Philippine

Atmospheric

Geophysical

Astronomical

Services

Administration

The nation's meteorological service and public weather service provider

PAGASA Headquarter
Agham Road, Diliman, QC.

Satellite Antenna at Weather and Flood Forecasting Center

DOST PAGASA
The Weather and Climate Authority

PAGASA PROFILE

PAGASA - Presidential Decree No. 78 (Dec. 1972) as amended by PD No. 1149 (June 1977)

PAGASA is an attached agency of the Department of Science and Technology (DOST)

The Philippines, through the PAGASA, is a Member of the World Meteorological Organization (WMO), a specialized body of the United Nations.

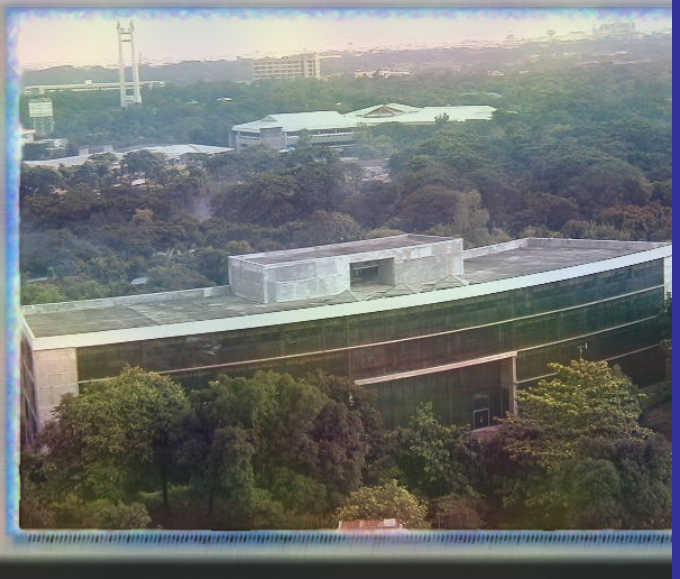
MISSION

To provide **weather, flood, climate and astronomical** products and services to promote the people's safety and well-being, and contribute to national development.

DOST PAGASA
The Weather and Climate Authority

Satellite Antenna at Weather and Flood Forecasting Center

PAGASA Onwards to 2020



mandated to provide public weather forecasts and advisories, typhoon and flood warnings, meteorological /climatological/ astronomical products, and other specialized services primarily for the protection of life and property, and in support of economic productivity

Payong
PAGASA

Payong means umbrella or advice

EL NIÑO UPDATE, CLIMATE REVIEW and Outlook

(October 2015 – June 2016)

Prepared by:

Climate Monitoring and Prediction Section (CLIMPS)
CLIMATOLOGY & AGROMETEOROLOGY DIVISION (CAD)
PAGASA-DOST, Quezon City

