



CLimate Information toolKit for the Pacific

User Manual Ver. 1.0

2015. 12.



APEC Climate Center

Table of Contents

1	SIGN IN.....	3
1.1	CREATE ACCOUNT	3
2	INTRO.....	8
3	PREDICTION.....	9
3.1	PREDICTION.....	9
3.2	RESULT DETAILS: PREDICT & VERIFY	1 1
3.3	RESULT DETAILS: DOWNLOAD	1 1
4	MY PAGE	1 3

1 Sign In

- The user should create his/her account for using CLIK® system.

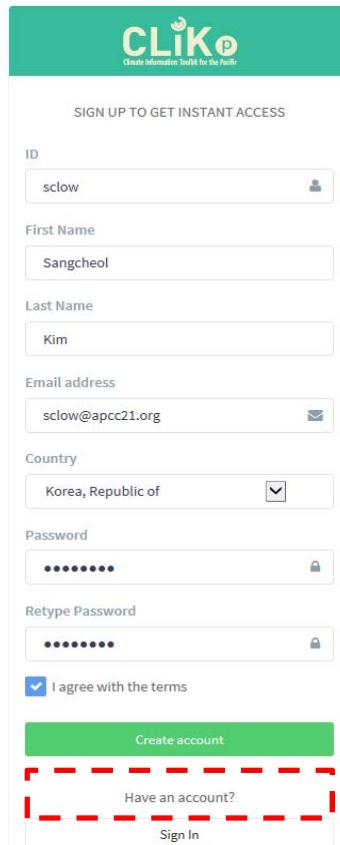
1.1 Create account

- When the user connects to the CLIK® website, there are 'Login' and 'Register' icons on the upper right corner. Click the 'Register' icon (Fig. 1) to create a new user account.



