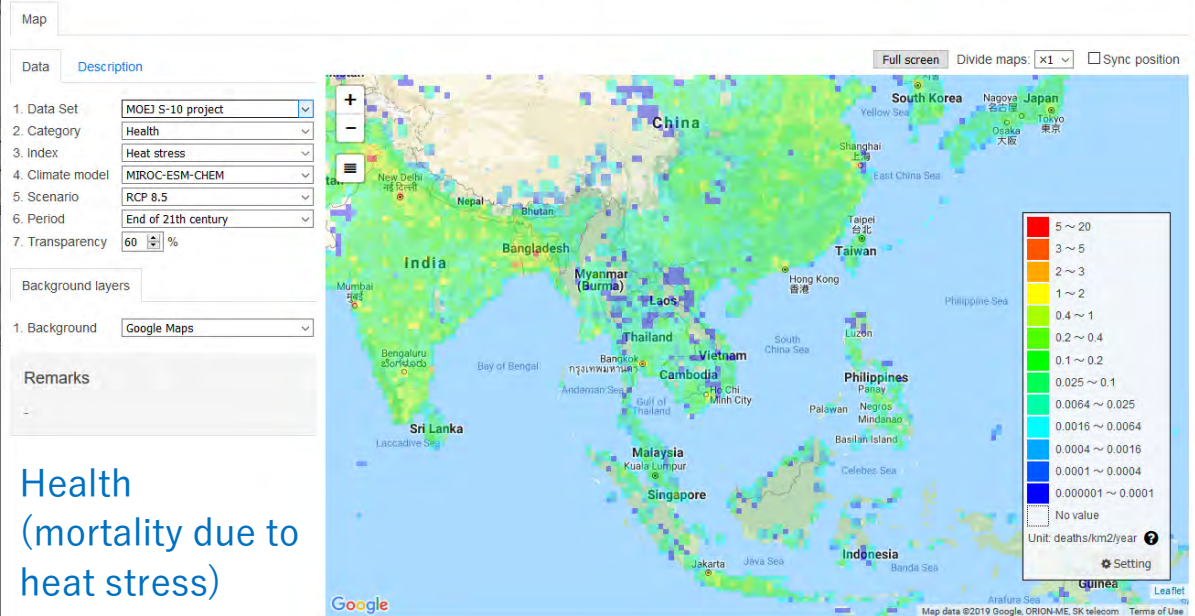
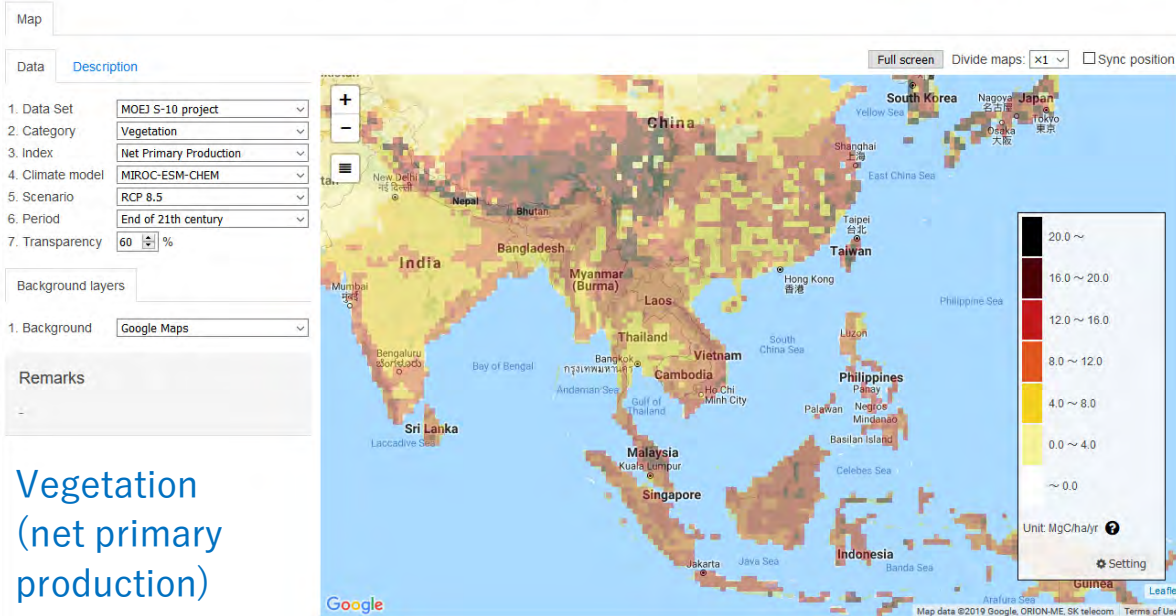
