

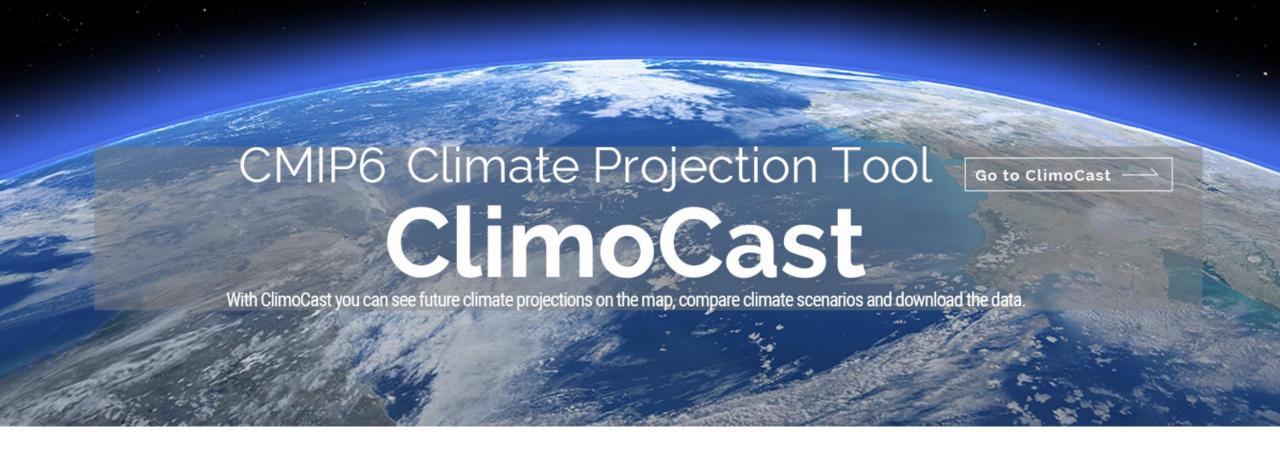
## Yuji Masutomi

Center for Climate Change Adaptation, National Institute for Environmental Studies





National Institute for Environmental Studies, Japan



Main concept: Climate Projections for ALL

We deliver latest climate projections to everyone.

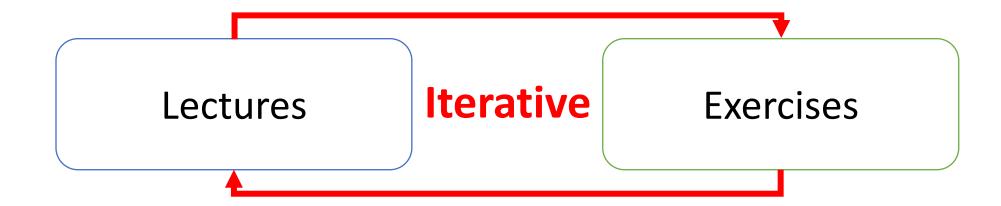
Sub concept: Quick and easy access

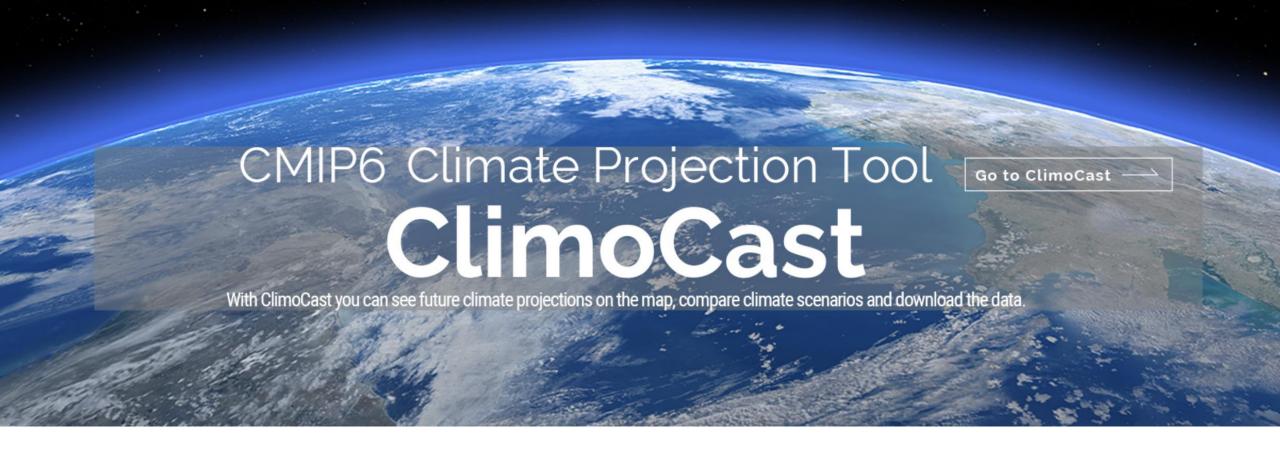
By using ClimoCast, you can climate projections the fastest and easiest.