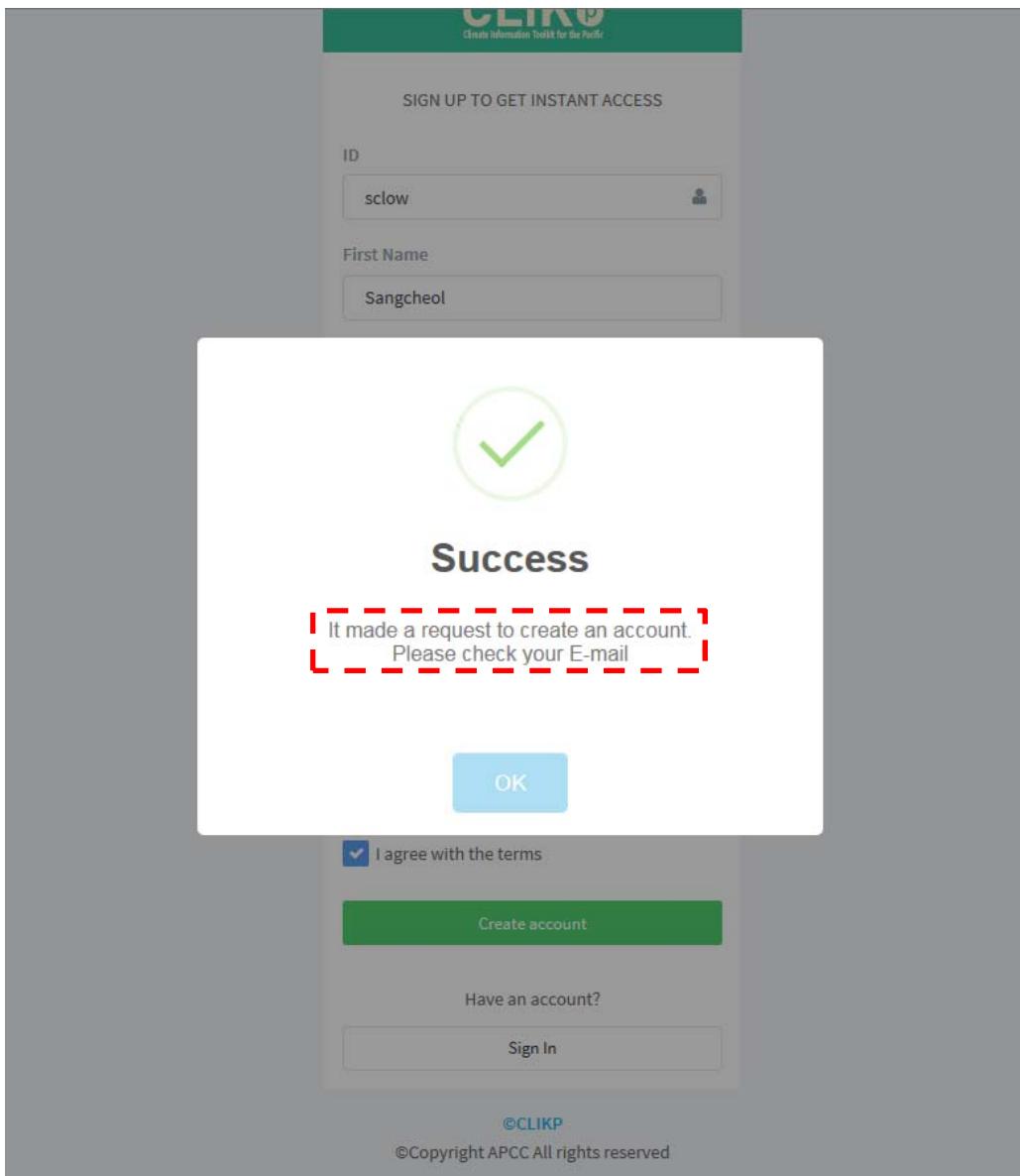
(Fig 1) Register icon

- Input the necessary user information to create an account and click 'Create account' button on the register page shown in (Fig. 2).



(Fig 2) Register page

- If the account is created successfully, a 'Success' message will be displayed as it is in (Fig 3). Also, the activation e-mail for the account is sent to the user's e-mail address.



(Fig 3) Success notification window

- (Fig 4) shows an example of the activation e-mail. The user can authenticate the new account by clicking the [LINK] in the e-mail. Then, the CLIKP® login page will appear.

[CLIKP] Web service Account Activation

보낸사람	apccclikp@gmail.com	기본 그룹	<input type="button" value="▼"/>	<input type="button" value="+추가"/>	<input type="button" value="×수신거부"/>
받는사람	<input checked="" type="checkbox"/> sclow@apcc21.org <sclow@apcc21.org>		<input type="button" value="▼"/>		<input type="button" value="▼"/>
보낸일시	2015/12/11 16:19				



Hi Sangcheol Kim,

Your CLiK Pacific account has been created. Get started now.
 Please click this [\[LINK\]](#) to activate your account, and complete your registration.
 If you have any questions, reference our [User Guide](#).

Thanks,
 Republic of Korea-Pacific Islands Climate Prediction Services Project - CLiK Pacific Team

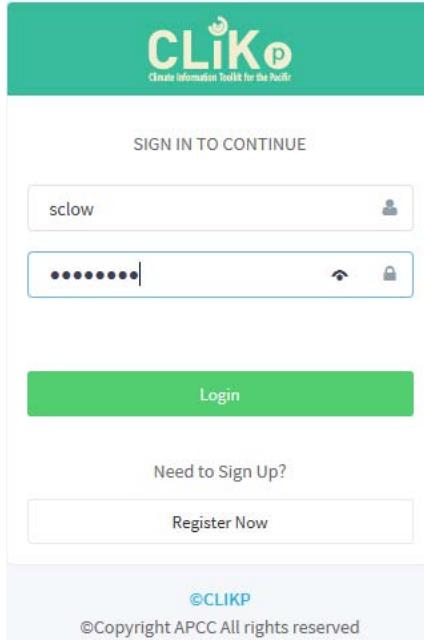
The Secretary of the Pacific Regional Environment Programme (SPREP)

P. O Box 240, Apia, Samoa. (685) 21929. www.sprep.org
 Email : at SPREP : clikpacific@sprep.org
 or at APCC : clikpacific@apcc21.org



(Fig 4) Activation of user account

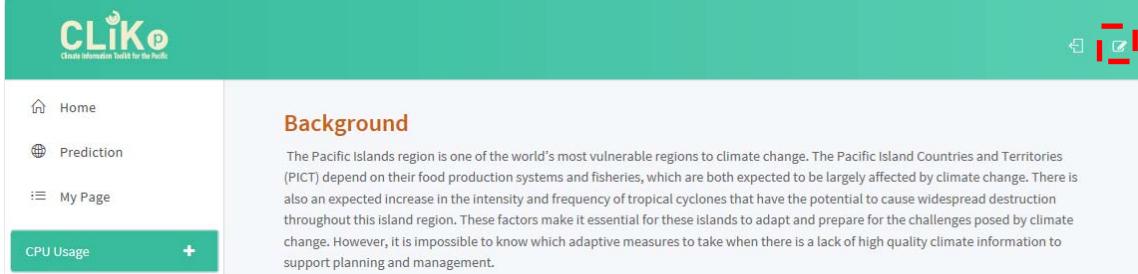
□ If the authentication is successful, the user will be able to login as shown in (Fig 5).



