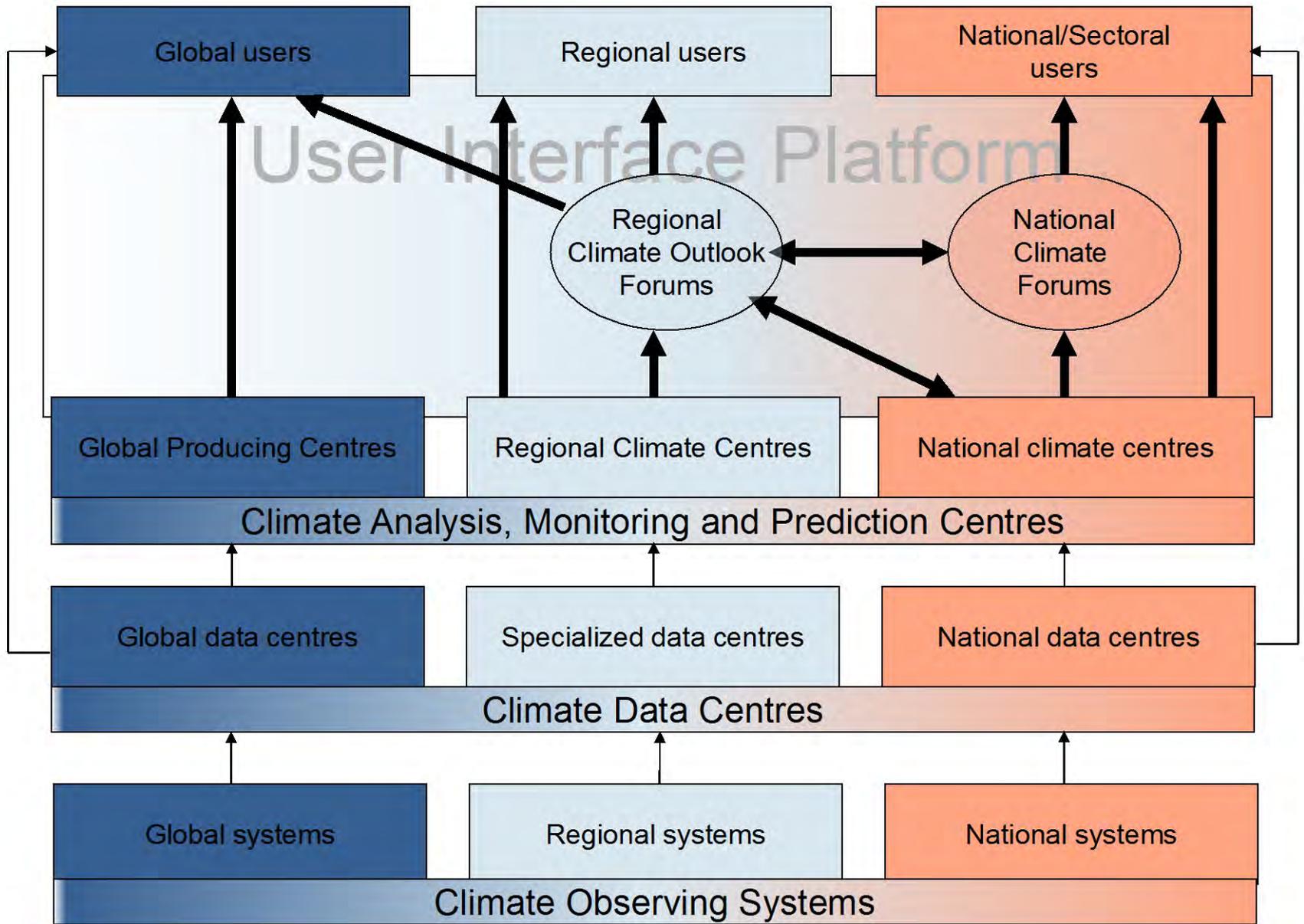




Translating Climate Information into Climate Services: RIMES initiatives

G Srinivasan
RIMES

Regional Stakeholder Consultation on Climate Services for the Third Pole Region
Holiday Inn Jaipur City Centre, Rajasthan, India
9-11 March 2016