## Goals and approach for training

- [Minimum]: You can recognize and remember ClimoCast
- 【Intermediate】: You can get climate data through ClimoCast
- 【Final】: You use ClimoCast in your work

Approach

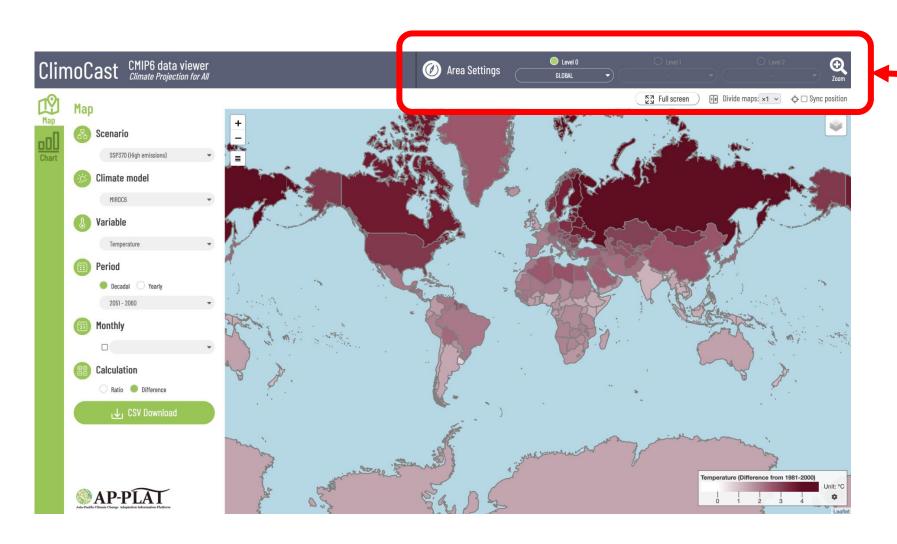




## Step0: Go to ClimoCast!!

Search "ClimoCast" in Google and click it

## STEP 1-1: Area setting



**← Here** 

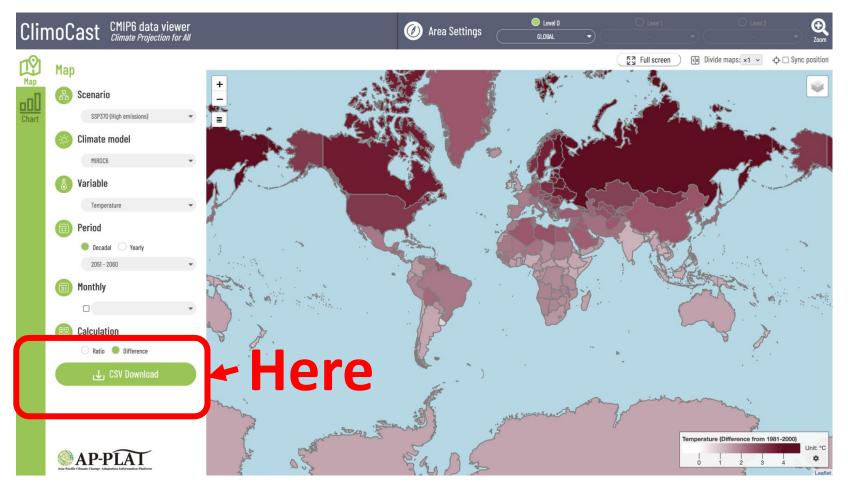
Level0: Country

Level1: Province

Level2: City

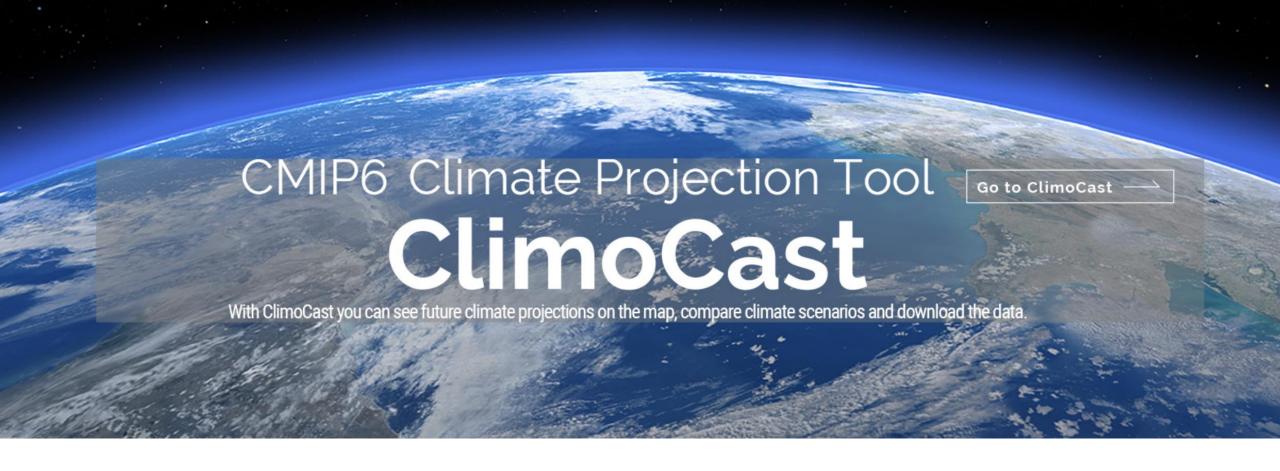
Sorry, for Maldives, no level 1 and 2

### STEP 1-2: Click "CSV Download"



 Save it to your PC and open it.

The value shows temperature increase in your town!!



Exercise 1: Answer temperature increase in your town

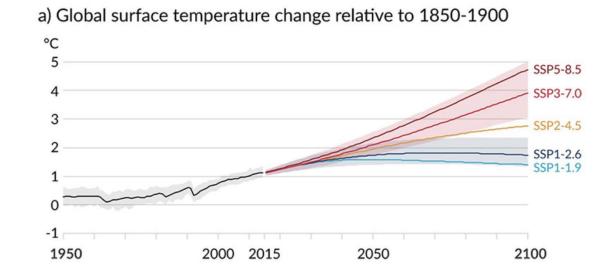
## STEP2: Change setting

#### 1 Emission scenario

- SSP126: Low