The login screen for CLiKp features a green header with the CLiKp logo and "Climate Information Toolkit for the Pacific". The main area has a light gray background. It contains a "SIGN IN TO CONTINUE" header, two input fields for "sclow" and a masked password, and a large green "Login" button. Below the login form is a link "Need to Sign Up?" and a "Register Now" button. At the bottom, there is a copyright notice: "©CLIKP" and "©Copyright APCC All rights reserved".

(Fig 5) Login page

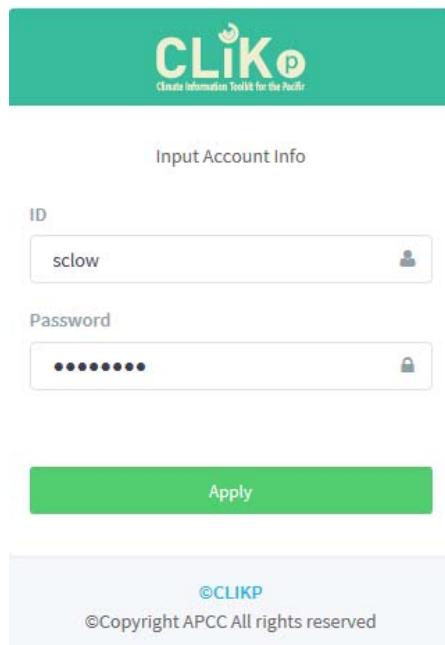
- After signing in, the user can edit his/her information by clicking the 'Edit' icon on the upper right corner (Fig 6).



The screenshot shows the CLiK® login interface. At the top, there is a green header bar with the CLiK® logo and a 'Log In' button. Below the header, there is a sidebar with links: Home, Prediction, My Page, and a 'CPU Usage' section with a '+' button. The main content area has a section titled 'Background' with text about the Pacific Islands region. In the top right corner of the main content area, there is a small 'Edit' icon, which is the subject of Fig 6.

(Fig 6) Edit icon

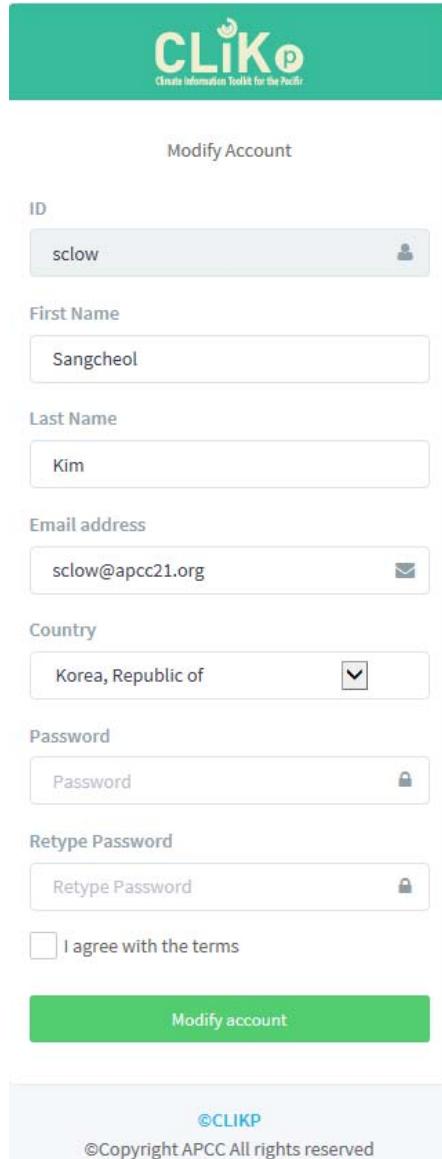
- In order to ensure the security of the account, the CLiK® system requires the user to verify their 'ID' and 'Password', as shown in (Fig 7), in order to edit his/her information.



The screenshot shows the 'Input Account Info' page. It has fields for 'ID' (containing 'sclow') and 'Password' (containing a masked password). Below these fields is a green 'Apply' button. At the bottom of the page, there is a footer with the text '©CLiK®' and '©Copyright APCC All rights reserved'.

(Fig 7) User account verification

- After making the necessary modifications to the user information, click 'Modify account' button to save the changes to the information. (Fig 8) shows an example.



