

Introduction to CLIK

(<http://clik.apc21.net>)

Jiyun Seo
Doo-Young Lee | Hye-Jin Park

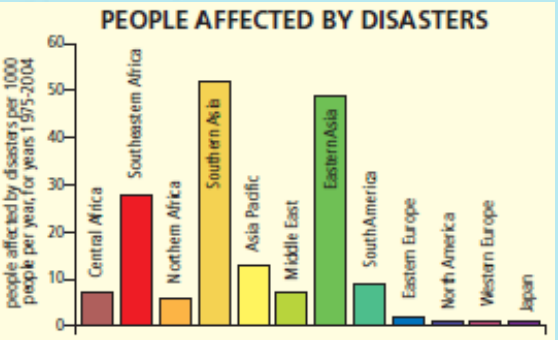
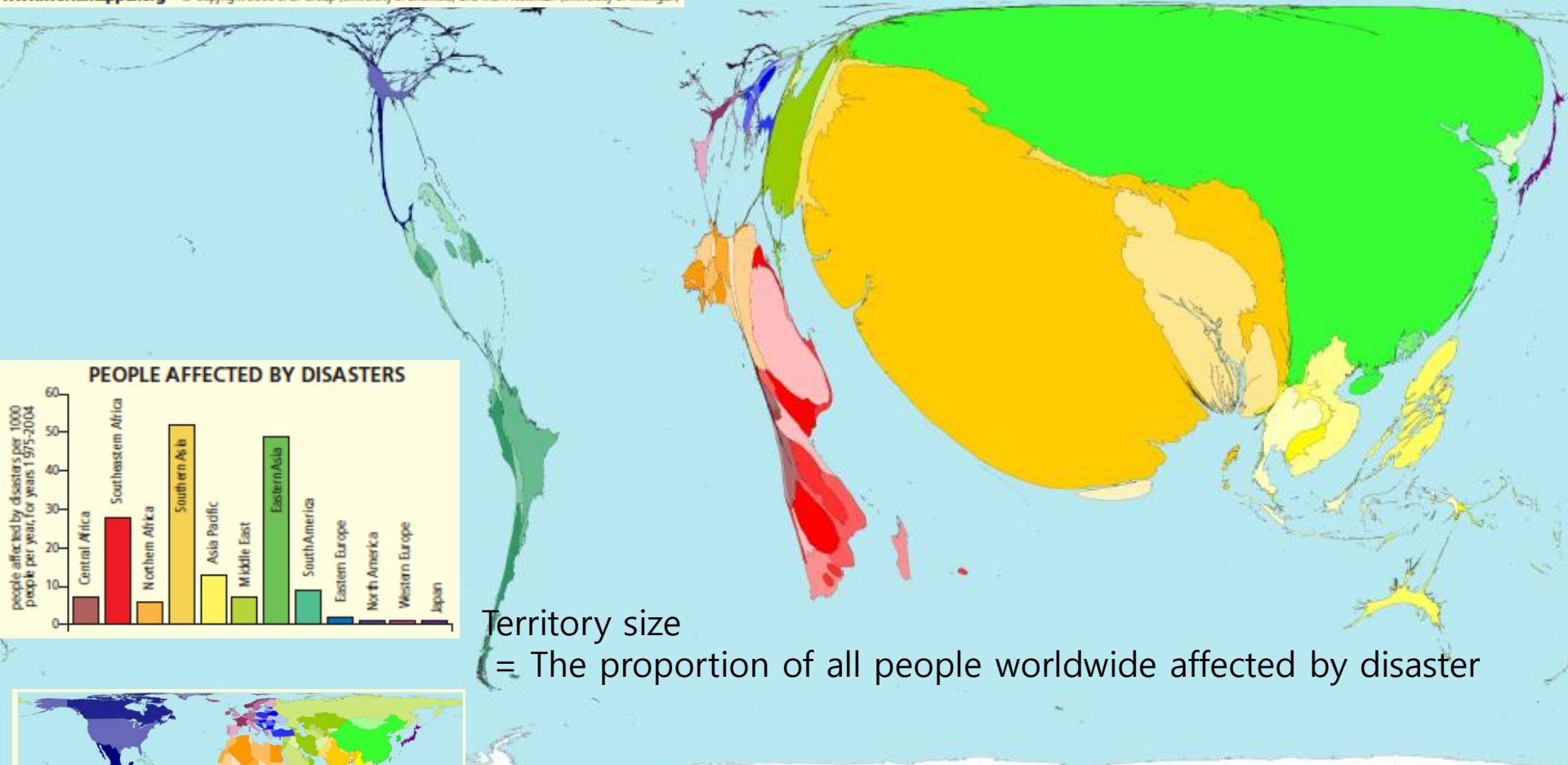


Outline

- What is CLIK?
 - Background
 - Introduction to ADSS
 - Introduction to CLIK
 - Configuration of CLIK
- How to use CLIK?
 - CLIK : Getting Started
 - How to use Data Library of CLIK

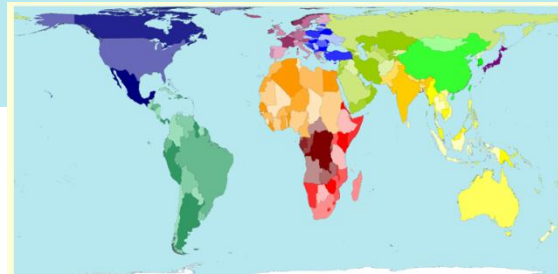
Affected by Disasters

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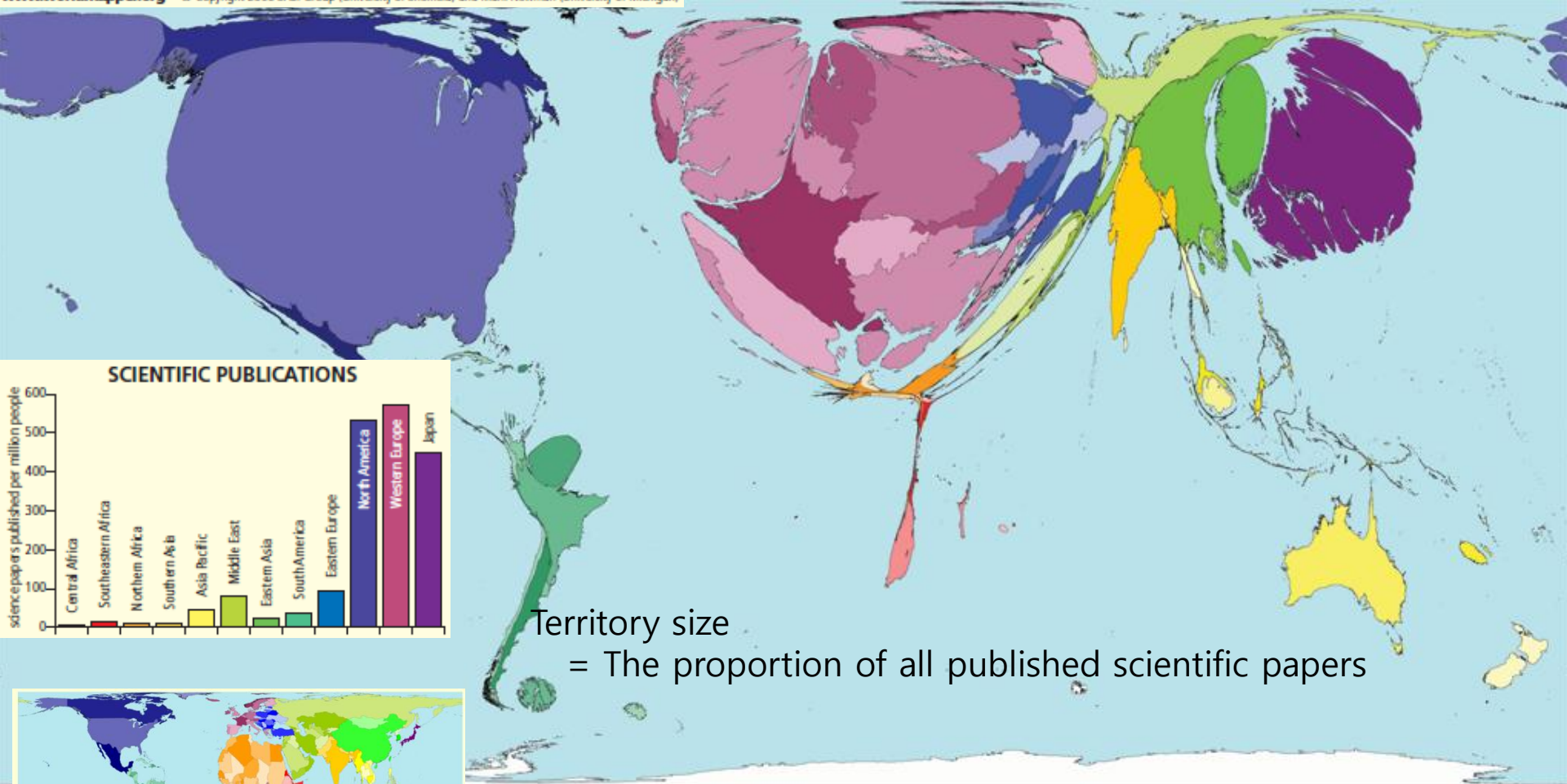
Territory size
= The proportion of all people worldwide affected by disaster