- SSP245: Intermediate
- SSP370: High
- SSP585: Very high

#### 2 Climate model (10 Climate models)

- There are many climate projections provided by different climate models.
- 10 Climate model projections are included in ClimoCast.
- Different climate models show different climate projections.
- It is impossible to know best or worst models at this stage.
  - You must not ask which one is best?
  - Climate model uncertainty



## STEP2: Change setting

#### **3** Variable

- Average temperature
- Minimum temperature
- Maximum temperature
- Precipitation

#### 4 Period

- decadal or yearly
- 1981-2000

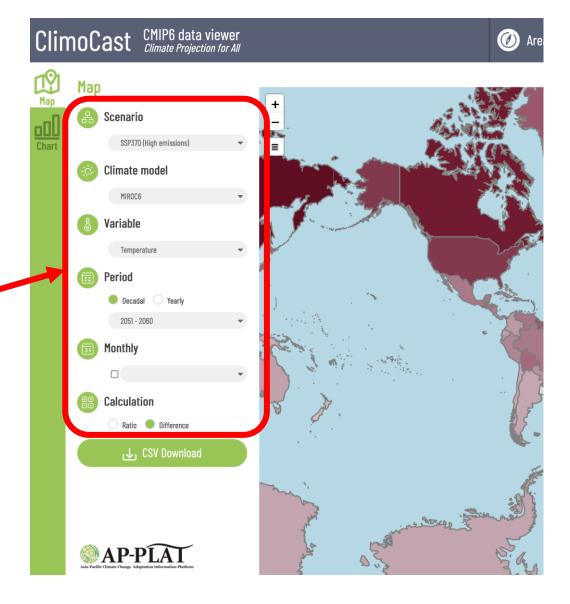
#### **5**Monthly

You can select Jun-Dec if you check

#### **6**Calculation

- Ratio: ratio to 1981-2000 (for precipitation)
- Difference: difference from 1981-2000 (for temperature)





