CLIK hands-on (PART III):

Data Processing for CLIK (http://clik.apcc21.org)

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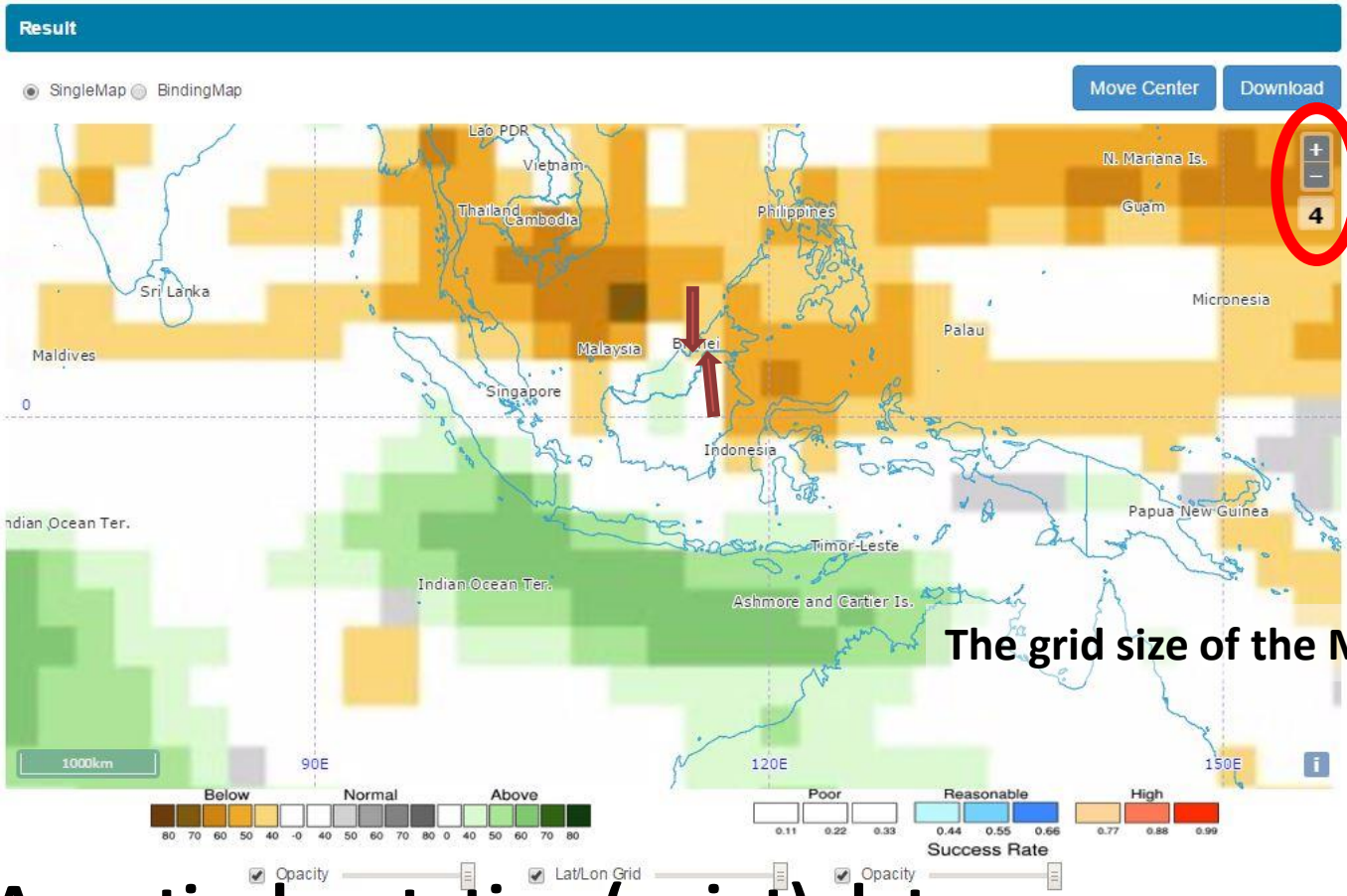
APCC APEC CLIMATE CENTER

Dynamical Forecast

- You've done seasonal forecast using CLIK in part 2.