Disasters mostly affect developing economies many of which have poor infrastructure for climate prediction.

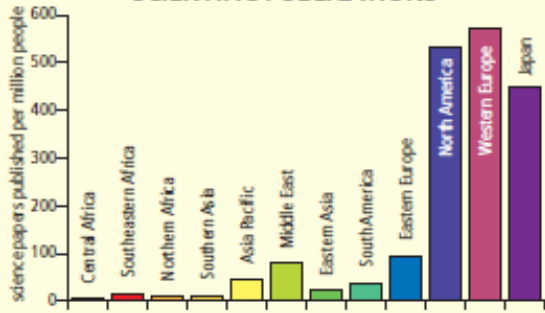


Science Research

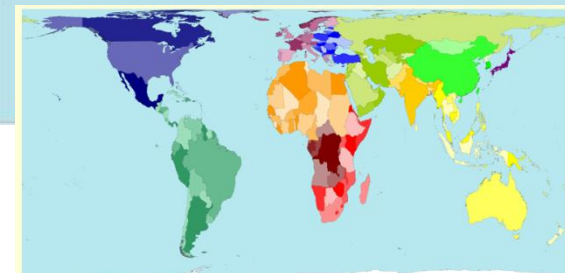
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SCIENTIFIC PUBLICATIONS



Territory size
= The proportion of all published scientific papers



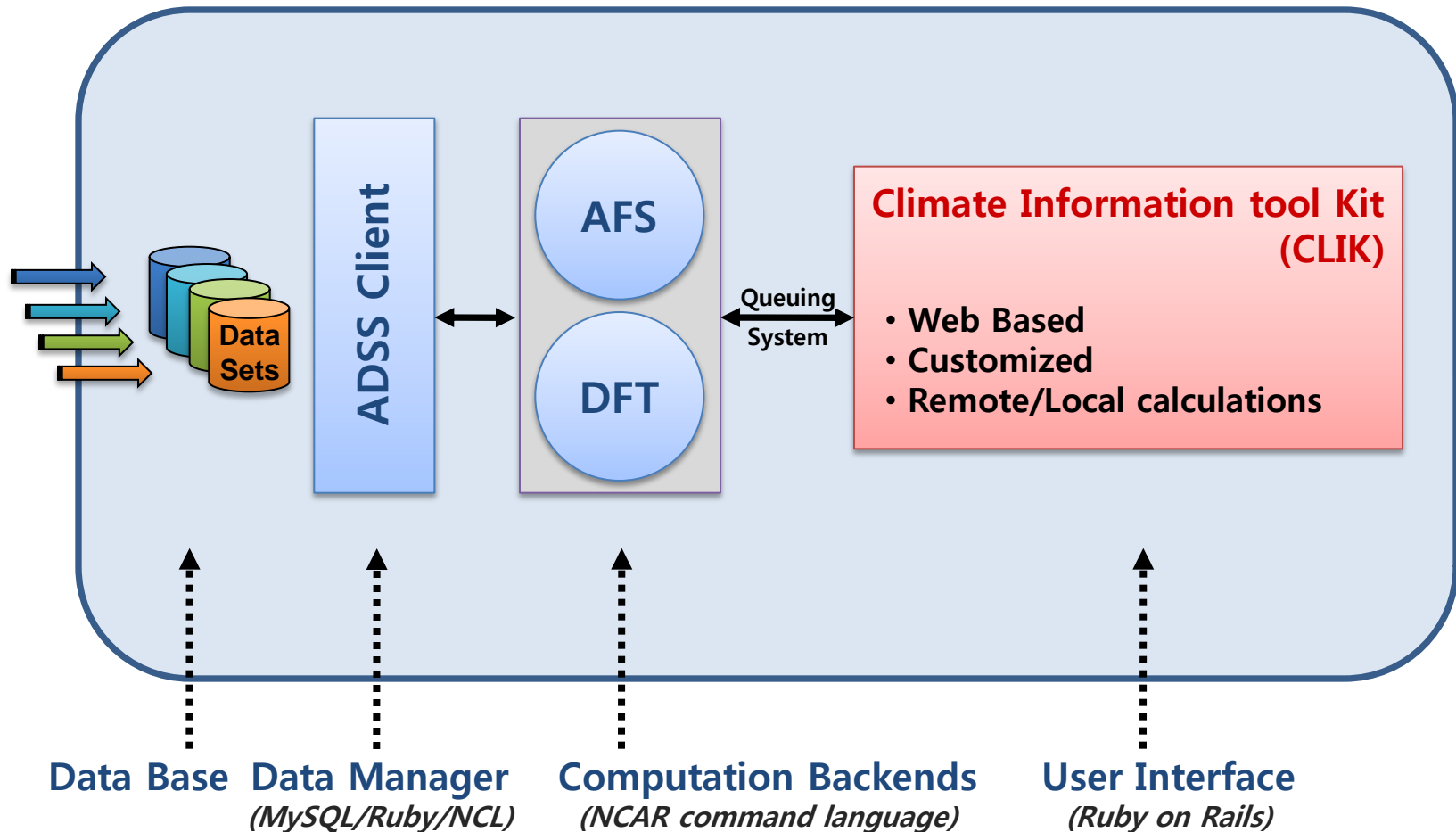


APCC mission

- **Facilitating the share of high-cost climate data and information to minimize economic and human losses due to natural disasters**
- **Capacity building in climate prediction and sustainable social and economic applications of climate information**