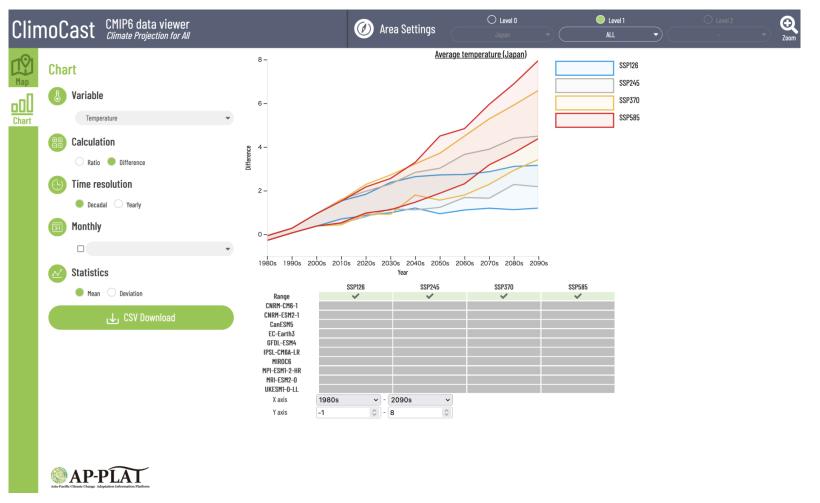
## Exercise 2-1 (Emission scenario)

- i: Answer how much degree will maximum temperature (Variable) increase in your town in 2091-2100 (Period) under SSP126 (Emission scenario) according to MIROC6 (Climate model)?
- ii: Answer how much degree will maximum temperature (Variable) increase in your town in 2091-2100 (Period) <u>under SSP370 (Emission scenario)</u> according to MIROC6 (Climate model)?
- iii: Which emission scenario show higher maximum temp. increase and how much is the difference?
  - It shows the effect of mitigation!!

## Exercise 2-2 (Climate model)

- i: Answer how much degree will maximum temperature (Variable) increase in your town in 2091-2100 (Period) under SSP370 (Emission scenario) according to <a href="UKESM1-0-LL">UKESM1-0-LL</a> (Climate model)?
- ii: Which climate model (MIROC and UKESM1-0-LL) show higher maximum temp. increase and how much is the difference?