ZOOM IN!

The grid size of the MME is 2.5° by 2.5°.

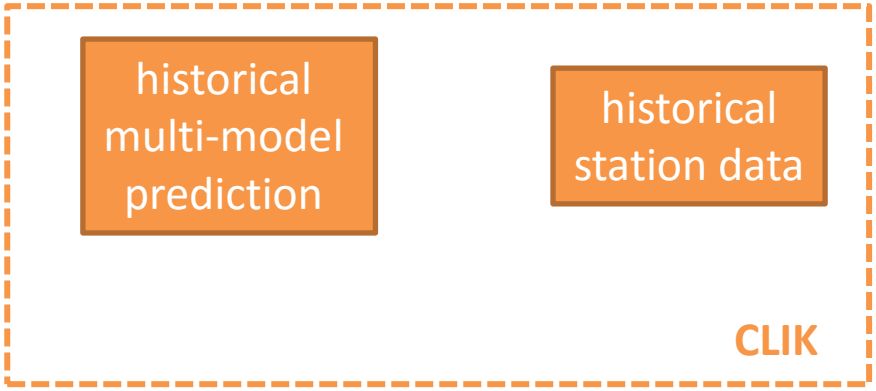
- A particular station (point) data

Post Processing, Downscaling

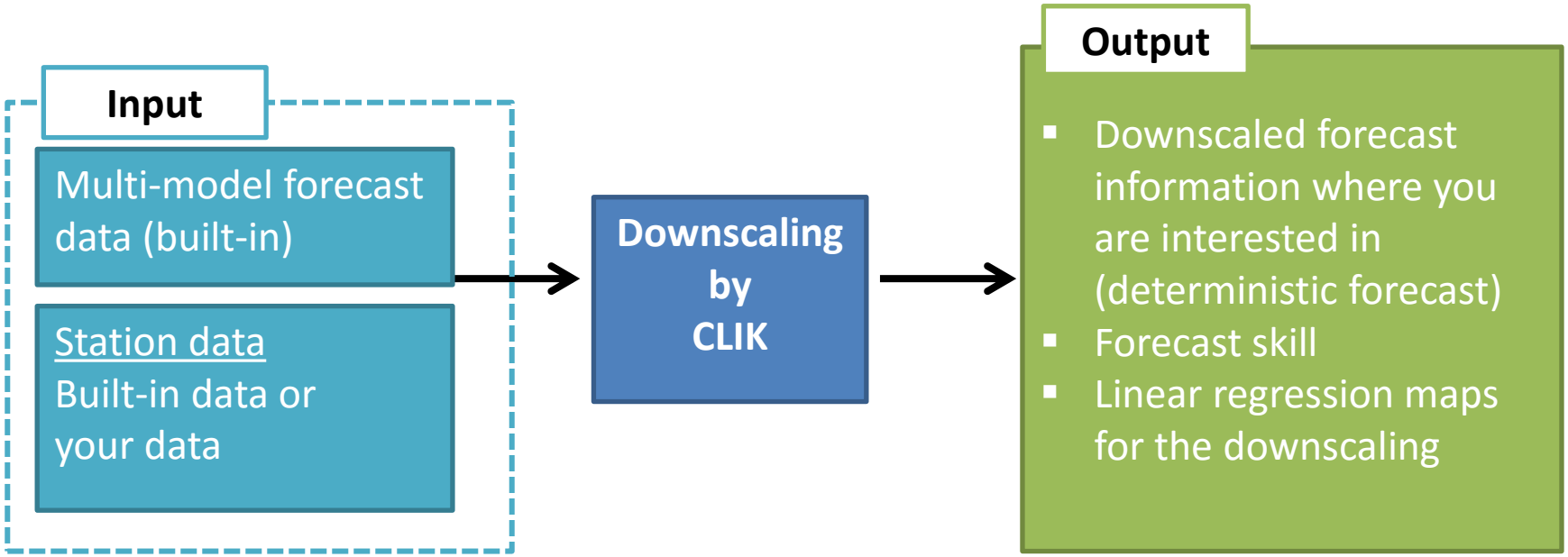
“Post-Processing”