APCC Climate Application System

APCC Climate Application System



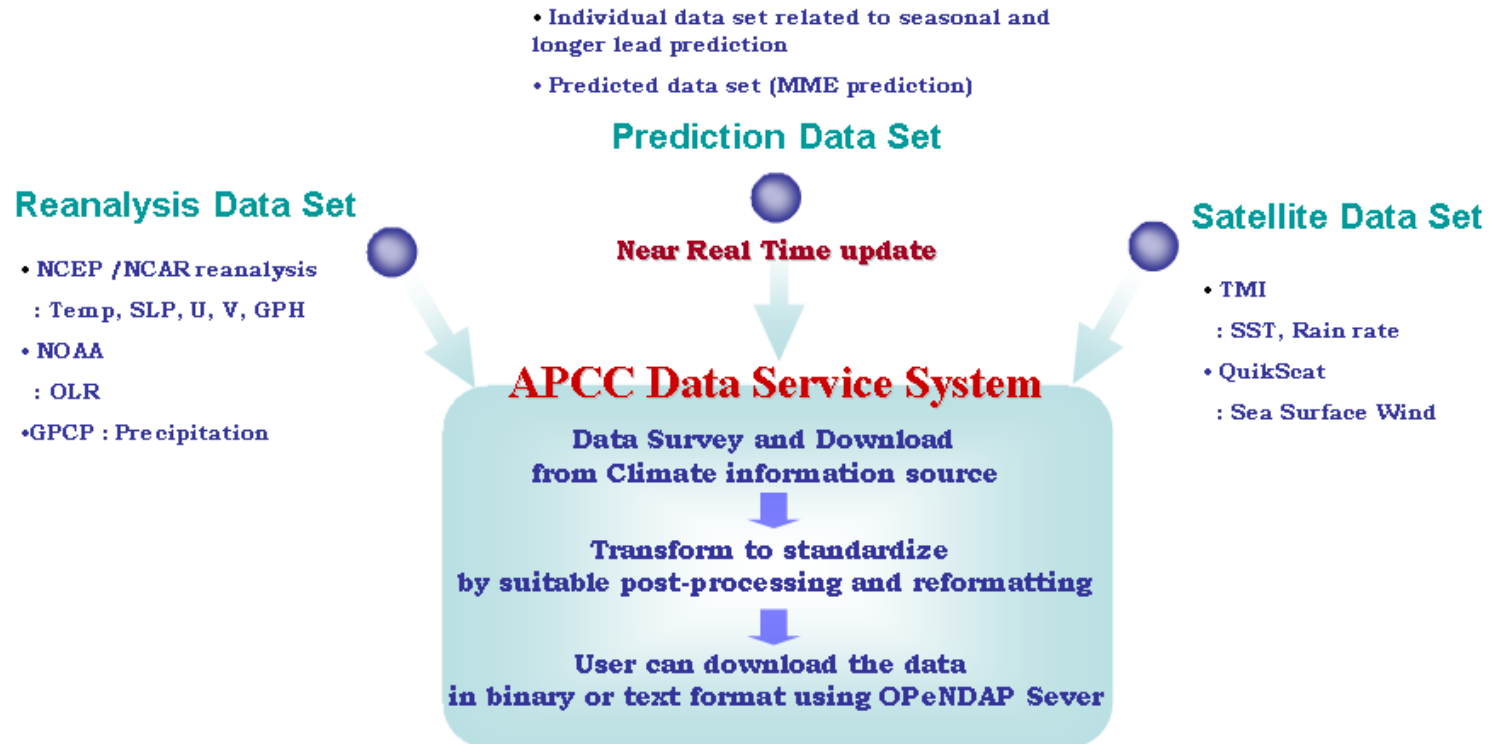
APEC Climate Center Data Service System (ADSS)

What is ADSS?

ADSS: APCC Data Service System

- Constructed for **real time climate monitoring** and **digital data service** to APEC members
- Be of great serve for APCC to play an important role as **a hub of data service center**
- **To provide a comprehensive set of model and observational climate data**, in order to establish a scientific basis for climate prediction.
- **To monitor climate information** using near real-time in situ observation and prediction data interfaces on the webpage for various users.

What is ADSS?



OPeNDAP server enables easy and flexible access to APCC data for users

Provide data

End User Communities

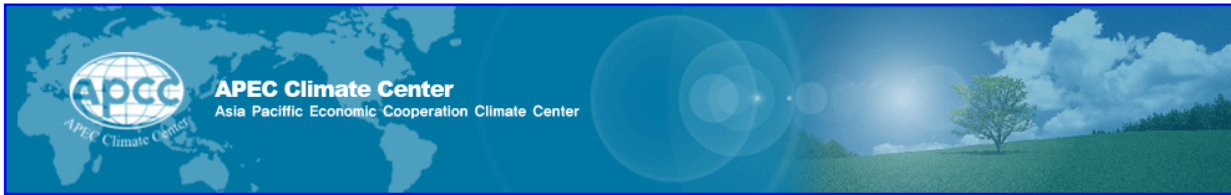
- for near real-time climate monitoring
- to initialize seasonal/subseasonal forecasts
- to facilitate research into seasonal/subseasonal predictability and prediction

List of data served on OPeNDAP

List	Explanation	Variables	Resolution	Periods
TMI	TRMM (Tropical Rainfall Measuring Mission satellite) Microwave Imager	Sea Surface Temperature Rain rate	All images cover a global region extending from 40S to 40N at a pixel resolution of 0.25 deg (~25 km).	Jun. 2006 ~ present
QuikScat	The microwave scatterometer SeaWinds was launched on the QuikBird satellite in June 1999. We refer to this instrument as QuikScat (or QSCAT) to distinguish it from the nearly identical SeaWinds scatterometer on Midori-II (ADEOS-II), launched December, 2002.	Sea Surface Wind	3-day time averaged files are byte arrays of size 1440 x 720 x 3 (longitude, latitude, parameter)	Jan. 2006 ~
NCEP	The NCEP/NCAR Reanalysis 1 project is using a state-of-the-art analysis/forecast system to perform data assimilation using past data from 1948 to the present.	Air temperature Sea level pressure Winds Geopotential heights	2.5 degree x 2.5 degree global grids 17 Level (144x73x17) T62 Gaussian grid with 192x94 points	Jan. 1979 ~
NOAA	Daily, non-interpolated Outgoing Longwave Radiation (OLR) data from NCAR archives	Outgoing Longwave Radiation	2.5 degree latitude x 2.5 degree longitude global grid (144x73).	Jan. 1986 ~
MME	Climate prediction and hindcast datasets from APCC participating models	850 hPa Temperature Precipitation 500 hPa Geopotential height	2.5 degree x 2.5 degree global grids	Each season

How to use ADSS ?

<http://cis.apcc21.net>



[Login](#) | [Register](#) | [Contact Us](#)

APCC Data Service System (ADSS)

Data Service System was constructed for real time climate monitoring and digital data service to APEC members. This system will be of great serve for APCC to play an important role as a hub of data service center. The major goal of setting up of data service system is to provide a comprehensive set of model and observational climate data, in order to establish a scientific basis for climate prediction. The second is to monitor climate information using near real-time in situ observation and prediction data interfaces on the webpage for various users.

OPeNDAP Service allows user to cut and slice data as needed

Currently Available Data Set

NCEP	Info	OPeNDAP	FTP
NCEP_SFC	Info	OPeNDAP	FTP
NOAA_OLR	Info	OPeNDAP	FTP
TMI	Info	OPeNDAP	FTP
QuikScat	Info	OPeNDAP	FTP
GPCP	Info	OPeNDAP	FTP
MME	Info	OPeNDAP	FTP

Conventional FTP Service is also provided

Today 3 Total 2134



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Fax:82-51-668-7473 E-mail:cis@apcc21.net Copyright(c) APCC All rights reserved.

How to use ADSS ?

Visiting ADSS



APCC Data Service System (ADSS)

Data Service System was constructed for real time climate monitoring and digital data service to APEC members. This system will be of great serve for APCC to play an important role as a hub of data service center. The major goal of setting up of data service system is to provide a comprehensive set of model and observational climate data, in order to establish a scientific basis for climate prediction. The second is to monitor climate information using near real-time in situ observation and prediction data interfaces on the webpage for various users.

Currently Available Data Set

NCEP	Info	OPeNDAP	FTP
NCEP_SFC	Info	OPeNDAP	FTP
NOAA_OLR	Info	OPeNDAP	FTP
TMI	Info	OPeNDAP	FTP
QuikScat	Info	OPeNDAP	FTP
AVISO	Info	OPeNDAP	FTP

Today 2 Total 21

APCC APEC Climate Center National Pension Corporation Bldg.
Yeosu-ro 291-dong Yeosu-si Jeon-sul Korea Tel: 82-51-669-7470-2
Fax: 82-51-669-7473 E-mail: cis@apcc21.net Copyright(C) APCC All rights reserved.