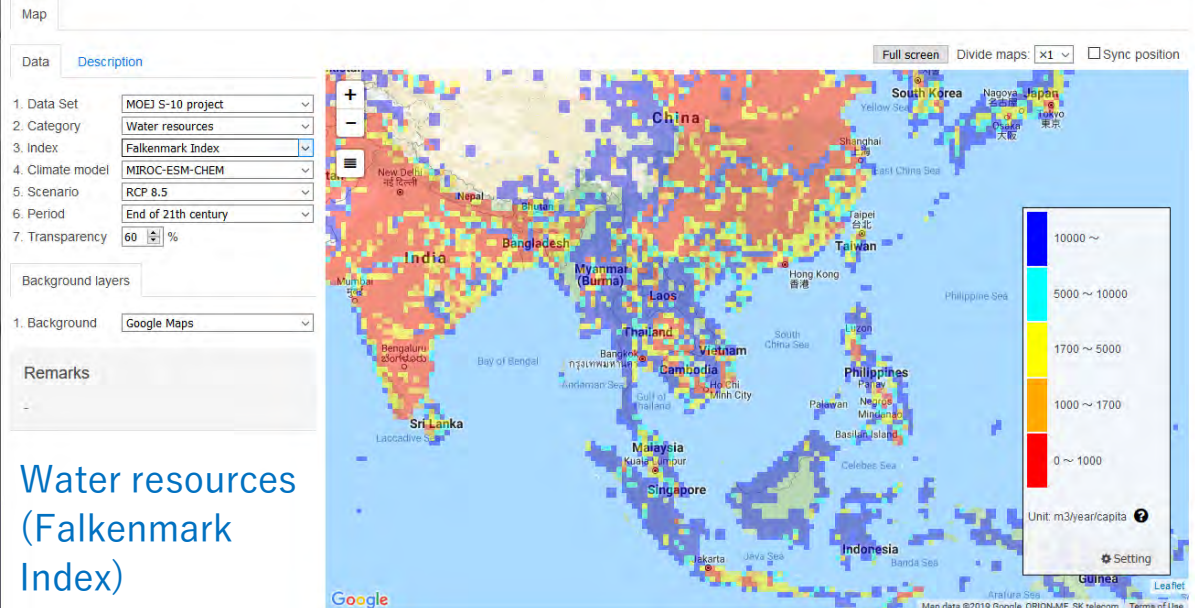
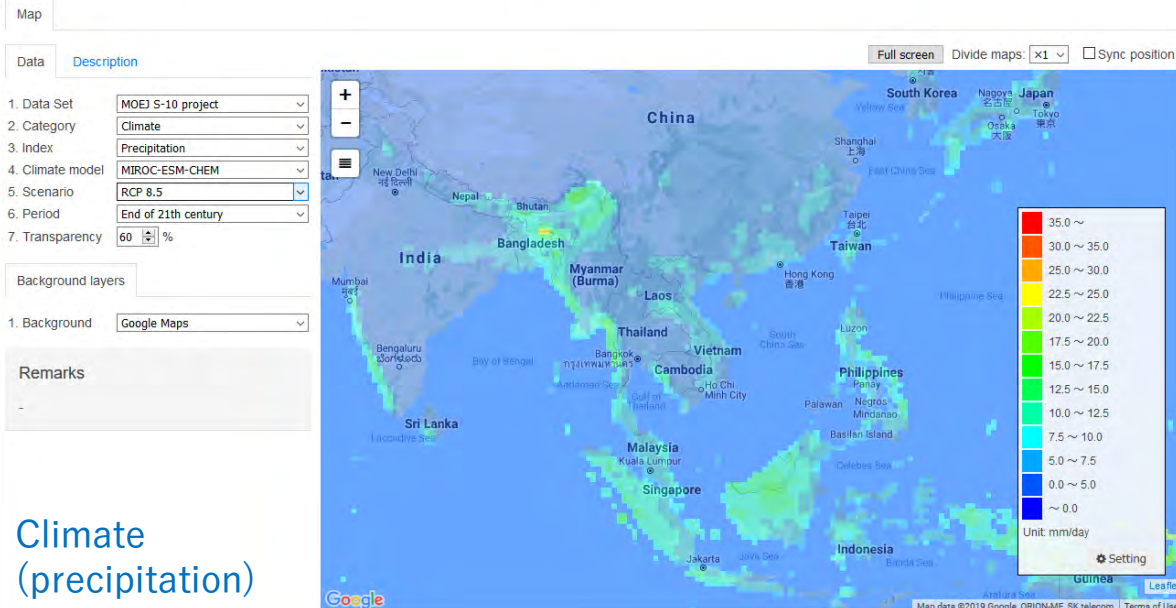