“Downscaling in CLIK”

- There are many approaches in downscaling, all of them share similar process.
- The relationships between forecast and observation



Data Processing



CLIK needs the information of the station for the downscale process.

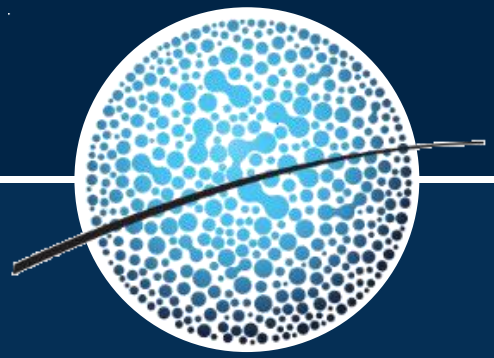
Entering station data into the CLIK for customization

Data Processing

- **In the part 3, Data processing:**

  Making and uploading your station data into the CLIK system.

- **In the part 4, Downscaling**



Then, let's make the station data for the downscaling.

Entering station data into CLIK

A. Preparing Input data

1. Only input monthly mean data (currently)
2. Format: ASCII files with delimited by comma, space, tab, or colon
3. File naming convection: '*.txt' or '*.csv'
4. Input two files: **metadata**, **observation** data
   - 1. metadata file contains information about station.
   - 2. observation data file is the station data itself.
   - You can input data only for one country at a time.
   - 'metadata.txt' & 'korprcp.txt'

Entering station data into CLIK

A. Preparing Input data

1. Metadata file

The first line of this file should contain the following headers:

Name, Station_id, WMO_id, Latitude, Longitude, Undefined, Public

- **Name:** name of the station (string or character array)
- **Station_id:** unique id for the station (integer)
- **WMO_id:** WMO_id for station (integer)
- **Latitude:** latitude for this station (float)
- **Longitude:** longitude for this station (float)
- **Undefined:** missing data (numeric)
- **Public:** true, if your data can be used by others
  false, if your data can not be used by others

Entering station data into CLIK

A. Preparing Input data

1. Metadata file

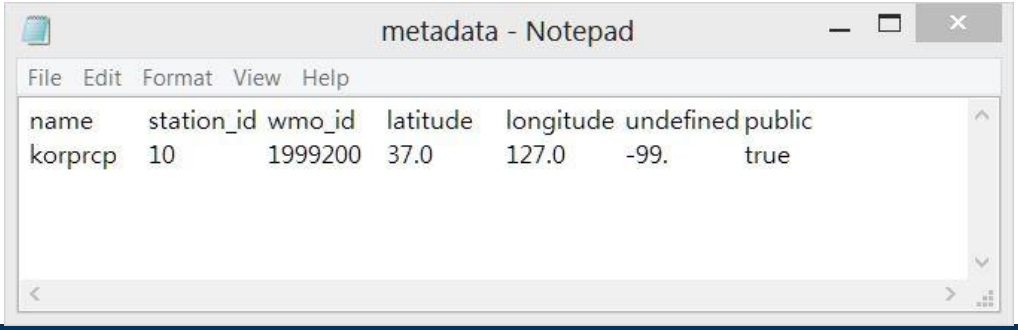
The first line of this file should contain the following headers:

Name, Station_id, WMO_id, Latitude, Longitude, Undefined, Public

Let's make a metadata file.