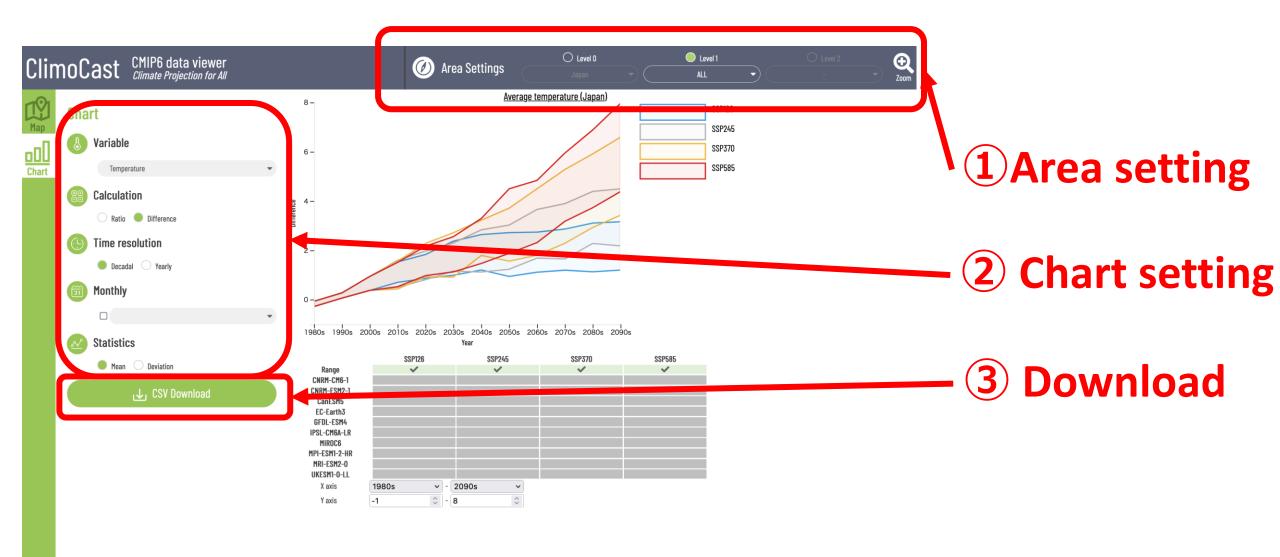
## STEP3: Chart mode



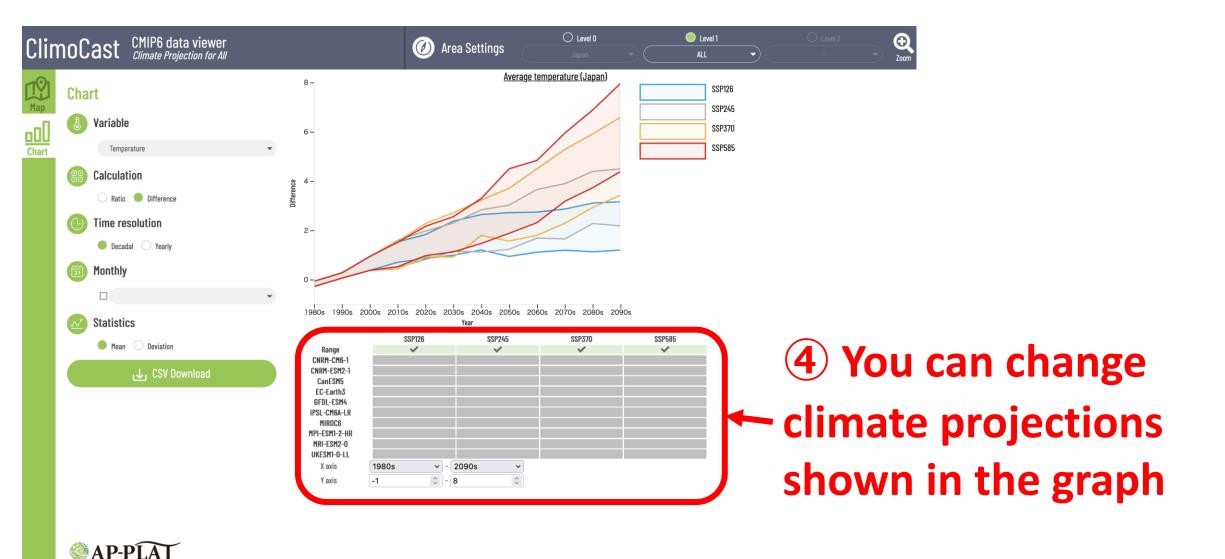
- The graph shows each projection of climate models and emission scenarios
- You can understand climate change over time through the graph.
- You can download all projection data for the area you selected.
  - You can analyze the data
  - You can make tables and figures in your favorite style.