# Climate Impact Viewer

- Climate Impact Viewer shows projection of climate scenarios and climate change impacts from research projects (MOEJ, ADB, etc.) on interactive maps.
- Sectors covered in the Climate Impact Viewer
  - (a) Climate
  - (b) Water resources
  - (c) Vegetation
  - (d) Health









# AP-PLAT contents

## Bilateral cooperation

### Indonesia

Climate Change Impact Assessment for Local Adaptation Planning in the Republic of Indonesia

[Read More >](#)

Model development and analysis on data  
Various Scenarios for adaptation  
Economic analysis  
Visualization  
Knowledge database  
Policy formulation  
Local action  
Final assessment with local government

the University of Tokyo  
NIPPON KOEI  
環境大学 NIPPON KOEI

### Mongolia

(1) Early warning system for massive livestock mortality  
(2) Risk assessment and potential adaptation measures for water resources in Ulaanbaatar, Mongolia

[Read More \(1\) >](#) [Read More \(2\) >](#)

中興大学  
NIKKEN

### Philippines

A participatory approach for enhancing climate-resilient watershed planning within local governments

[Read More >](#)

IGES Institute for Global Environmental Strategies

### Fiji, Vanuatu, Samoa

Climate change impact assessment on storm surge and storm waves in Pacific island countries with satellite-based remote sensing technology

[Read More >](#)

Remote Sensing Technology Center of Japan  
the University of Tokyo  
KONAZAWA  
NOVARTIS

### T-PLAT (Thailand)

MAIN CONTENTS

### I-PLAT (Indonesia)

Climate change impact on rice production: North Sumatra

Change in yield (%)

Average change in yield: -14.7%

\* Change rate in 2030-2040 compared with 1970-2000  
\* Average of Six Climate Models including MRGCM and four RCP scenarios (RCP2.6, 4.5, 6.0, 8.5)

Impact on waterborne disease: East Java

Influence of heat environment and infectious diseases in urban areas (Risk assessed by inundation map, population and norovirus concentration)

Year number of infectious disease

es.go.jp/en/ap-  
nl

Full screen Divide maps: x1 Sync position

San Pedro  
Splash Island  
General Mariano Alvarez  
Carmona  
Binan  
Santa Rosa  
Cabanatuan  
CANLUBANG  
BARANDA  
Calamba

Other woody veg.  
Other Imperv  
Pond  
Scrub/BroadleafFor\*  
Coconut  
Ricefield  
Idle/Grassland  
Ag/Mixed Crop  
Institutional  
Industrial  
Residential


Google  
Map data ©2019 Terms of Use

# AP-PLAT contents




## National Adaptation Plans

**Plans**

This page shares the adaptation plans for the Asia-Pacific countries laid out using inputs from Nationally Determined Contributions (NDCs), National Adaptation Plans (NAP), National Adaptation Programmes of Action (NAPA), and Technology Needs Assessments (TNA) for climate change adaptation.




Country:  NDC ? NAP ?

	<a href="http://www4.unfccc.int/ndcregistry/PublishedDocuments/Afghanistan%20First/INDC_AFG_20150927_FINAL.pdf">http://www4.unfccc.int/ndcregistry/PublishedDocuments/Afghanistan%20First/INDC_AFG_20150927_FINAL.pdf</a>	<p>Assessment for Global Environmental Management (NCSA) and National Adaptation Programme of Action for Climate Change (NAPA)</p> <p><a href="http://unfccc.int/tclear/misc/StaticFiles/gnwork_static/TNR_CRE/e9067c6e3b97459989b2196f12155ad5/5583180f345e40c79bd3005fd18850cc.pdf">http://unfccc.int/tclear/misc/StaticFiles/gnwork_static/TNR_CRE/e9067c6e3b97459989b2196f12155ad5/5583180f345e40c79bd3005fd18850cc.pdf</a></p> <p>National Adaptation Programme of Action</p> <p><a href="http://unfccc.int/tclear/misc/StaticFiles/gnwork_static/TNR_CRE/e9067c6e3b97459989b2196f12155ad5/02c9524236a149dca1ba407ff7442532.pdf">http://unfccc.int/tclear/misc/StaticFiles/gnwork_static/TNR_CRE/e9067c6e3b97459989b2196f12155ad5/02c9524236a149dca1ba407ff7442532.pdf</a></p>
	<a href="http://www4.unfccc.int/ndcregistry/PublishedDocuments/Australia%20First/Australia%20Intended%20Nationally%20Determined%20Contribution%20to%20a%20new%20Climate%20Change%20Agreement%20-%20August%202015.pdf">http://www4.unfccc.int/ndcregistry/PublishedDocuments/Australia%20First/Australia%20Intended%20Nationally%20Determined%20Contribution%20to%20a%20new%20Climate%20Change%20Agreement%20-%20August%202015.pdf</a>	
	<a href="http://www4.unfccc.int/ndcregistry/PublishedDocuments/Bangladesh%20First/INDC.2015_of_Bangladesh.pdf">http://www4.unfccc.int/ndcregistry/PublishedDocuments/Bangladesh%20First/INDC.2015_of_Bangladesh.pdf</a>	