<http://cis.apcc21.net>



APEC Climate Center

Contents of /

Name	Last modified	Size	Response Links
NCEP/	2007-05-11 02:54:16	-	- - - - -
NCEP_SFC/	2007-03-18 09:42:59	-	- - - - -
NOAA_OLR/	2006-12-04 10:05:24	-	- - - - -
QuikScat/	2006-12-03 10:57:29	-	- - - - -
TMI/	2006-12-03 10:57:29	-	- - - - -

THREDDS Catalog [HTML](#) [XML](#)

Hyrax development sponsored by [NSF](#), [NASA](#) and [NOAA](#)

[OPeNDAP Hyrax \(1.1.0\) Documentation](#)

Visiting ADSS



APEC Climate Center

Contents of /TMI/

Name	Last modified	Size	Response Links
Parent Directory		-	- - - - -
Daily/	2007-07-03 07:07:34	-	- - - - -
Monthly/	2007-05-31 08:42:15	-	- - - - -

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[OPeNDAP Hyrax \(1.1.0\) Documentation](#)



APEC Climate Center

Contents of /TMI/Daily/

Name	Last modified	Size	Response Links
Parent Directory		-	- - - - -
Anonymous/	2007-07-03 07:07:34	-	- - - - -
Backdate/	2007-03-06 03:40:03	-	- - - - -
ClimateToLow/	2006-12-08 10:17:14	-	- - - - -
ISV/	2007-03-05 04:08:29	-	- - - - -
Losses/	2007-09-11 07:06:44	-	- - - - -
Mean/	2007-04-16 02:42:37	-	- - - - -
mo_avg/	2007-06-29 07:14:35	-	- - - - -
test/	2007-07-02 10:01:57	-	- - - - -

THREDDS Catalog [HTML](#) [XML](#)

Hyrax development sponsored by [NSF](#), [NASA](#) and [NOAA](#)

[OPeNDAP Hyrax \(1.1.0\) Documentation](#)



APEC Climate Center

Contents of /TMI/Daily/Mean/

Name	Last modified	Size	Response Links
Parent Directory		-	- - - - -
2006/	2007-03-05 07:12:23	-	- - - - -
2007/	2007-03-10 07:04:03	-	- - - - -

THREDDS Catalog [HTML](#) [XML](#)

Hyrax development sponsored by [NSF](#), [NASA](#) and [NOAA](#)

[OPeNDAP Hyrax \(1.1.0\) Documentation](#)

How to use ADSS ?

1. From FTP (NC format)

wget <ftp://cis.apcc21.net/TMI/Daily/Mean/2008/sst.nc>

2. From OPeNDAP (Grads binary format, but need ctl file) – possible to slice

gradsdods -lc 'sdfopen http://cis.apcc21.net:8080/.opendap/MME/FORECAST/SCM/OCT/2008/prec.nc'

q file	(file information)
set gxout fwrite	(open fwrite - writing option)
set fwrite prec.gdat	(configure a file name)
set z 1	(configure a dimension)
set x 1 144	(same as set lon 0 360)
set y 1 73	(same as set lat -90 90)
set t 1 3	
d prec	(variable name)
disable fwrite	(close fwrite)

How to use ADSS ?

3. From OPeNDAP (NC format using NCL) – possible to slice

```

ncl
aa
  =addfile("http://cis.apcc21.net:8080/opendap/MME/FORECAST/SCM/OCT/2008/pr
  ec.nc","r")
bb = addfile("prec.nc","c")          (create file)
printVarSummary(aa)                 (file information)
var = aa->prec                       (read variable of file aa)
bb->prec=var                          (write variable in file bb)

```

=====

Ex) For getting a sliced dataset – NCL starts from 0 in dimension unlike Fortran and Grads.

☞ var=aa->prec(:,20:52,:)
Grads : set x 21 53

How to use ADSS ?

4. From OPeNDAP (Grads binary format using NCL) – possible to slice

```
ncl
```

```
aa
```

```
=addfile("http://cis.apcc21.net:8080/.opendap/MME/FORECAST/SCM/OCT/2008/pr  
ec.nc","r")
```

```
printVarSummary(aa)
```

(file information)

```
var = aa->prec
```

(read variable of file aa)

```
fbinrecwrite("prec.gdat", 0, var)
```

(write variable of grads binary format)

```
=====
```

Ex) For getting a sliced dataset – NCL starts from 0 in dimension unlike Fortran and Grads.

```
☞ var=aa->prec(:,20:52,:)
```

```
Grads : set x 21 53
```

How to use ADSS ?

How to use

Example 1 :

Launch GrADS

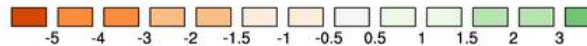
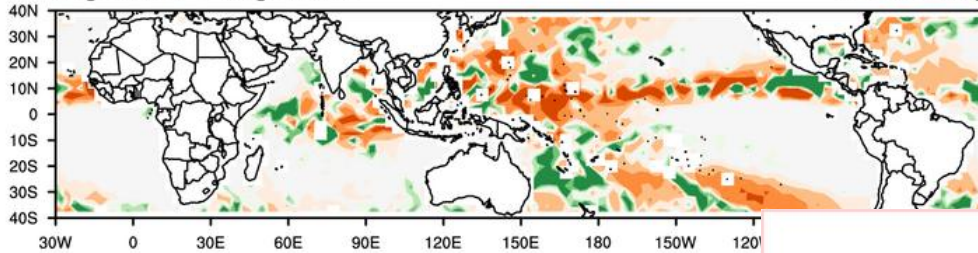
Click on the URL and paste **“Data URL”** into the interface of the client software :

cis.apcc21.net:8080/opendap/TMI/Daily/Mean/2007/sst.nc

Weekly RAIN Anomaly

Aug 23 2007 - Aug 29 2007

Unit : mm/day



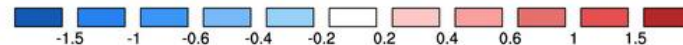
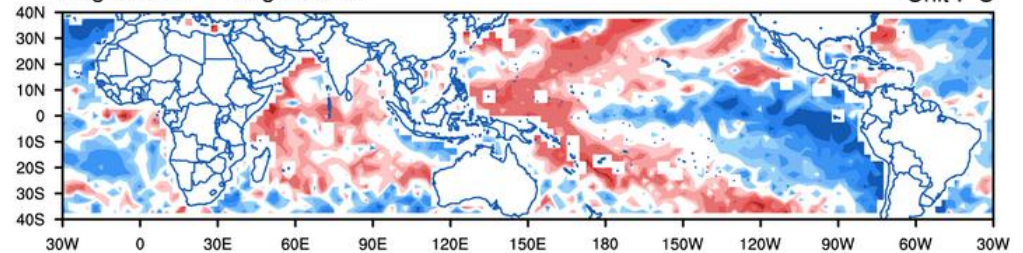
DataSource : TMI
Climatology : 1998-2005

©APEC Climate

Weekly SST Anomaly

Aug 23 2007 - Aug 29 2007

Unit : °C



DataSource : TMI
Climatology : 1998-2005

lat: Array of 32 bit Reals [lat = 0..32]

lat:
units: "degrees_north"
long_name: "latitude"
actual_range: "-40, 40"

lon: Array of 32 bit Reals [lon = 0..143]

lon:
units: "degrees_east"
long_name: "longitude"
actual_range: "0, 357.5"

sst: Grid

time: lat: lon:
_FillValue: -999.000000

How to use ADSS ?

Useful Tips

ncdump (dncdump) -options filename

-c

Show the values of coordinate variables (variables that are also dimensions) as well as the declarations of all dimensions, variables, and attribute values. Data values of non-coordinate variables are not included in the output.

-h

Show only the header information in the output, that is the declarations of dimensions, variables, and attributes but no data values for any variables.

-v var1,...,varn

The output will include data values for the specified variables, in addition to the declarations of all dimensions, variables, and attributes.

Ex)

dncdump -v time

<http://cis.apcc21.net:8080/opensdap/QuikScat/Daily/Mean/2008/uwnd.nc>

ncdump -h uwnd.nc

How to use ADSS ?

Useful Tips

ut_calendar

In order to check a data time, first you should know time information of NC data using `ncdump` or `dncdump` command.

```
ncl                                     (start ncl)
time = 39713
time@units="days since 1900-01-01"    (time units in file)
aa=ut_calendar(time,3)                 (time=variable,
3=option)
print(aa)
```

```
(0) 2008092400
```

What is CLIK ?