CLiKp
Climate Information Toolkit for the Pacific

Modify Account

ID
sclow

First Name
Sangcheol

Last Name
Kim

Email address
sclow@apcc21.org

Country
Korea, Republic of

Password

Retype Password

I agree with the terms

Modify account

©CLiKp
©Copyright APCC All rights reserved

(Fig 8) An example of modify user account

2 Intro.

- (Fig 9) shows the intro. page of the CLIK® system that provides basic information and user interface.



Background

The CLimate Information ToolKit version 1.0 (CLIK1.0) was developed in line with APCC's mission of empowering users to maximize the use of climate information and forecasts. The CLIK system provides customized multi-model ensemble (MME) prediction with verification. It also has a statistical downscaling tool which conducts predictor variable pre-screening, basic diagnostic testing, and graphing of climate data from January 2008 onwards. More than 1,200 registered users enjoy the service and about 7,500 predictions have been generated based on the users' request since 2008. Building on the success of CLIK 1.0, new features such as inclusion of other MME methods, improving the downscaling function, enhancing performance, and supporting multiplatform use have been added in the updated version CLIK 2.0 based on user feedback. The product is continuously being improved as APCC responds to the climate information needs of APEC member economies and users worldwide.

Product Description

CLIK aids users in retrieving and using climate prediction data and information available from APCC data servers in a user-friendly manner. Climate forecasters, disaster managers, water resource managers, researchers, and other users anywhere in the world can use this service to generate customized climate predictions on seasonal to inter-annual timescales for their region of interest. The tool has an immense potential to contribute to early warning and management of climate-related disasters and resource management, particularly in developing countries.

The data processing engines powering CLIK at the backend are built on the NCAR Command Language (NCL), a powerful suite of libraries for climate data manipulation and visualization. The web interface of CLIK 1.0 and CLIK 2.0 was built on the web framework Ruby on Rails (RoR). RoR provided simplicity and productivity to the developers but resulted in heavy use of computing resources and raised software incompatibility problems. To resolve these performance and incompatibility issues, we have designed and developed a faster, lighter CLIK 3.0 based on Java and pure HTML with NCL. The main motivation for the new developments is to make the product more useful to developing countries and locations with slower internet connections.

CLIK 3.0 leverages on the robust functionality of previous product releases but at around 10 times the speed. Some of the new features include:

User Interface:

- Modern layout and more user friendly interface
- Higher resolution maps with zoom functions
- Side-by-side viewing of prediction and verification maps
- Simultaneous panning of prediction and verification maps
- Layered prediction and verification maps that can be compared adjusting opacity

Performance:

- Cleaner user interface that reduces page loading time
- Web display is up to five times faster
- Climate information processing is up to 10 times faster
- Database access is up to 13 times faster
- Reduction of downscaling steps from 3 to 2 times, reducing page load time

Future product development plans include an offline CLIK for Windows that can be operated under poor or no Internet connectivity available for free download.

User Manual

[PDF / HTML](#)