## Guidelines

LEAST DEVELOPED COUNTRIES EXPERT GROUP

Monitoring and assessing progress, effectiveness and gaps under the process to formulate and implement National Adaptation Plans: The PEG M&E tool



United Nations Framework Convention on Climate Change

LDC EXPERT GROUP 2015



**Gender Mainstreaming in Environment and Sustainable Development Projects**

A Perspective from the Asia-Pacific Region



**DISASTER RESILIENCE SCORECARD FOR CITIES**

DETAILED LEVEL ASSESSMENT

MAY 2017





# AP-PLAT contents

## Adaptation funding

### Overview of Main Climate Funds to support Developing Countries

There are various types of funding and technical support schemes for developing countries to address climate change adaptation issues. This section introduces these schemes focusing on the following 5 schemes under the UNFCCC as well as the World Bank.

Financial Mechanism	Technology Mechanism
<ul style="list-style-type: none"> <li>&gt; <a href="#">Global Environment Facility (GEF)</a></li> <li>&gt; <a href="#">Adaptation Fund (AF)</a></li> <li>&gt; <a href="#">Green Climate Fund (GCF)</a></li> <li>&gt; <a href="#">Climate Investment Fund (CIF)</a></li> </ul>	<ul style="list-style-type: none"> <li>&gt; <a href="#">Climate Technology Centre and Network (CTCN)</a></li> </ul>

- Overview of the Green Climate Fund (GCF) >
- Strategic Prioritized Areas >
- Portfolio of GCF Projects >
- Six Investment Criteria >
- Access Modalities for GCF >
- Funding Proposal Approval Process >
- National Designated Authority (NDA) >

- Fund to support mitigation and adaptation measures against climate change
  - Aims to achieve a paradigm shift
  - Established at the COP16 to the UNFCCC, with its permanent headquarters located at Songdo, Republic of Korea
  - Board meetings are held at least twice a year (normally three times)
  - Started project approvals from 2015; As of March 2018, 76 projects have been approved and total of 3.7 billion USD has been committed
  - Accredited Entities (AE) play the central role in project implementation.
- Project + Programmes: <https://www.greenclimate.fund/what-we-do/projects-programmes>  
 Portfolio Dashboard: <https://www.greenclimate.fund/what-we-do/portfolio-dashboard>



GCF Project description

## Activities in private sector

### Project Details

Sumitomo Chemical provides "Olyset® Net" for regions where there are fears of an increase in infectious diseases transmitted by mosquitoes as a result of expansion in mosquito breeding areas due to climate change. The Company started local production in September 2003 through a grant of manufacturing technology to A to Z Textile Mills Limited in Tanzania. To meet surging demand, "Olyset® Net" Production Company was set up as a joint venture with A to Z Textile Mills Limited, through which as many as 7,000 job opportunities were generated and the regional economy was boosted. In 2010, the Company built a production framework that, combined with Asian production bases, is aggregately capable of manufacturing as many as 60 million units annually. The products are now supplied to more than 80 countries through such international organizations as The Global Fund and UNICEF. Furthermore, the Company has launched sales to general consumers through local supermarkets in Kenya and several countries in Asia since 2011 to develop diverse sales channels.



Child playing with mosquito net



Manufacturing plant

### Project Details

NEC Corporation in collaboration with Thailand's National Disaster Warning Center (NDWC) and Japanese Embassy of Thailand, has conducted a trial of its flood simulation system to predict the inundation areas in Uttaradit Province in Northern Thailand during the period from November 2015 to March 2016. It was the first Japan-Thailand cooperation project in the field of disaster reduction ICT conducted as part of the "Research and study for the development of a flooding simulator in Thailand" project commissioned by Japan's Ministry of Internal Affairs and Communications.



Live Simulation



Warning Function



# Summary

- NIES will continue to support science-based decision making in climate change adaptation by **providing latest scientific knowledge** on climate change impacts and adaptation to the stakeholders in the Asia-Pacific Region.
  - Latest scientific knowledge from research works in NIES and research projects supported by partner organizations (e.g. MOEJ, ADB)
  - User-friendly data visualization (e.g. interactive maps)
- We will enhance mutual collaboration with partner institutions towards solid and practical adaptation measures.