My example:

- Use Notepad.
- The filename is 'metadata.txt'.



Entering station data into CLIK

A. Preparing Input data

2. Station data file

The first line of this file should contain the following headers:

Station_id, year, jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, dec

You can enter data for either all months of the year or for only available months.

For example, you can input data only for May and September by header of 'Station_id, year, may, sep' and followed appropriate data.

Entering station data into CLIK

A. Preparing Input data

2. Station data file

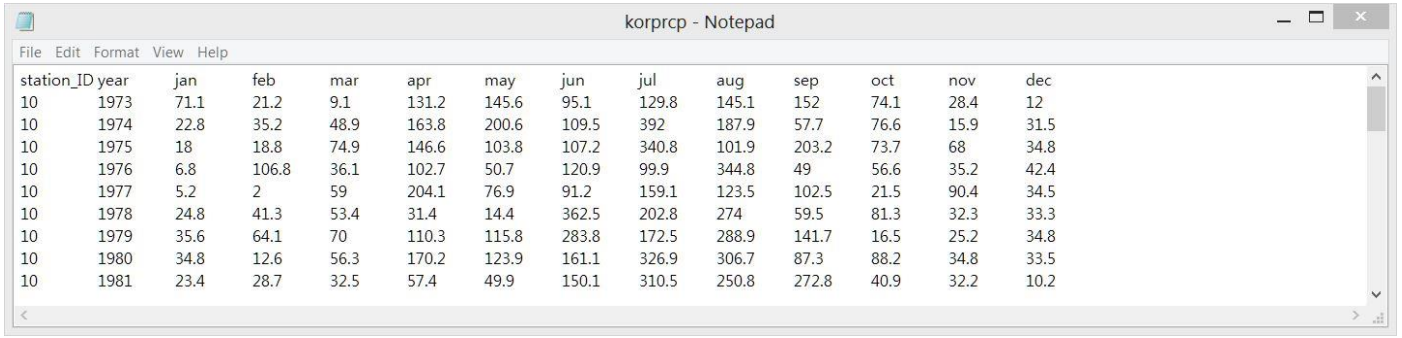
The first line of this file should contain the following headers:

Station_id, year, jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, dec

Let's make a station data file.

My example:

- Use Notepad.
- The filename is 'korprcp.txt'.