WMO-RIMES GFCS project “Capacities and mechanisms for climate services production and delivery are in place in South Asia” – recently formalized under the Canadian Government

User Interface Platforms

**Regional Outlook Forum/User Forums
SASCOF/Winter SASCOF**

National Climate Outlook Forums

Demonstration Projects in key user sectors

Documentation

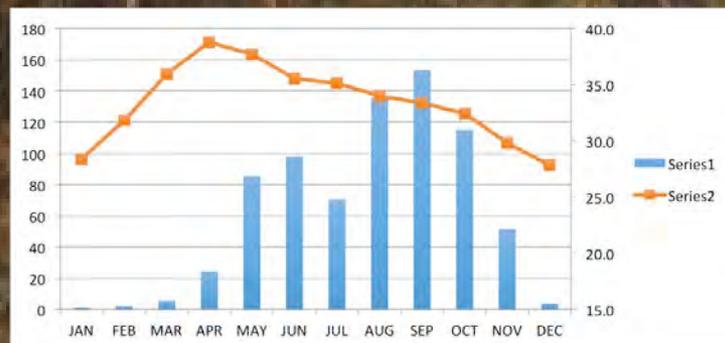
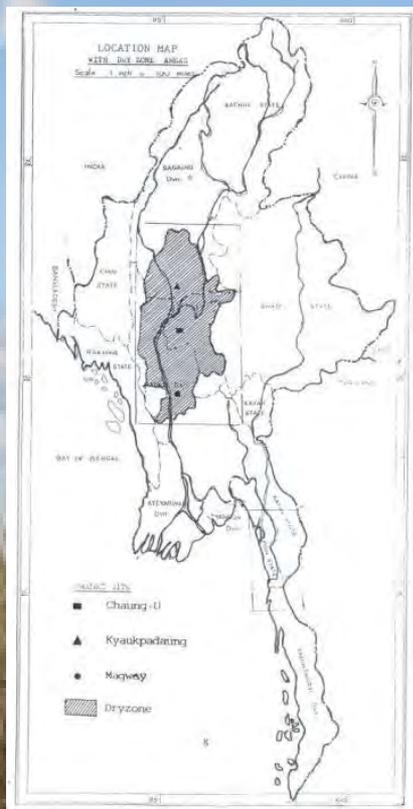
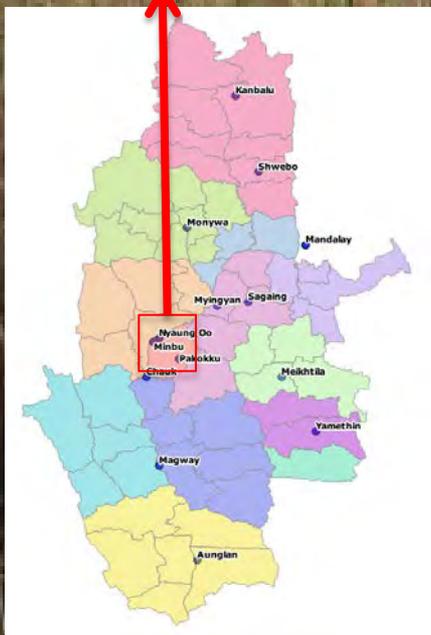
Regular Capacity Assessments/gaps/potential projects

Research/involve a variety of stakeholders

Decision Support Systems (DSS) for key sectors

Myanmar Dry Zone

Nyaung Oo
Monywa





SESAME

(Specialized Expert System for Agro Met Early Warning)

A web based online platform to generate and disseminate agro-met bulletins based on short and medium range weather and climatic parameters <http://agro.rimes.int/myanmar>

- Customized for two pilot sites of Dry Zone in Myanmar viz. Nyuang Oo and Monywa.
- Built on two weather model input datasets
 - ECMWF Deterministic Forecast with 10 days lead time
 - WRF Model data from RIMES with 3 days lead time
- Capable of ingesting these two datasets and generate 10 days or decadal Agro-Met bulletins (email and fax) and 3 days short-term forecasts disseminated by SMS messages.