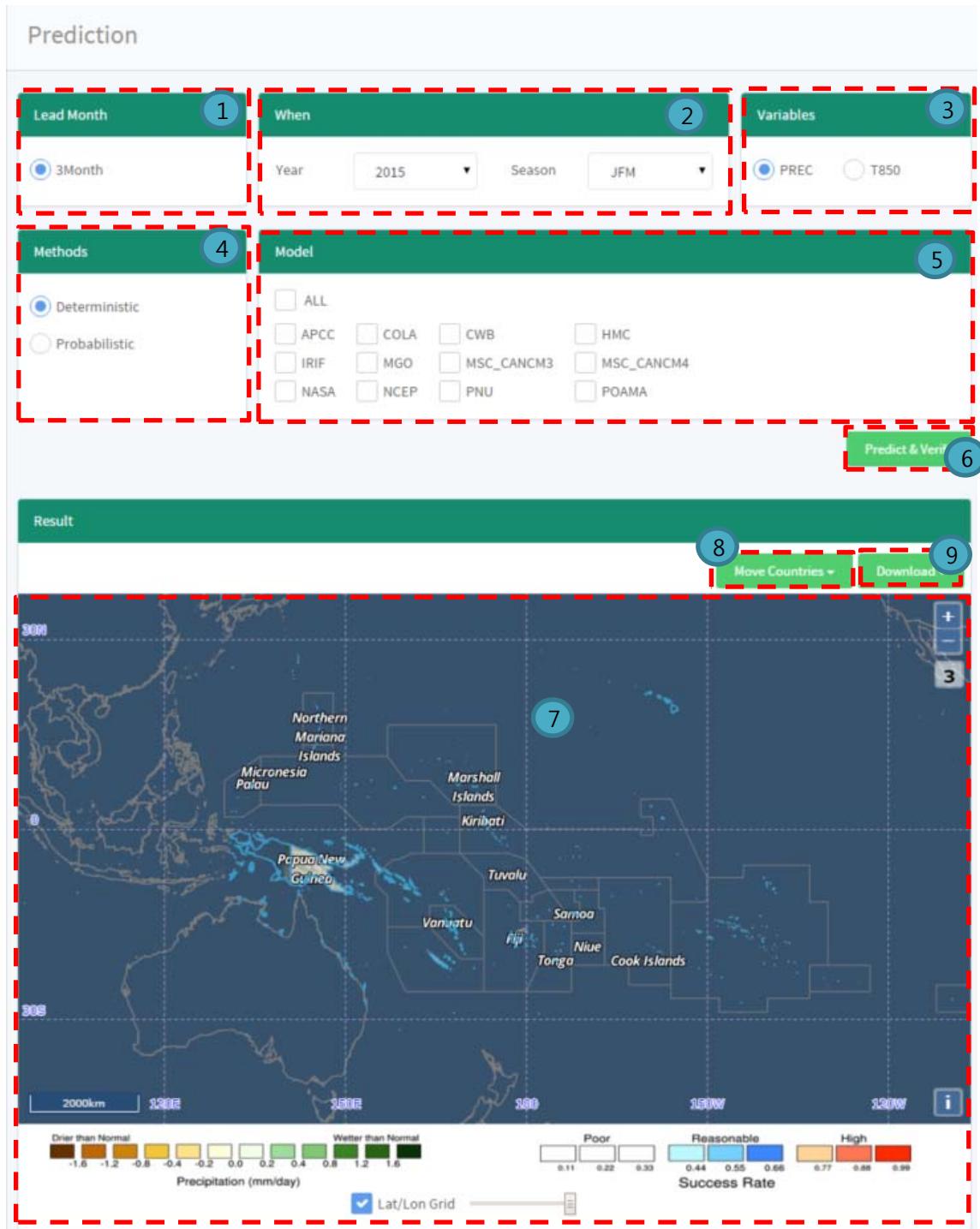
(Fig 9) Introduction Page

1. Home – Move to the Intro. page
2. Prediction – This menu provides MME prediction & verification
3. My Page – Used to check user job list and processing results.
4. CPU Usage – Displays CPU usage information of the CLIK® system. It is automatically updated every 30 seconds.
5. Queue Status – Shows current number of image processing servers, number of processing jobs, number of queued jobs. It is automatically updated every 30 seconds.
6. User Job Result – Shows the status all of the user's jobs: Success, Failed, Processing, and Queued. It is also automatically updated every 30 sec.

3 PREDICTION

3.1 Prediction

- The prediction menu provides MME prediction and verification and shows the results in the built-in map focused on the Pacific region.