Climate Information Tool Kit



Goals

CLIK: CLimate Information tool Kit

- Towards **better utilization** of climate information
- Facilitate **the cooperation in the exchange of information and services** so that nations are able to cope with climate related disasters
- **Capacity building** in climate prediction and sustainable social and economic applications of climate information
- Encourage innovation in applying climate information for societal needs



Goals

- Aids users in retrieving and utilizing climate prediction data and information available from APCC data servers **in a user friendly manner** through **web-based format**
- Provides **the customized multi-model ensemble (MME) prediction** and **the statistical downscaling tool** which performs ancillary tasks of predictor variable prescreening, basic diagnostic testing, and graphing of climate data

CLIK - Internals

- Based on **NCAR Command Language (NCL) and Ruby on Rails**
- Both powerful frameworks, extensive API, easy to use existing Fortran/C codes
- Modular, can extend capabilities by writing Fortran subroutines for example
 - Sophisticated MME or downscaling schemes can be implemented by user if needed (**offline CLIK**)

Configuration of CLIK

CLIK  Prediction  Downscale  Data Library  Jobs  About [My Account](#) [Logout](#) Welcome! Jiyun Seo

Logged in successfully

Lead Month
 3Month 6Month

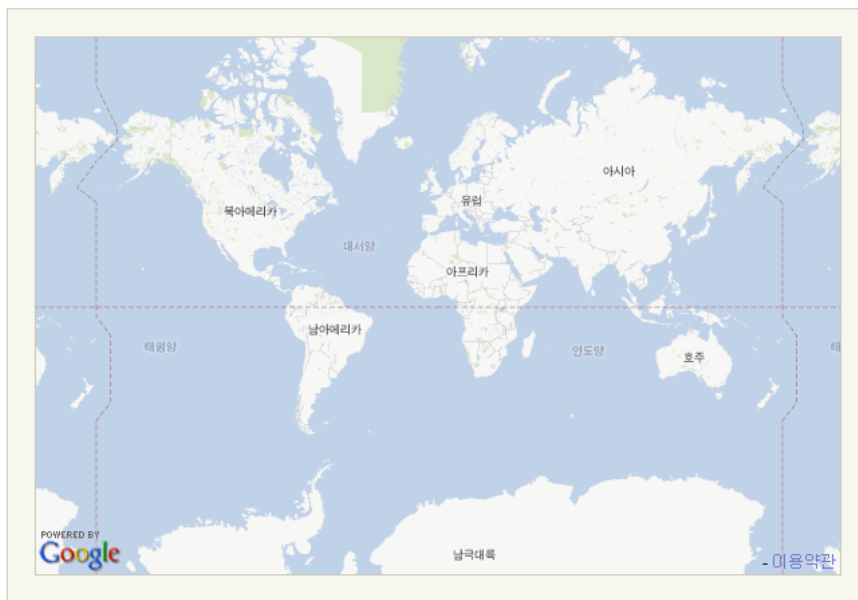
WHEN
Year: Season:

VARIABLES
 PREC T850 Z500

PROVIDER

<input type="checkbox"/> BCC	<input type="checkbox"/> COLA
<input type="checkbox"/> CWB	<input type="checkbox"/> HMC
<input type="checkbox"/> IRIF	<input type="checkbox"/> MGO
<input type="checkbox"/> MSC_CANCM3	<input type="checkbox"/> MSC_CANCM4
<input type="checkbox"/> NASA	<input type="checkbox"/> NCEP
<input type="checkbox"/> PNU	<input type="checkbox"/> POAMA

METHODS



Predict



Download



Verify

Prediction

The screenshot shows the CLIK web interface. The 'Prediction' menu item is highlighted with a red box. The interface includes a navigation bar, a sidebar with configuration options, a main content area with a Google Map, and a summary table at the bottom.

Configuration Summary:

Lead Month	3Month
When	2012 JJA
Providers	BCC, COLA, CWB, HMC, IRIF, MGO, MSC_CANCM3, MSC_CANCM4, NASA, NCEP, PNU, POAMA
Variable	T850
Method	GAUS

Map Legend:

Temperature at 850hPa (°C)

Cooler than Normal: -1.0, -0.8, -0.6, -0.4, -0.2, 0.0, 0.2, 0.4, 0.6, 0.8, 1.0

Warmer than Normal: 0.0, 0.2, 0.4, 0.6, 0.8, 1.0

- User can produce the customized MME climate forecast and view the result figure with Google map

Downscale

Configuration of CLIK

Step 1. Select dataset

Dataset name	Countries	Total station	Period(prec)	Period(temp)	Public
Korean 60 Stations	Korea, Republic of	60	1973 ~ 2008	1973 ~ 2006	Public
GHCN	Algeria, India, Angola (more)	3707	1950 ~ 2009	N/A	Public
Indonesia		0	N/A	N/A	Private
precipitation	Indonesia	4	N/A	N/A	Depends on subset
India	India, Algeria	3441	1950 ~ 2009	1950 ~ 2009	Public
			N/A	N/A	Private
			1950 ~ 2009	N/A	Private
			N/A	N/A	Private
			N/A	N/A	Private
			N/A	N/A	Private
			N/A	N/A	Private
			1990 ~ 2005	N/A	Public
			1961 ~ 2004	N/A	Private
			1961 ~ 2004	N/A	Public
			1961 ~ 2004	N/A	Private

Downscaling result

Details

PREDICAND		PREDICTOR	
YEAR/SEASON	201 D:DJF	Training Period	1980 ~ 2004
VARIABLE	PREC	VARIABLE	Z500
DATASET	Aphrodite data interpolated to Monsoon Asia Region(D:50)	MODELS	<input type="radio"/> NIMR <input checked="" type="radio"/> POAMA
REGION	120 stations	REGION	Lat: -30.0 ~ 30.0, Lon: 0.0 ~ 359.0
SIGNIFICANCE LEVEL	5 %		
MINIMUM PATTERN SCORE	0.3		

List up good result stations only

Station ID	Result	Name	Data period for PREC	Data period for TEMP
9650002	Good	Nunukan	1961 f1 ~ 2004 f12	N/A
9740601	Good	Tubelo	1961 f1 ~ 2004 f12	N/A
9743000	Good	Temate_Indonesia	1961 f1 ~ 2004 f12	N/A
9743001	Good	Jailolo	1961 f1 ~ 2004 f12	N/A
98471010	Good	Bundu_Tuhan	1961 f1 ~ 2004 f12	N/A
98471013	Good	Kota_Belud	1961 f1 ~ 2004 f12	N/A
98477001	Good	Langkon_Estate	1961 f1 ~ 2004 f12	N/A
98477002	Good	Kudat	1961 f1 ~ 2004 f12	N/A
98477003	Good	Pitas_Estate	1961 f1 ~ 2004 f12	N/A

Station & Prediction Result (click each image to enlarge)

Linear Regression of station on observed predictor

Linear Regression of station on model predictor

Seasonal forecast of station

Station's Location

- User can upload their regional station data and make a downscaled forecast

Data Library



Models for Lead Month; 3 / Models for Lead Month; 6

No	Provider	Economy	Variables	Model Designation	SST Specification (Hindcast/Forecast)	Ensemble	Data
1	BCC	China	PREC T850 Z500	NCC CGCM T63L16	Predicted SST/ Predicted SST	8	Download
2	COLA	U.S.A.	T2M PREC SLP T850 U850 V850 U200 V200 Z500 OLR	COLA AGCM v2.2.5 T63L18	OISSTv2/ IRI SST Forecast	10	Download
3	CWB	Chinese Taipei	T2M PREC SLP T850 U850 V850 U200 V200 Z500	CWB T42L18	OPG SST from CWB/ OPG SST from CWB	10	Download
4	GCPS	Republic of Korea	T2M PREC SLP T850 U850 V850 U200 V200 Z500	GCPS T63T21	KMA/SNU SST Forecast/ KMA/SNU SST Forecast	4	Download
5	GDAPS_F	Repulic of Korea	T2M PREC SLP T850 U850 V850 U200 V200 Z500	GDAPS T106L21	KMA/SNU SST Forecast/ KMA/SNU SST Forecast	20	Download
6	HMC	Russia	T2M PREC SLP T850 Z500	SL-AV 1.125 x 1.406, L28	Persistent SST/ Persistent SST	10	Download
7	IRIF	U.S.A.	T2M SST PREC SLP T850 U850 V850 U200 V200 Z500 OLR	ECHAM4.5 T42L19	Observed SST/ Pr	24	Download
8	MGO	Russia	T2M SST PREC SLP T850 U850 V850 Z500 OLR	MGOAM2 T42L14	Ob Pe		
9	MSC_CANCM3	Canada	PREC T850 Z500 T2M SLP U850 V850 U200 V200	CanCM3 AGCM3(T63L31) OGCM4(1.41x0.94,L40)	Pre Pr		
10	MSC_CANCM4	Canada	PREC T850 Z500 T2M SLP U850 V850 U200 V200	CanCM4 AGCM4(T63L35) OGCM4(1.41x0.94,L40)	Pre Pr		
11	MSC_GEM	Canada	PREC T850 Z500 T2M SLP U850 V850 U200 V200	RPN GEMCLIM v3.2.1 2.0 x 2.0, L50	Persist Persi		
12	MSC_GM2	Canada	PREC T850 Z500 T2M SLP U850 V850 U200 V200	CCCma AGCM2 T32, L10	Persist Persi		
13	MSC_GM3	Canada	PREC T850 Z500 T2M SLP U850 V850 U200 V200	CCCma AGCM2 T63, L32	Persist Persi		
14	MSC_SEF	Canada	PREC T850 Z500 T2M SLP U850 V850 U200 V200	RPN SEF T95, L27	Persist Persi		
15	NASA	U.S.A.	T2M SST PREC SLP T850 U850 V850 U200 V200 Z500 OLR	NASA-GSFC 2.5 x 2.0, L34	Pe Pr		
16	NCEP	U.S.A.	T2M SST PREC SLP T850 U850 V850 U200 V200 Z500 OLR	NCEP CFS T62L64	Pre Pr		
17	NIMR	Repulic of Korea	PREC SLP T850 U850 V850 U200 V200 Z500	METRI AGCM 5.0 x 4.0, L17	Pers Per		
18	PNU	Republic of Korea	PREC T850 Z500 T2M SLP U850 V850 U200 V200 OLR SST	PNU CGCM V1.0 T42L18	Pre Pr		
19	POAMA	Australia	T2M SST PREC SLP T850 U850 V850 U200 V200 Z500 OLR	POAMA 1.5 T47L17	Pre Pr		