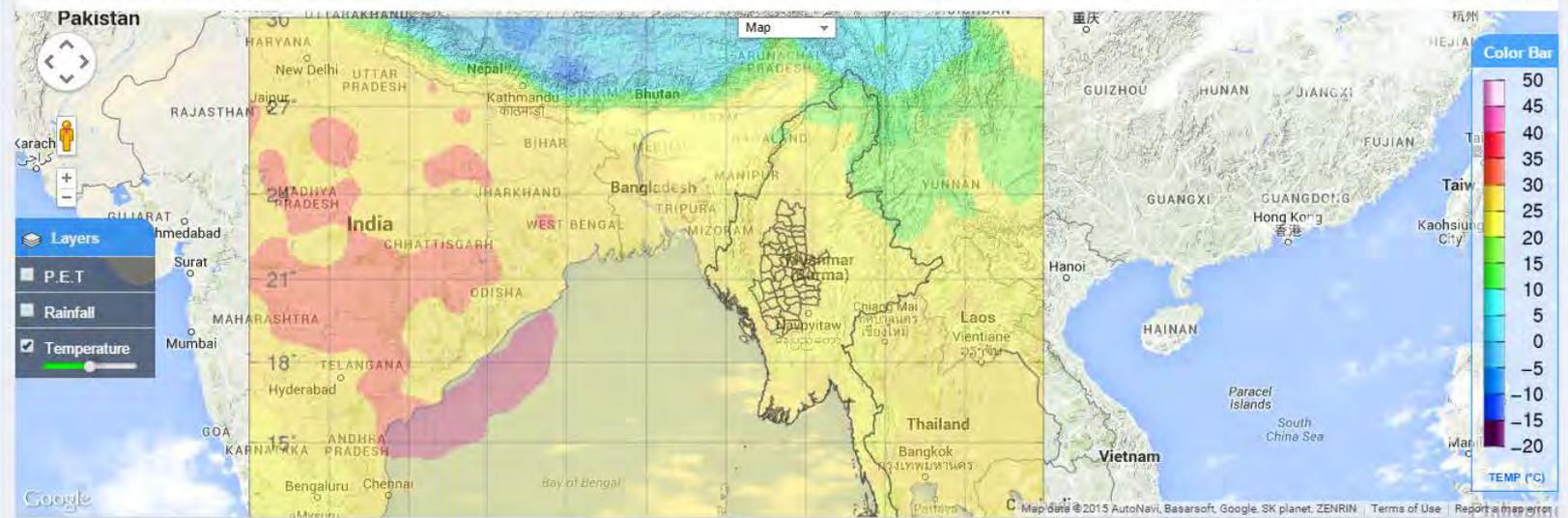
Dashboard

Overview Dashboard

10 DAYS FORECAST OBSERVATION MONITORING

Day [From 2015-05-28 To 2015-06-07]

D1 D2 D3 D4 D5 D6 D7 D8 D9 D10



Most Recent Advisories

May 21-31	Location Name	Monywa
	Accumulated Rainfall	Expected accumulated rainfall for dekad 21-31 May 2015 is 3.0875 The spell is expected to be mostly Dry
	Temperature Forecast	Expected variation in this dekad 21-31 May 2015 is likely to from maximum temperature of 37.345 to minimum temperature 27.0625
	Wind Forecast	Expected Wind for 21-31 May 2015 is likely to to be of Average wind speed of 14.4875
		Bulletin
May 21-31	Location Name	Nyuang Oo
	Accumulated Rainfall	Expected accumulated rainfall for dekad 21-31 May 2015 is 1.555 The spell is expected to be mostly Dry
	Temperature Forecast	Expected variation in this dekad 21-31 May 2015 is likely to from maximum temperature of 36.52 to minimum temperature 26.54
	Wind Forecast	Expected Wind for 21-31 May 2015 is likely to to be of Average wind speed of 16.7025
		Bulletin

System Workflow

Geospatial Database Layers (Static Layers)