### STEP3: Chart mode

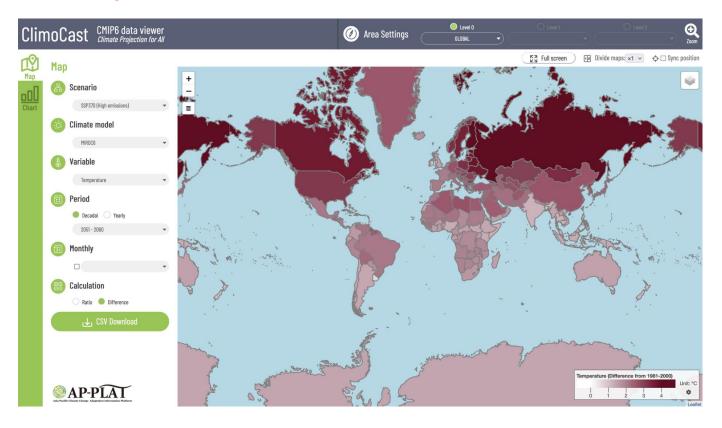
AP-PLAT



## STEP3: Chart mode

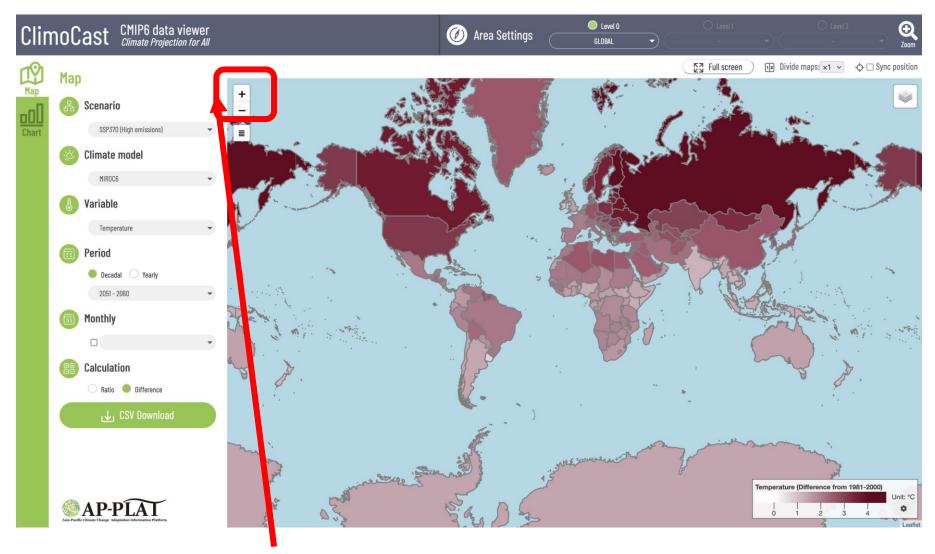


## Step 4: Map mode



- You can geographically understand climate change in your country and province.
  - You can geographically compare climate change across countries, provinces, and towns.
  - Which province will have highest temperature increase?

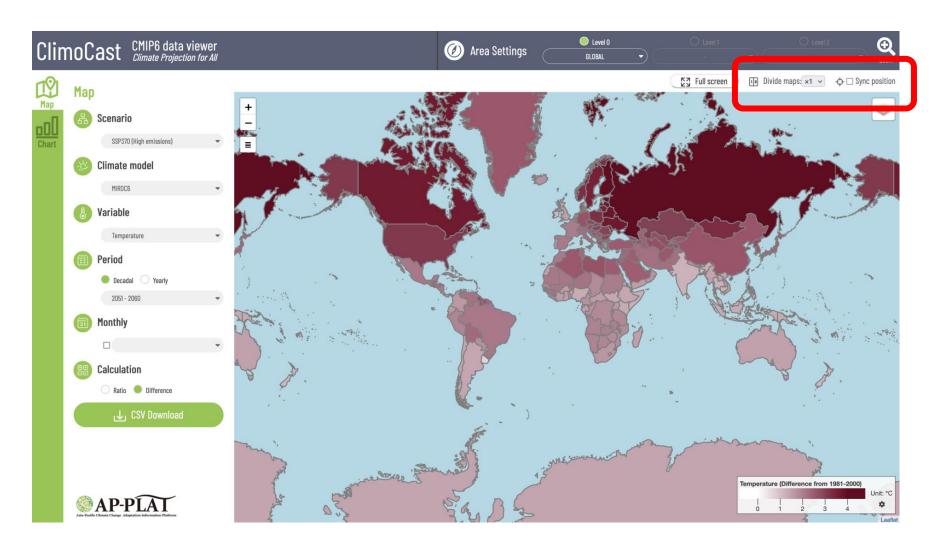
## Step 4: Map mode (Change region by hands)



1 Zoom in and out

**2** Scroll the map

## STEP5: Map mode (Split view)



**1** Sprit view (1, 2, or 4 map)

2 Syncronize the maps

#### **Tutorial series on ClimoCast at Youtube**

- Introduction
  - https://www.youtube.com/watch?v=WMr4 EWnFenQ
- Map mode
  - https://www.youtube.com/watch?v=iO6DU SnqnHM
- Chart mode
  - https://www.youtube.com/watch?v=qnRK3 el5Wqo
- Conclusion
  - https://www.youtube.com/watch?v=HGGj Mfw4zyw











#### Goals

- [Minimum]: You can recognize and remember ClimoCast
- 【Intermediate】: You can get climate data through ClimoCast
- [Final] : You use ClimoCast in your work

# Thank you so much Contact me if you have any questions about AP-PLAT and tools.

masutomi.yuji@nies.go.jp