- User can download the forecast and hindcast digital data of the available GCM provided by APCC



Models for Lead Month; 3 / Models for Lead Month; 6

No	Provider	Economy	Variables	Model Designation	SST Specification (Hindcast/Forecast)	Ensemble	Data
1	BCC	China	PREC T850 Z500	NCC CGCM T63L16	Predicted SST/ Predicted SST	8	Download
2	COLA	U.S.A.	T2M PREC SLP T850 U850 V850 U200 V200 Z500 OLR	COLA AGCM v2.2.5 T63L18	OISSTv2/ IRI SST Forecast	10	Download

Variables	<input type="radio"/> T2M	<input type="radio"/> PREC	<input type="radio"/> SLP	<input checked="" type="radio"/> T850	<input type="radio"/> U850	<input type="radio"/> V850	<input type="radio"/> U200
	<input type="radio"/> V200	<input type="radio"/> Z500	<input type="radio"/> OLR				
Mode	<input checked="" type="radio"/> FORECAST	<input type="radio"/> HINDCAST					
Month	<input checked="" type="radio"/> JAN	<input type="radio"/> FEB	<input type="radio"/> MAR	<input type="radio"/> APR	<input type="radio"/> MAY	<input type="radio"/> JUN	<input type="radio"/> JUL
	<input type="radio"/> AUG	<input type="radio"/> SEP	<input type="radio"/> OCT	<input type="radio"/> NOV	<input type="radio"/> DEC		
Years	From <input type="text" value="2007"/> To <input type="text" value="2012"/>						
Type	<input checked="" type="radio"/> NetCDF	<input type="radio"/> ASCII					

[Download](#)

Jobs

Configuration of CLIK

Last updated at : 2012/01/25 11:43:45 KST

JOB ID	TYPE	STATE	RESULT DATA	CREATED	UPDATED
4259	Downscaling	queued	-	2012/01/25 11:30 KST	2012/01/25 11:30 KST
4258	Downscaling	success	-	2012/01/24 23:07 KST	2012/01/25 01:10 KST
3227	Prediction	success	Download	2011/10/28 18:04 KST	2011/10/28 18:05 KST
3217	Prediction	success	Download	2011/10/28 10:50 KST	2011/10/28 10:51 KST
2081	Verification	success	Download	2010/05/20 13:58 KST	2010/05/20 13:59 KST
2080	Prediction	success	Download	2010/05/20 13:56 KST	2010/05/20 13:56 KST
2079	Prediction	success	Download	2010/05/20 11:57 KST	2010/05/20 11:57 KST

Total : 7 Page : 1 / 1 |

JOB DETAIL

ID 4258
 TYPE Downscaling (ID:999)
 STATE success

PREDICTAND		PREDICTOR	
YEAR/SEASON	2012/JFM	Training Period	1982 ~ 2003
VARIABLE	TEMP	VARIABLE	SLP
DATASET	Korean 60 Stations (ID:1)	MODELS	GDAPS_F, MSC_GEM, MSC_GM2, MSC_GM3, MSC_SEF, NASA, NCEP, POAMA
REGION	60 stations	REGION	Lat: -41.798 ~ 71.301 Lon: -126.211 ~ 58.359

SIGNIFICANCE LEVEL 5 %
 MINIMUM PATTERN SCORE 0.3

Last updated at : 2012/01/25 11:43:45 KST

JOB ID	TYPE	STATE	RESULT DATA	CREATED	UPDATED
4259	Downscaling	queued	-	2012/01/25 11:30 KST	2012/01/25 11:30 KST
4258	Downscaling	success	-	2012/01/24 23:07 KST	2012/01/25 01:10 KST
3227	Prediction	success	Download	2011/10/28 18:04 KST	2011/10/28 18:05 KST
3217	Prediction	success	Download	2011/10/28 10:50 KST	2011/10/28 10:51 KST
2081	Verification	success	Download	2010/05/20 13:58 KST	2010/05/20 13:59 KST
2080	Prediction	success	Download	2010/05/20 13:56 KST	2010/05/20 13:56 KST
2079	Prediction	success	Download	2010/05/20 11:57 KST	2010/05/20 11:57 KST

Total : 7 Page : 1 / 1 |

JOB DETAIL

ID 3227
 TYPE Prediction (ID:1940)
 STATE success

LEAD MONTH 3Month
 PROVIDERS BCC COLA CWB GDAPS_F IRIF MGO MSC_GEM MSC_GM2 MSC_GM3 MSC_SEF NCEP POAMA
 YEAR / SEASON 2011 / NDJ
 VARIABLE T850
 METHOD GAUS

FEEDBACK
 CREATED AT 2011/10/28 18:04 KST
 UPDATED AT 2012/01/17 17:42 KST



View Result

FEEDBACK

CREATED AT 2012/01/24 23:07 KST
 UPDATED AT 2012/01/25 01:10 KST



View Result Edit

Tracker | Feedback Icons by Dylcons

• Time consuming jobs are off-loaded to backend (Queue system)

About



CLIK: Climate Information Tool Kit

is a web-based climate information toolkit based on NCAR command language(NCL) and the Ruby on Rails(RoR) frame work

- CLIK facilitate generation of climate information
- CLIK is web-based tool for data retrieval and multi model prediction
- CLIK is an integrated collection of algorithms/framework for various climate related calculations

Introduction

In order to promote better utilization of climate information, APCC is developing a web-based Information tool Kit) will aid users in retrieving and utilizing climate prediction data and information.

The data processing engines powering CLIK at the backend are built on the NCAR Command Language (NCL) for data manipulation and visualisation.

The web interface of CLIK is built on the popular web building framework known as Ruby on Rails (RoR) and an extensive API (Application Program Interface) and allows easy incorporation of existing Forecasting tools.

Both frameworks are being extensively used at APCC. The automated forecast system(AFS) has been in operational use at APCC since January 2008.

Ruby on Rails (RoR) is a relatively new entry into the APCC workflow. RoR is an open-source, object oriented programming language with a focus on simplicity and productivity.

It has an elegant syntax that is natural to read and easy to write. Ruby is a language of choice for many developers as it borrows the best features of its favorite languages (Perl, Smalltalk, Eiffel, Ada, and Lisp) to form a new language that balances expressiveness with simplicity.

RoR is based on the the Model-View-Control pattern of separation and provides a full stack needed to create databasebacked web applications.

It enforces good design principles, consistency of code across your organization, and promotes the use of REST. Since then, it has become a serious and popular alternative to traditional web development. The request and response in the controller, to the domain model wrapping the data.

