With ClimoCast you can see future climate projections on the map, compare climate scenarios and download the data.

Yuji Masutomi

Center for Climate Change Adaptation, National Institute for Environmental Studies





National Institute for Environmental Studies, Japan

With ClimoCast you can see future climate projections on the map, compare climate scenarios and download the data.

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



With ClimoCast you can see future climate projections on the map, compare climate scenarios and download the data.

Step0: Go to ClimoCast!!

Search "ClimoCast" in Google and click it

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

STEP 1-1: Area setting



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!!

With ClimoCast you can see future climate projections on the map, compare climate scenarios and download the data.

Exercise 1: Answer temperature increase in your town

STEP2: Change setting

①Emission scenario

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

②Climate 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



a) Global surface temperature change relative to 1850-1900

STEP2: Change setting

③ Variable

- Average temperature
- Minimum temperature
- Maximum temperature
- Precipitation

④Period

- 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)

Here



Exercise 2-1 (Emission scenario)

- i: Answer how much degree will maximum temperature (Variable) increase in your town in 2091-2100 (Period) <u>under SSP126 (Emission scenario)</u> 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 UKESM1-0-LL (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

🎯 AP-PLAT



 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





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)



1Zoom in and out

2Scroll the map

STEP5: Map mode (Split view)



1Sprit 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