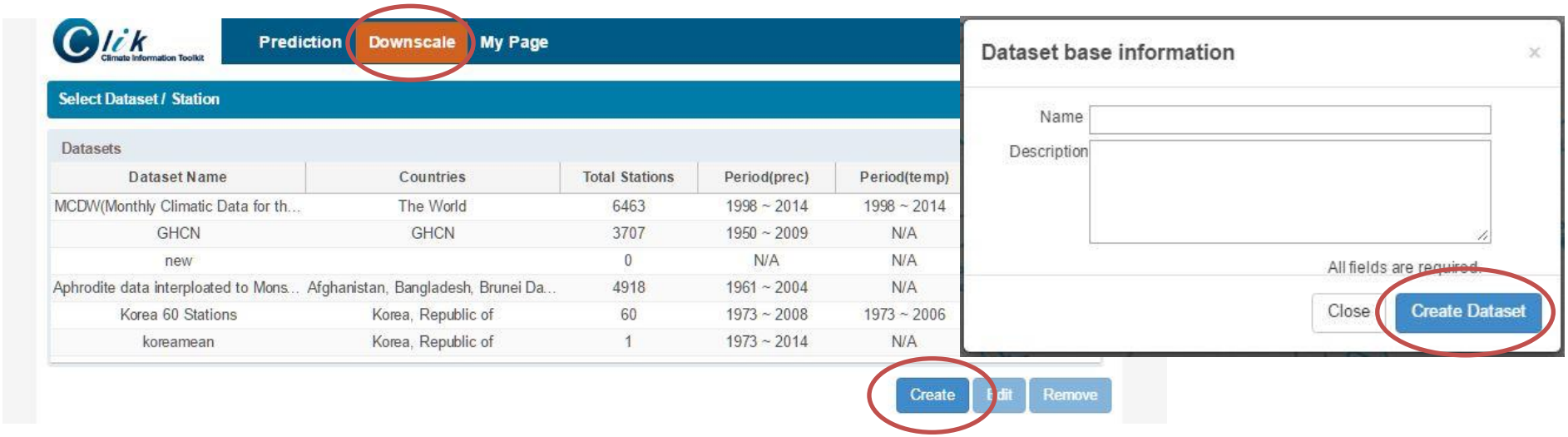


station_ID	year	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
10	1973	71.1	21.2	9.1	131.2	145.6	95.1	129.8	145.1	152	74.1	28.4	12
10	1974	22.8	35.2	48.9	163.8	200.6	109.5	392	187.9	57.7	76.6	15.9	31.5
10	1975	18	18.8	74.9	146.6	103.8	107.2	340.8	101.9	203.2	73.7	68	34.8
10	1976	6.8	106.8	36.1	102.7	50.7	120.9	99.9	344.8	49	56.6	35.2	42.4
10	1977	5.2	2	59	204.1	76.9	91.2	159.1	123.5	102.5	21.5	90.4	34.5
10	1978	24.8	41.3	53.4	31.4	14.4	362.5	202.8	274	59.5	81.3	32.3	33.3
10	1979	35.6	64.1	70	110.3	115.8	283.8	172.5	288.9	141.7	16.5	25.2	34.8
10	1980	34.8	12.6	56.3	170.2	123.9	161.1	326.9	306.7	87.3	88.2	34.8	33.5
10	1981	23.4	28.7	32.5	57.4	49.9	150.1	310.5	250.8	272.8	40.9	32.2	10.2

Entering station data into CLIK

B. Station data upload module

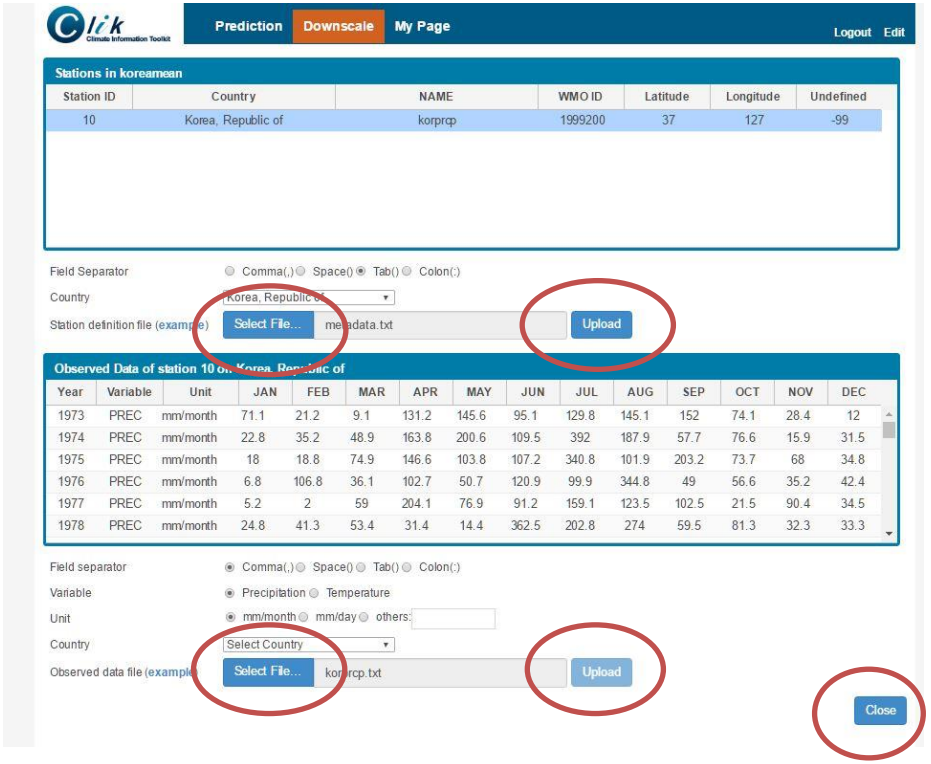
1. Click “Downscale”. This brings a page list currently available data sets.
2. Click “Create” to create a new data set.
3. Fill up two fields in the new entry page.
   - Name: a identifying name of the dataset
   - Description: describe your dataset
   - Click “Create Dataset”
4. Choose the new data set and click “Edit” button.