- Land Use Resource Data (Country Level Major LU Types-FAO Data)
- Soil Resource Data Layers (Township level soil suitability map based on soil texture characteristics)
- Terrain Resource data (SRTM-90 M Resolution data)
- Population Density Data (Country, township & Village level Population zoning maps)
- Monthly normal climate

Climate Resource Data layers (Dynamic layers)

- Observed Climate data {DMH Data- Max. No. of stations data for last 3 years (86/87 stations)}
- Forecast Data (3-days WRF-RIMES data)
- Forecast data (10 Days ECMWF downscaled data)

Geospatial Agro climatic database

Software Used

- Q-GIS – Desktop level application tool for GIS Analysis
- Manifold – Web GIS application Tool

Crop-Weather Calendars for popular crops

Agro-Climate Management System- web based GIS platform

Agro Met Bulletin

3-days SMS based

10-days bulletin (PDF document based)

- Agricultural Extension workers
- Progressive Farmers

- Agricultural Extension workers
- Department of Agriculture (DOA)

- Static Layers: ■
- Dynamic Layers: ■

Data and Models

Crop data and Crop weather Calendar

6 crops for both locations is incorporated within the system.

- Paddy
- Sesame
- Pigeon Pea
- Cotton
- Chilli and
- Groundnut

Crop Weather Calendar is also being incorporated within the system to correlate decadal weather parameters with present crop stage.

Decades	Period	Paddy	Sesam	Pegion Pea	Cotton	Chilli	Groundnut
1	1-10 Jan			EH 1 2 4 5		7 1 2	
2	11-20 Jan			1 2 4		1 2	
3	21-31 Jan					LH 1 2 4 7	
4	1-10 Feb	1 2 4				1 2 4 7	
5	11-20 Feb	LH (1, 2, 4)				1 2 4 7	
6	21-28 Feb	1 2 4					
7	1-10 March	1 2 4		LH 1 2 5			
8	11-20 March			1			
9	21-31 March			1			
10	1-10 April		ES 1		1		
11	11-20 April		1 2		1	1	1 2
12	21-30 April		1 2		1	1	1 1 2
13	1-10 May		1	ES 1	ES 1 2		1 ES 1
14	11-20 May		1	1 2	1 2	1 2	1 2
15	21-31 May	1 2			1	1 ES 1 2 4	1 2
16	1-10 June	ES (1)	S 1		1 LS 1 2	1 2	1 2
17	11-20 June	1 2	1 2		1 1 2	1 2	1 2
18	21-30 June	1 2		1 LS 1 2		1 1 2	1 2
19	1-10 July		1 LS 1	1 2		1 1 2	LS 1
20	11-20 July		1 1 2		1	1	1 1 2
21	21-31 July	1 2	1 2	1 2	1 5	1 2	1 2
22	1-10 August	LS (1, 2)	EH 1 2 4		1 EH	LS 1 2 4	1 2
23	11-20 August	1 2	1 2		1 1 5	1 2	1 2
24	21-30 August	1 2	1 2		1 1 5	1 2	1 2
25	1-10 September		1		1 1 5	EH 1 2 4 7	1 2
26	11-20 September		1		1 1 5	1 2 4 7	1 2
27	21-31 September	1 2 4	LH 1 2 4		1 LH	1 2 4 7	EH 1 2
28	1-10 October	EH (1,2,4)	1 2		1	1 2	LH 1 2
29	11-20 October	1 2 4	1 2		1	1 2	
30	21-30 October	1 2 4			1	1 2	
31	1-10 November				1	1 2	
32	11-20 November				1	1 2	
33	21-30 November				1	1 2	
34	1-10 December			1 5		7 1 2	
35	11-20 December			1 5		7 1 2	
36	21-31 December			1 5		7 1 2	

Code Identification:

- S- Sowing
- ES - Early Sowing
- LS - Late Sowing
- EH - Early Harvesting
- LH - Late Harvesting
- 1 - Rainfall forecast Required
- 2 - Temp Max. Forecast Required
- 3 - Temp.Min.Forecast Required
- 4 - Windspeed Forecast Required
- 5 - Fog Warning
- 6 - Hailstorm Warning
- 7 - Thunderstorm Warning



...thank you