Further information on RoR may be found at www.rubyonrails.org and NCL at ncl.ucar.edu

Developers

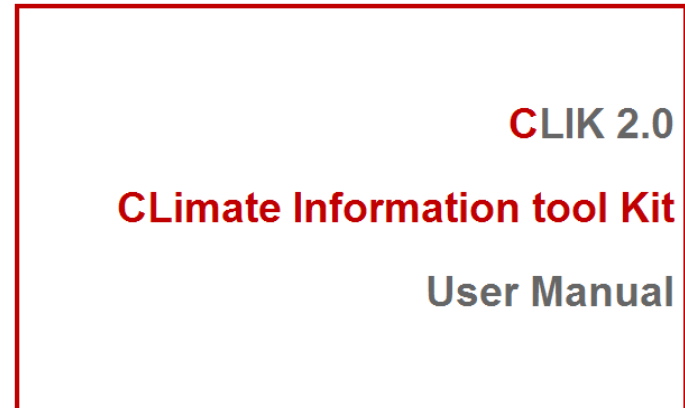
- Kyong-Hee An, Climate Applications team, APEC Climate Center
- Saji N. Hameed, ARC-ENV, Center for Advanced Information Science and Technology
- Jin-young Heo, Climate Applications team, APEC Climate Center

User Manual

- PDF Version
- HTML Version



1. Welcome
2. Introduction
3. Getting Started
4. Multi-Model Ensemble Seasonal Prediction
5. Downscaled Forecast into Station Scale
6. Jobs in CLIK
7. Data Library



Kyong-Hee An
Jin-Young Heo
Saji N. Hameed

1. Welcome to the Help for CLIK version 2.0

This user manual covers all CLIK subjects to let you work fine with the CLIK. You can find the available subjects in the Table of contents. If you are new to CLIK, the topics in the **Getting started** section will introduce you to the platform, and provide a foundation as you begin to extend CLIK.

CLIK is more stabilized and the useability is much improved in version 2.0. The main difference with the previous version is the addition of downscaling functionality.

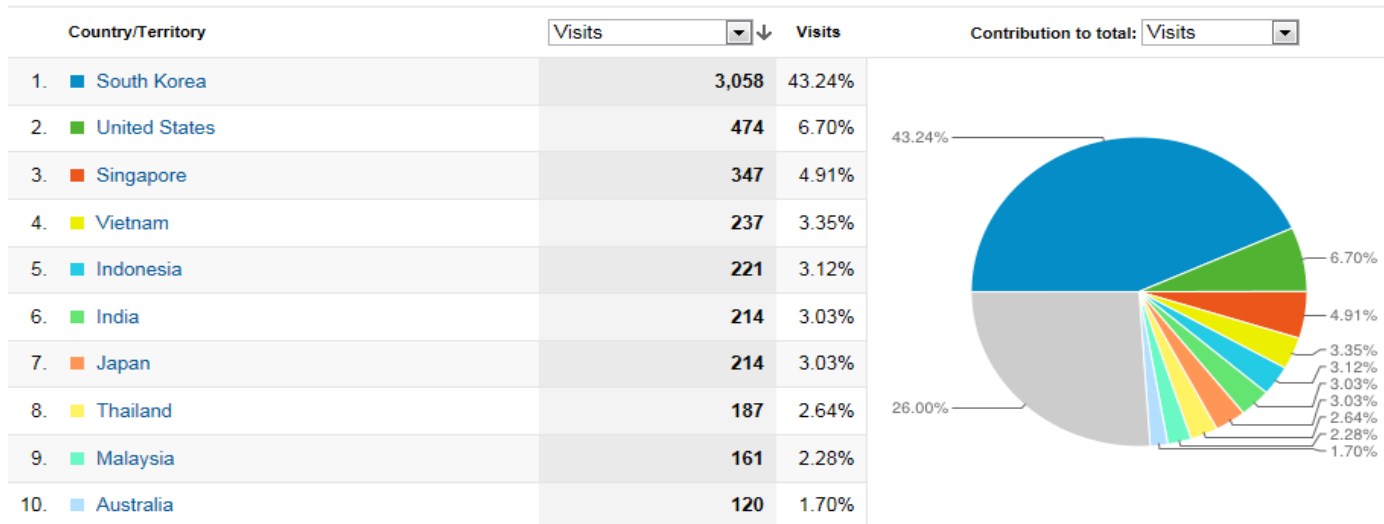
We hope you will encourage us by utilizing the CLIK services and providing us prompt feedback.

December 28, 2010

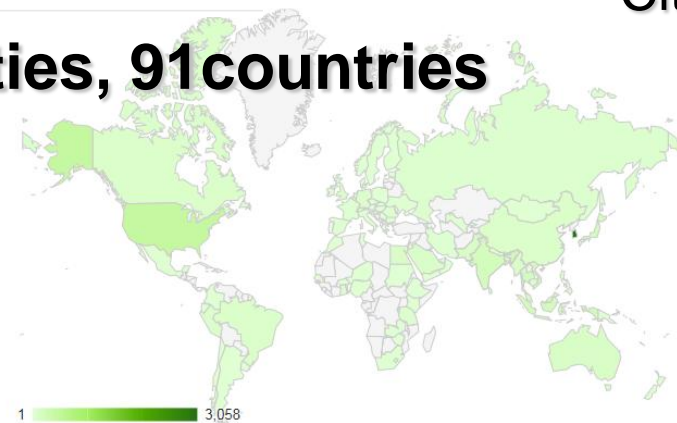
- User can see the information about the CLIK with edition, version and the technical reference

Web Statistics of CLIK service

Country/Territory



- Visits of total 7,072 times in 539 cities, 91 countries



City

How to use CLIK ?

<http://clik.apcc21.net>



CLIK – Getting Started

- **Creating your account** <http://clik.apcc21.net>
[or 210.98.49.68](http://210.98.49.68)
 1. Click on “Sign up as a new user”. This brings a page for your registration.
 2. Fill in the form and write a purpose of use.
 3. Agree with “Terms of Data Use” and then you can see the “Sign Up” button.
 4. You can see the below message and follow the instruction.
We just sent an email to “YOUR E-MAIL ADDRESS” to verify your email address. you must visit the link in that email to finish signing up.
 5. Log in with your ID and password.

CLIK – Getting started

Creating the account

- **Creating your account**

1

CLIK Prediction Downscale Data Library Jobs About Login

Log In

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2

CLIK Prediction Downscale Data Library Jobs About Login

Sign up as a new user

Login

Name

Email

Repeat Email

Password

3

CLIK Prediction Downscale Data Library Jobs About Login

Signup complete! Please sign in to continue.

