Climate Information Services of APEC Climate Center (APCC)

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Trieste, 21-26 March, 2011
• Introduction of APCC

• Climate information services of APCC

• Brief plan for CORDEX data center
• 1998 – The creation of the **APEC Climate Center** was proposed at the 3rd APEC Science and Technology Ministers Meeting.

• 2005 – APEC member economies unanimously endorsed the establishment of APCC at the 1st APEC Senior Officials Meeting.

• 2009 – APEC Climate Center moved to its own building.
APCC Goals

- Facilitating the **sharing** of high-cost **climate data and information**

- **Capacity building** in prediction and sustainable social and economic applications of climate information

- Accelerating and extending socio-economic **innovation**
## Monthly update of seasonal prediction

<table>
<thead>
<tr>
<th>Day of the month</th>
<th>1~10</th>
<th>11~15</th>
<th>16~21</th>
<th>22~23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity</td>
<td>Data collection</td>
<td>Standardization &amp; quality check</td>
<td>Analysis and production</td>
<td><strong>Outlook</strong> release &amp; upload to website</td>
</tr>
</tbody>
</table>

### Precipitation for April-June 2011

![Precipitation Map](image1)

### Temperature for April-June 2011

![Temperature Map](image2)

**www.apcc21.org**
Climate Information Services

Request data/image

WEB/Application Server

Request data/image

Mass Climate Data Storage

Get necessary climate data

Send data or notify processing status

Image Processing Server

View processing status or get data/image

Request data/image
http://clik.apcc21.net

- Web-based tool for data retrieval and climate prediction
- Customized 3-MON Multi-Model Ensemble Prediction
- Produce over 1,200 MME Prediction & 600 Verification results by user requests
- 3,882 visited CLIK came from 497 cities since March 2009 and the visiting count is continuously increasing*

* Logged by Google Analytics service (http://www.google.com/analytics)
APEC Climate Center

CLIK On-line statistical downscaling feature

- User can upload/modify their own observation data for downscaling though CLIK
- CLIK provides customized downscaling feature, so user can select conditions for each downscaling

Selecting stations for downscaling

- CLIK generates downscaling result based on user’s selection with user’s observation data and MME data which many institutions contributed
- User can recognize which stations data and MME data are reasonable for downscaling of specified area through the result

Downscaling result for each station
User can find the dataset period, the list of available variables, the model designation and the ensemble number of each dynamical model.

- View the all available information for the model provider of APCC and admin can update the model dataset through the updating functionality in this page.

- Registered user also are able to download hindcast data of individual models.
APCC Data Service System (ADSS)

The APEC Climate Center Data Service System was developed for real-time climate monitoring and provision of digital data service to APEC member economies. This system underscores the role of APCC in playing an important role as a hub of climate data and services in the region. The main objective of the ADSS is to provide a comprehensive set of models and observational climate data to various researchers and users to establish a scientific basis for climate prediction. ADSS also aims to monitor climate information using near-real-time in-situ observation and prediction data in a standardized and accessible format for various users.

Currently Available Data Set

<table>
<thead>
<tr>
<th>Data Set</th>
<th>Info</th>
<th>OPeNDAP</th>
<th>FTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCEP</td>
<td></td>
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<tr>
<td>NCEP_SFC</td>
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<tr>
<td>NOAA_OLR</td>
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<td>TMI</td>
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<td>QuikScat</td>
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<td>QGCP</td>
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<td>GHCN</td>
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<tr>
<td>MME</td>
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<tr>
<td>INDIVIDUAL MODEL</td>
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</table>

OPeNDAP Service allows user to cut and slice data as needed

Conventional FTP Service is also provided

http://cis.apcc21.net
Climate Change Projections in APEC Regions & Economies

- Project Summary
- Tables

<table>
<thead>
<tr>
<th>Asia and Australia</th>
<th>North America</th>
<th>Russia</th>
<th>South America</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Brunei Darussalam</td>
<td>Canada</td>
<td>Chile</td>
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<td>China</td>
<td>Hong Kong</td>
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<td>Nepal</td>
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<td>Mexico</td>
<td>New Zealand</td>
<td>Papua New Guinea</td>
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<td>Peru</td>
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<td>Singapore</td>
<td>Vietnam</td>
</tr>
</tbody>
</table>

News / Events

[DAILY YOMIURI] Massive tsunami 'caused by quake’s shallow focus'
The massive tsunami following the Tohoku Pacific Offshore Earthquake on Friday might have been caused by the tremor's extremely Mar 13, 2011

[asahi.com] Very strong quake rattles Japan
Editor's note: We will update our earthquake news as frequently as possible on ANJ's Facebook page Mar 11, 2011

[Joongang Daily] Heavy snow continues to cause trouble along coast
First it was Gangwon, now it’s the southeastern part of the country that is struggling with heavy snowfall, as noted Feb 16, 2011

[CNN] 47 dead from flooding in the Philippines; 1.5 million affected
The death toll from flooding in the Philippines has climbed to 47, the country's national disaster.
So far,
Step forward

Brings economies together to discuss ways and do things to improve economic well being of members through better utilization of climate information

BLA BLA BLA...
ACT NOW!
Expanding current service area into Climate Change
(in collaboration with KMA)

• Regional Climate Change data and products
  (CORDEX-ASIA + …)

• Data services + CLIK feature for a few core outputs
  ✔ Huge volume compared to operational seasonal forecasts

• ~ 100TB (online), later in 2011
Thank You.
Structure

Board of directors

Director

Executive Council

Working Group

Delegations of NHMS from 20 countries

Science Advisory Committee

14 scientists around world

Administration

External affairs

Science
Climate information to Climate knowledge

**Data:**
- Observations
- GCMs
- Equations

**Information:**
- Outlook
- Forecasts
- Bulletins

**Knowledge:**
- Decisions!
- Action!

**Socioeconomic information**
- Regional, Sectoral
- ....

**Physical Information**
- Quality,
- Quantity, Format