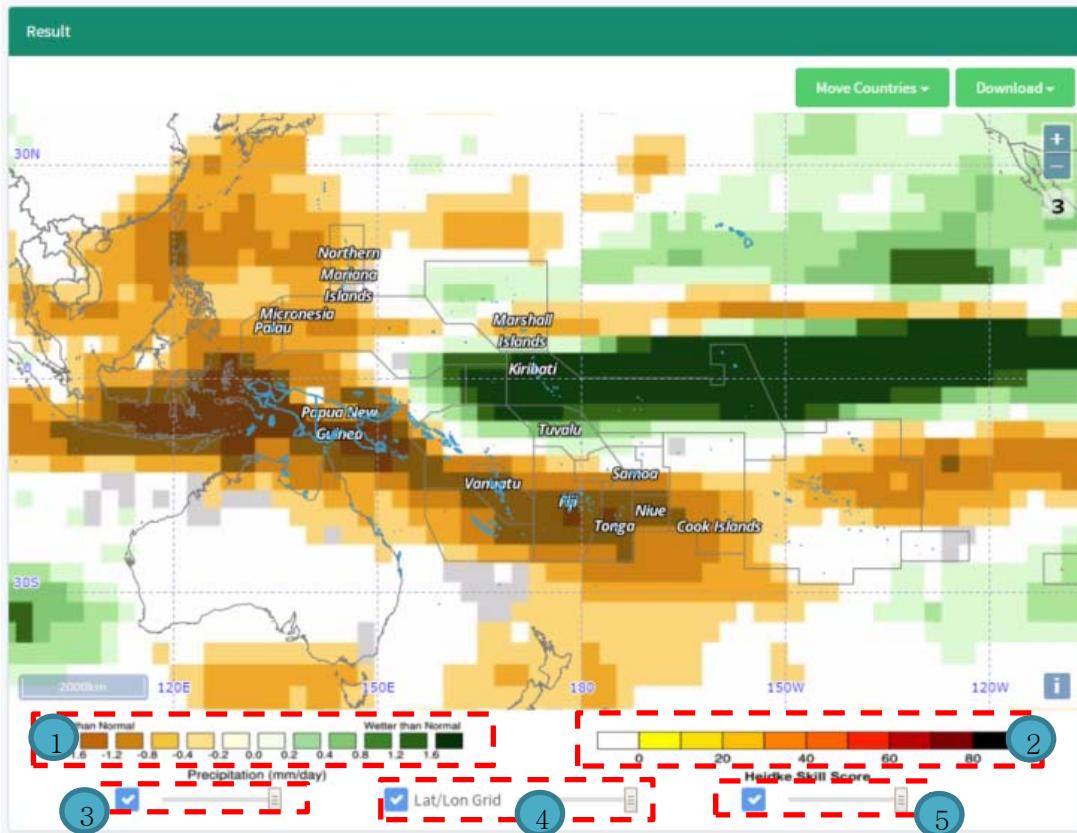


(Fig 10) Prediction Screen

1. Lead Month – Select lead month of MME Prediction.
2. When – Select year and season. For example, you could select 2015 for the year and JFM (January-February-March) for the season.
3. Variables – Select one variable for MME prediction (PREC: Precipitation, T850: 850hPa Temperature).
4. Methods – Choose one of DMME and PMME that use simple composite method and Gaussian approximation, respectively.
5. Model – Select model to be used in the prediction, Available models could change due to lead month, time frame, and other variables.
6. Predict & Verify – Request “Prediction and Verification” with customized parameters due to user’s choice.
7. Map – Present the results of the “Prediction and Verification” on the map.
8. Move Countries – Move latitude and longitude coordinates of the map to selected country.
9. Download – This button supports the downloading of files; PNG, NC and ASCII of the result.

3.2 Result Details: Predict & Verify

- Successful result of user's request will be presented in a Pacific oriented map.



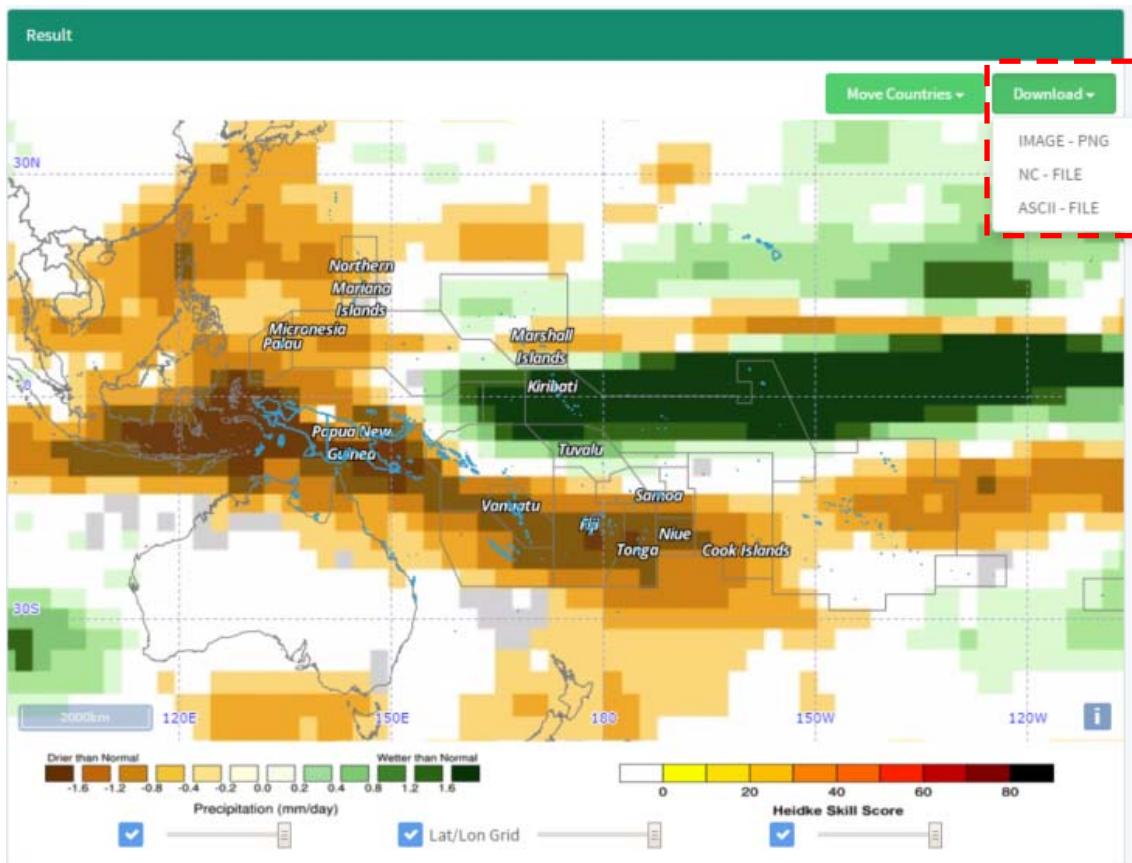
(Fig 11) Result Details: Prediction Result