Updated: 22 OCTOBER 2015

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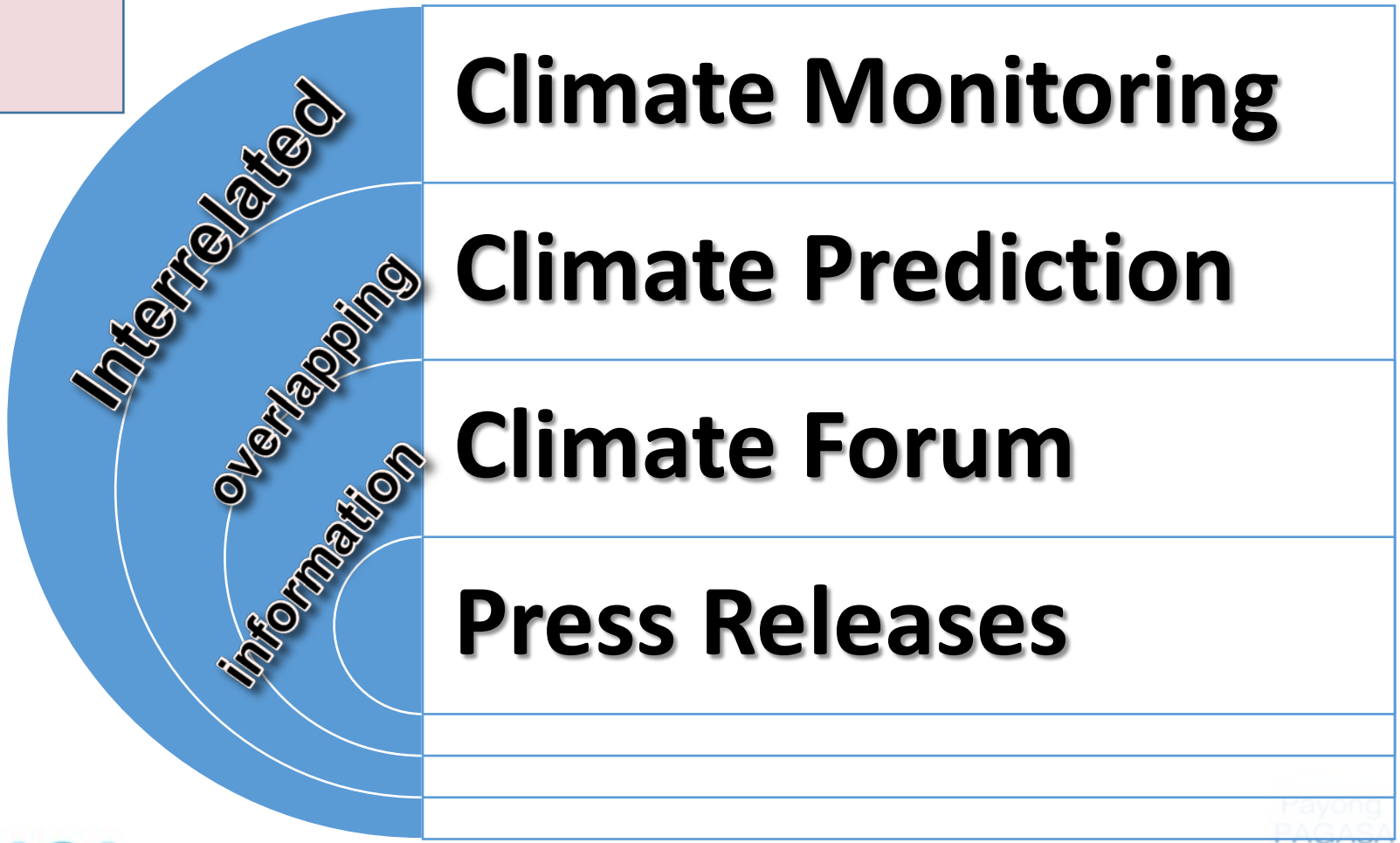
CLIMATE MONITORING AND PREDICTION SECTION

CLIMPS

CLIMPS Activities



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Climatological Products and Services

CLIMATE MONITORING AND PREDICTION SECTION

CLIMPS

Climate Forum

to disseminate information on what to expect in the coming season to major stakeholders/partner agencies

Department of Agriculture Region IV-B Planning Conference

Advisory Issuances for the current 2015-2016 El Niño

Date	Issuances
May 1, 2014	PAGASA Issued El Niño Watch
November 28, 2014	issued Dry Condition Advisory
March 11, 2015	• Press Statement - Weak El Niño in Progress • issued El Niño Advisory No. 1
April 07, 2015	issued El Niño Advisory No. 2
May 06, 2015	issued El Niño Advisory No. 3
June 03, 2015	issued El Niño Advisory No. 4
July, 04 2015	issued El Niño Advisory No. 5
August 05, 2015	issued El Niño Advisory No. 6
September 3, 2015	issued El Niño Advisory No. 7
October 8, 2015	issued El Niño Advisory No. 8
October 07, 2015	• Press Statement - Termination of SW monsoon
October 15, 2015	• Press Statement – Onset of NE monsoon

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DOST PAGASA The Weather and Climate Authority

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CLIMATE OUTLOOK

(OCTOBER 2015 – JUNE 2016)

DOST PAGASA
The Weather and Climate Authority

Updated:
OCTOBER 22, 2015

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WEATHER SYSTEMS THAT MAY AFFECT THE COUNTRY DURING THE PERIOD

(October 2015 - June 2016)

OCTOBER - MARCH 2016

- Transition from SW to Northeast (NE) Monsoon in October
- NE Monsoon
- Tail-end of Cold Front
- Easterly wave
- Intertropical Convergence Zone (ITCZ)
- Low Pressure Areas (LPAs)
- Ridge of High Pressure Area
- Tropical Cyclones

APRIL - JUNE 2016

- Transition from NE Monsoon to SW monsoon in May 2015
- SW Monsoon
- Intertropical Convergence Zone (ITCZ)
- Low Pressure Areas (LPAs)
- Ridge of High Pressure Area
- Tropical Cyclones
- Onset of rainy season in May