Log In

Login

Password

Stay logged in

Log in

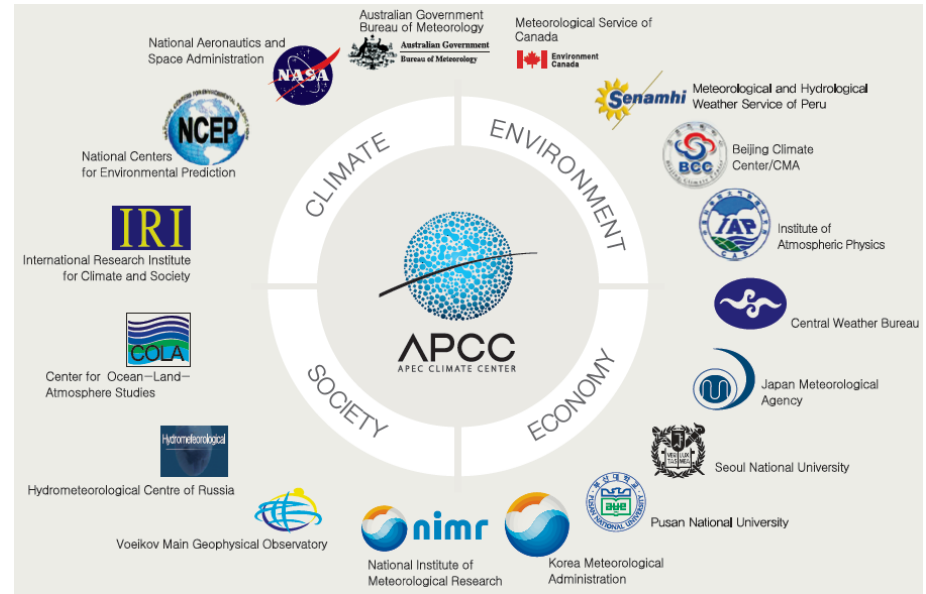
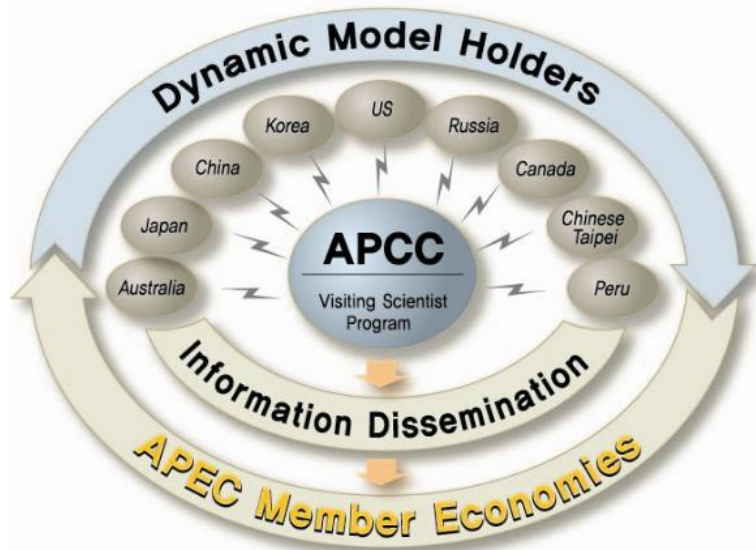
or [Sign up as a new user](#)

Lost password?

(C)2008 - 2010 APEC Climate Center Terms of use | Credit | Tracker | Feedback Icons by Drylcons

APCC data collection using CLIK data library

APCC data collection



- Collection of Dynamic ensemble seasonal prediction data from NMHS and research institutes (17 operations/institutions from 9 APEC member economies)

List of available models

CLIK



Prediction



Downscale



Data Library



Jobs



About

Models for Lead Month; 3 / Models for Lead Month; 6

No	Provider	Economy	Variables	Model Designation	SST Specification (Hindcast/Forecast)	Ensemble	Data
1	BCC	China	PREC T850 Z500	NCC CGCM T63L16	Predicted SST/ Predicted SST	8	Download
2	COLA	U.S.A.	T2M PREC SLP T850 U850 V850 U200 V200 Z500 OLR	COLA AGCM v2.2.5 T63L18	OISSTv2/ IRI SST Forecast	10	Download
3	CWB	Chinese Taipei	T2M PREC SLP T850 U850 V850 U200 V200 Z500	CWB T42L18	OPG SST from CWB/ OPG SST from CWB	10	Download
4	GCPS	Republic of Korea	T2M PREC SLP T850 U850 V850 U200 V200 Z500	GCPS T63T21	KMA/SNU SST Forecast/ KMA/SNU SST Forecast	4	Download
5	GDAPS_F	Repulic of Korea	T2M PREC SLP T850 U850 V850 U200 V200 Z500	GDAPS T106L21	KMA/SNU SST Forecast/ KMA/SNU SST Forecast	20	Download
6	HMC	Russia	T2M PREC SLP T850 Z500	SL-AV 1.125 x 1.406, L28	Persistent SST/ Persistent SST	10	Download
7	IRIF	U.S.A.	T2M SST PREC SLP T850 U850 V850 U200 V200 Z500 OLR	ECHAM4.5 T42L19	Observed SST/ Predicted SST	24	Download
8	MGO	Russia	T2M SST PREC SLP T850 U850 V850 Z500 OLR	MGOAM2 T42L14	Observed SST/ Persistent SST	10	Download
9	MSC_CANCM3	Canada	PREC T850 Z500 T2M SLP U850 V850 U200 V200	CanCM3 AGCM3(T63L31) OGCM4(1.41x0.94,L40)	Predicted SST/ Predicted SST	10	Download
10	MSC_CANCM4	Canada	PREC T850 Z500 T2M SLP U850 V850 U200 V200	CanCM4 AGCM4(T63L35) OGCM4(1.41x0.94,L40)	Predicted SST/ Predicted SST	10	Download
11	MSC_GEM	Canada	PREC T850 Z500 T2M SLP U850 V850 U200 V200	RPN GEMCLIM v3.2.1 2.0 x 2.0, L50	Persistent ERA40 SST/ Persistent CMC SST	10	Download
12	MSC_GM2	Canada	PREC T850 Z500 T2M SLP U850 V850 U200 V200	CCCma AGCM2 T32, L10	Persistent ERA40 SST/ Persistent CMC SST	10	Download
13	MSC_GM3	Canada	PREC T850 Z500 T2M SLP U850 V850 U200 V200	CCCma AGCM2 T63, L32	Persistent ERA40 SST/ Persistent CMC SST	10	Download
14	MSC_SEF	Canada	PREC T850 Z500 T2M SLP U850 V850 U200 V200	RPN SEF T95, L27	Persistent ERA40 SST/ Persistent CMC SST	10	Download
15	NASA	U.S.A.	T2M SST PREC SLP T850 U850 V850 U200 V200 Z500 OLR	NASA-GSFC 2.5 x 2.0, L34	Predicted SST/ Predicted SST	8	Download
16	NCEP	U.S.A.	T2M SST PREC SLP T850 U850 V850 U200 V200 Z500 OLR	NCEP CFS T62L64	Predicted SST/ Predicted SST	15	Download
17	NIMR	Repulic of Korea	PREC SLP T850 U850 V850 U200 V200 Z500	METRI AGCM 5.0 x 4.0, L17	Persistent OISST/ Persistent OISST	10	Download
18	PNU	Repulic of Korea	PREC T850 Z500 T2M SLP U850 V850 U200 V200 OLR SST	PNU CGCM V1.0 T42L18	Predicted SST/ Predicted SST	5	Download
19	POAMA	Australia	T2M SST PREC SLP T850 U850 V850 U200 V200 Z500 OLR	POAMA 1.5 T47L17	Predicted SST/ Predicted SST	15	Download

How to download the data from CLIK?

19	POAMA	Australia	T2M SST PREC SLP T850 U850 V850 U200 V200 Z500 OLR	POAMA 1.5 T47L17	Predicted SST/ Predicted SST	15	Download
Variables	<input checked="" type="radio"/> T2M <input type="radio"/> U200	<input type="radio"/> SST <input type="radio"/> V200	<input type="radio"/> PREC <input type="radio"/> Z500	<input type="radio"/> SLP <input type="radio"/> OLR	<input type="radio"/> T850	<input type="radio"/> U850	<input type="radio"/> V850
Mode	<input checked="" type="radio"/> FORECAST <input type="radio"/> HINDCAST						
Month	<input type="radio"/> JAN <input type="radio"/> AUG	<input type="radio"/> FEB <input type="radio"/> SEP	<input type="radio"/> MAR <input type="radio"/> OCT	<input type="radio"/> APR <input type="radio"/> NOV	<input type="radio"/> MAY <input type="radio"/> DEC	<input checked="" type="radio"/> JUN	<input type="radio"/> JUL
Years	From <input type="text" value="2012"/> To <input type="text" value="2012"/>						
Type	<input type="radio"/> NetCDF <input checked="" type="radio"/> ASCII						
<input type="button" value="Download"/>							

APCC data collection

- **Download the precipitation forecast data of Jun, 2012 of POAMA model**
 1. Click on “Data Library”. You can see a page listing currently available data sets.
 2. Press “Download” at most right and below column (POAMA).
 3. Now you can choose “PREC” as a variable and the “Mode” is “Forecast”.
 4. Select “Jun” as month and “Years” should be from 2012 to 2012.
 5. Choose “ASCII” as a data type and click the “Download” button. Then you can check the data in your PC’s file store.

APCC data collection

- **Download the 850hPa temperature hindcast data of Jan, 1983~2002 of NCEP model as ASCII type.**
- Q: What is the value of 850hPa temperature at the grid point 10°N of latitude and 0°E of longitude in Jan, 2000?

A: 293.11



Thank you.