1. The first color bar shows the information that indicates the meaning of color for the prediction results.
2. The second color bar shows information indicating the meaning of color for the verification results.
- 3~5 allows the user to choose to display the (3) prediction result, (4) latitude/longitude grid, and (5) verification result. The corresponding box should be checked if the user would like to display that aspect, and unchecked if the user would like that aspect to not be displayed. The horizontal scroll bar adjusts the opacity of each display. This allows for the user to simultaneously view and compare the prediction and verification results, as well as personalize the image to fit their needs.

3.3 Result Details: Download

- The user can download the result in various types of files such as image (PNG), binary data (NC), and text data (ASCII) files.

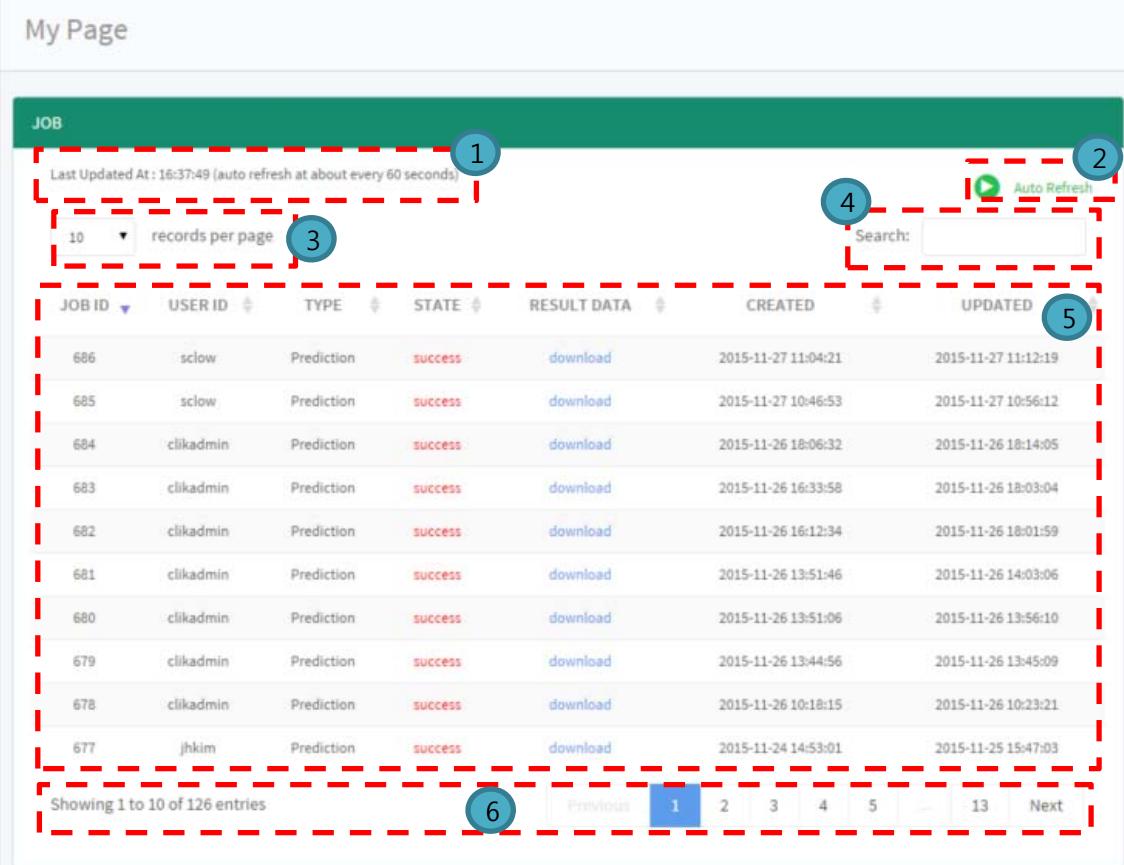
Especially, the downloaded image file precisely represents the appearance of the displayed results (lat/lon grid, transparency, etc.) to the end-user.