Entering station data into CLIK

B. Station data upload module

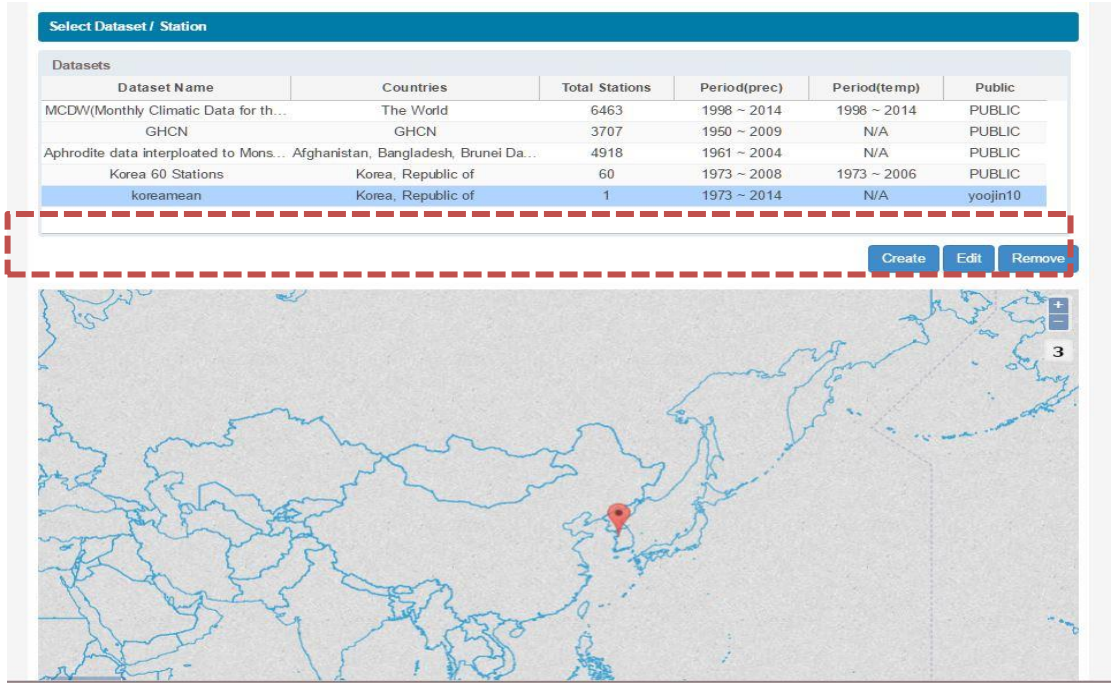
5. The new page allows you to add metadata and station data for one country at a time.
6. Check the ‘Field Separator’ and ‘Country’ for the metadata.
7. Upload the metadata file.
8. Check the ‘Field Separator’, ‘Variable’, ‘Unit’, and ‘Country’ for the station data.
9. Upload the station data file.
10. Click “Close”.