About our Rainfall Maps…

For: RAINFALL OUTLOOK (November 2015 – June 2016)

Percent of Normal Interpretation for Monthly Rainfall

PERCENTAGE	RAINFALL CONDITION
< 40%	way below normal
41% - 80%	below normal
81% - 120%	near normal
> 120 %	above normal

$$\text{Percent of Normal} = \frac{\text{Actual Rainfall}}{\text{Normal Rainfall}} \text{ X } 100\%$$

Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA)

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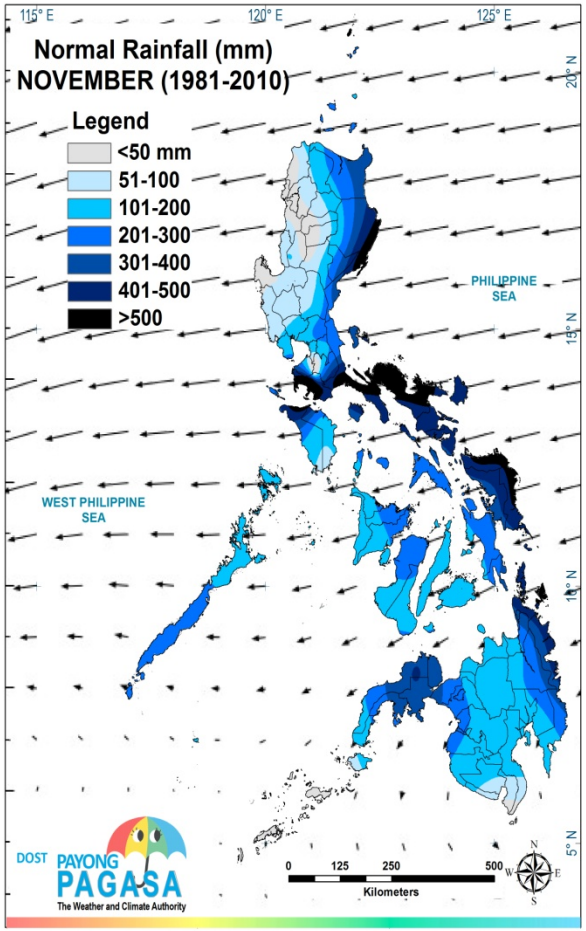
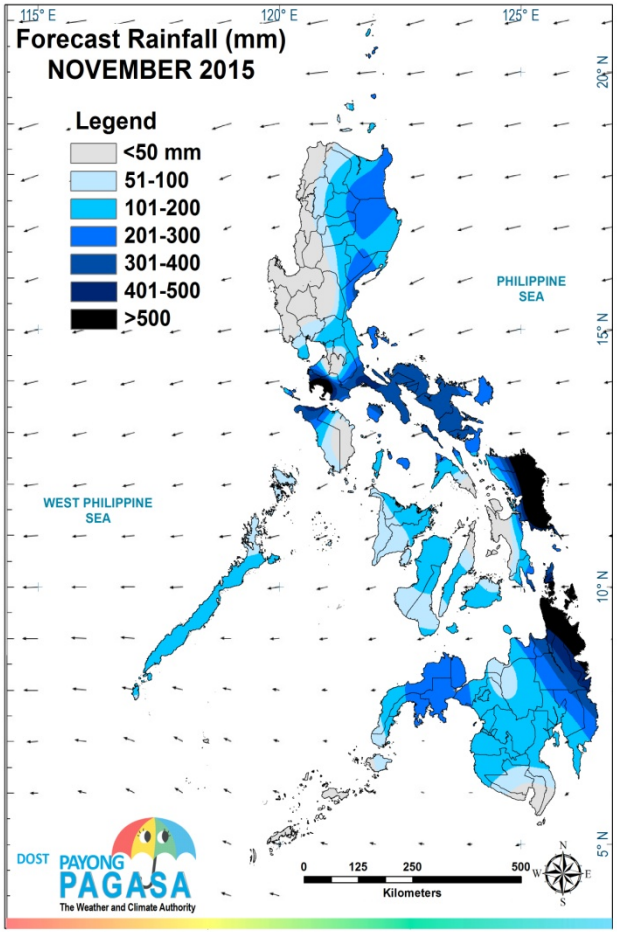
Monthly Rainfall Forecast