(Fig 12) Download button

4 My Page

'My Page' allows users to check the list of jobs and their respective statuses.



The screenshot shows a 'My Page' interface with a green header bar labeled 'JOB'. Below it is a table of jobs with columns: JOB ID, USER ID, TYPE, STATE, RESULT DATA, CREATED, and UPDATED. The table has 126 entries. At the top left, there's a message 'Last Updated At : 16:37:49 (auto refresh at about every 60 seconds)'. On the right, there's a 'Search:' input field with a magnifying glass icon and a 'Auto Refresh' button with a circular arrow icon. The bottom of the table shows a page navigation with buttons for 'Previous', '1', '2', '3', '4', '5', '13', and 'Next'. A red dashed box highlights the top section of the table, and a red dashed box highlights the bottom section. Numbered circles (1-6) point to specific elements: 1 points to the 'Last Updated' message, 2 points to the 'Auto Refresh' button, 3 points to the 'records per page' dropdown, 4 points to the 'Search:' input field, 5 points to the 'UPDATED' column header, and 6 points to the current page number '1'.

(Fig 13) My Page

1. The information on the jobs is automatically updated every 60 seconds, and shows the first created and the last updated time.
2. The status of 'Auto Refresh' indicates whether it is automatically updating or paused. It is automatically paused when searching something or when looking at other pages besides the first page.
3. Set the number of row shown in the jobs table.
4. Search jobs with keywords.
5. The table of jobs contains all of the information on the jobs created by the user. The user can sort the jobs according to different columns (ascending and descending) by clicking each column.
6. Indicates current page and provides the ability to view a specific page.

'User ID Column' is only displayed to the administrator.

- If the user selects a prediction job that indicates a 'Success' state, a 'View Result' button will be displayed to the user. By clicking this button, the user can see the prediction results.

My Page

JOB

Last Updated At : 16:58:53 (auto refresh at about every 60 seconds)

 Auto Refresh

10
records per page
Search:

JOB ID	USER ID	TYPE	STATE	RESULT DATA	CREATED	UPDATED
686	sclow	Prediction	success	download	2015-11-27 11:04:21	2015-11-27 11:12:19
685	sclow	Prediction	success	download	2015-11-27 10:46:53	2015-11-27 10:56:12
684	clikadmin	Prediction	success	download	2015-11-26 18:06:32	2015-11-26 18:14:05
683	clikadmin	Prediction	success	download	2015-11-26 16:33:58	2015-11-26 18:03:04
682	clikadmin	Prediction	success	download	2015-11-26 16:12:34	2015-11-26 18:01:59
681	clikadmin	Prediction	success	download	2015-11-26 13:51:46	2015-11-26 14:03:06
680	clikadmin	Prediction	success	download	2015-11-26 13:51:06	2015-11-26 13:56:10
679	clikadmin	Prediction	success	download	2015-11-26 13:44:56	2015-11-26 13:45:09
678	clikadmin	Prediction	success	download	2015-11-26 10:18:15	2015-11-26 10:23:21
677	jhkim	Prediction	success	download	2015-11-24 14:53:01	2015-11-25 15:47:03

Showing 1 to 10 of 126 entries

Previous
1
2
3
4
5
...
13
Next

Details - Prediction

LOGIN ID: sclow

JOB ID: 686 CREATE At: 2015-11-27 11:04:21

PREDICTION ID: 153075 UPDATE At: 2015-11-27 11:12:19

LEAD MONTH: 3 YEAR / SEASON: 2015 / 9

VARIABLE: T850 METHOD: GAUS

PROVIDERS: APCC,BCC,COLA,CWB,HMC,MGO,MSA,MSA_CANCM3,MSA_CANCM4,NASA,NCEP,PNU

View Result

(Fig 14) Job List – View Result

©Copyright APCC All rights reserved

APEC Climate Center