Entering station data into CLIK

B. Station data upload module

11. After finish the data uploading, you can choose any station in the upper panel.

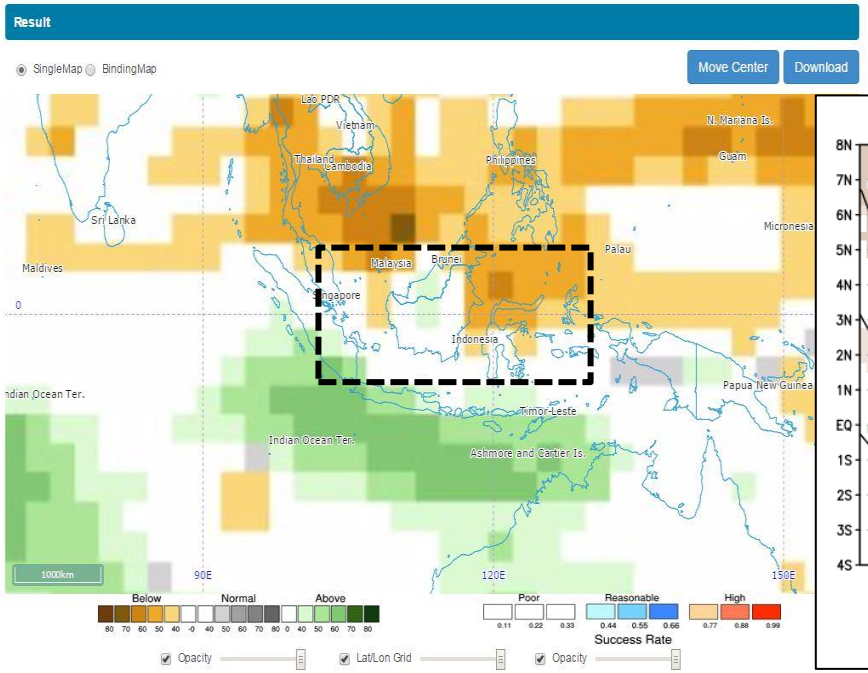


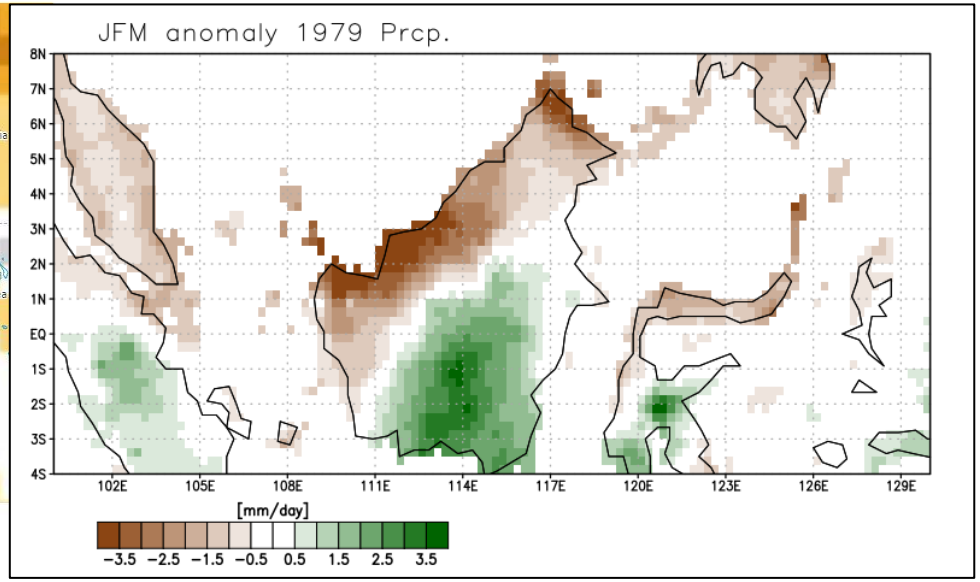

Thank you.

Post Processing

- **Real observation precipitation:**

APHRODITE gridded station precipitation (0.25 by 0.25)





Compare the grid size!