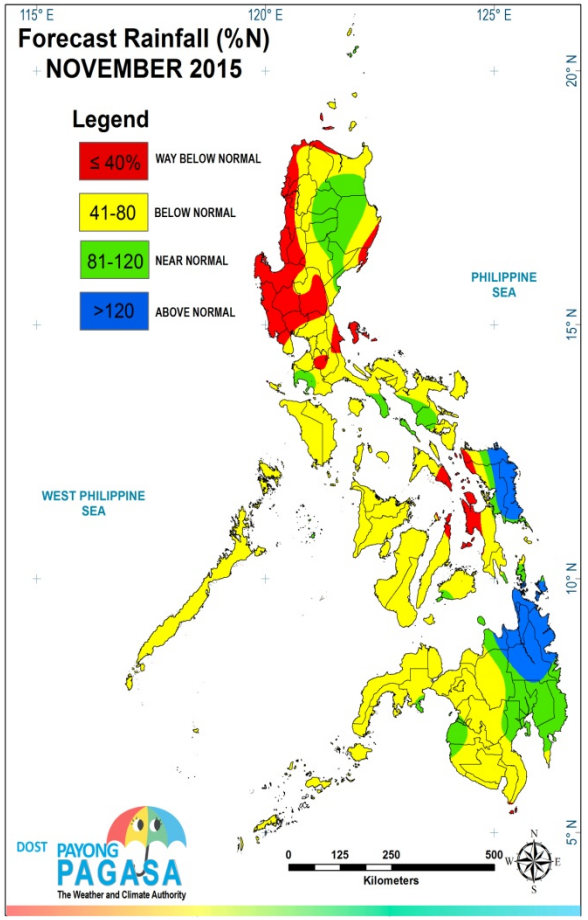
Normal (mm)
(1981-2010)

November 2015
Forecast (mm)

% Normal







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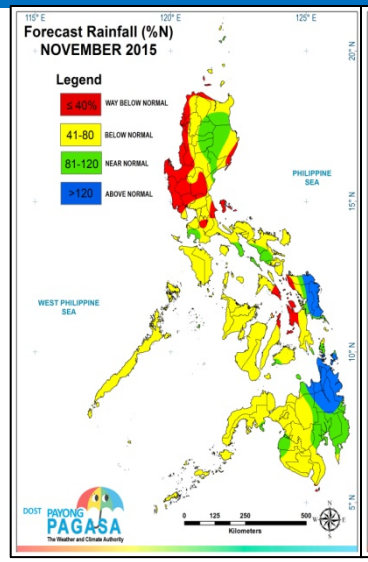
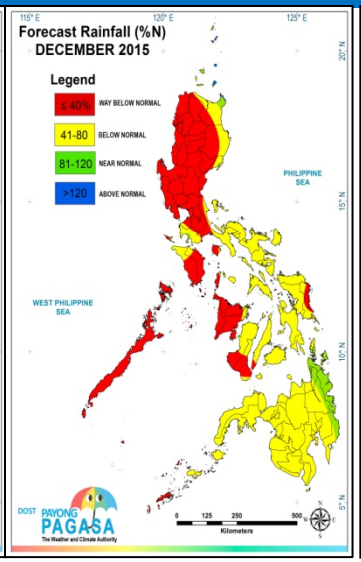
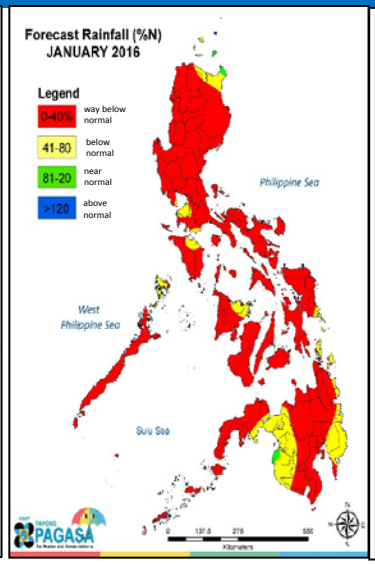
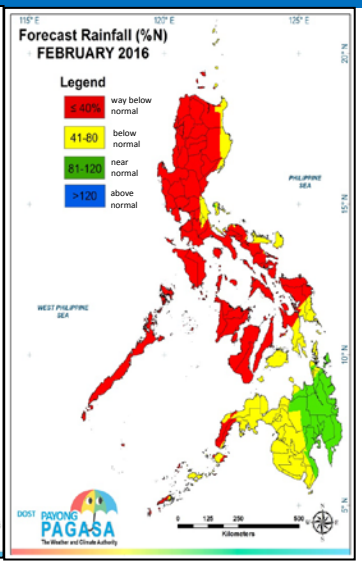
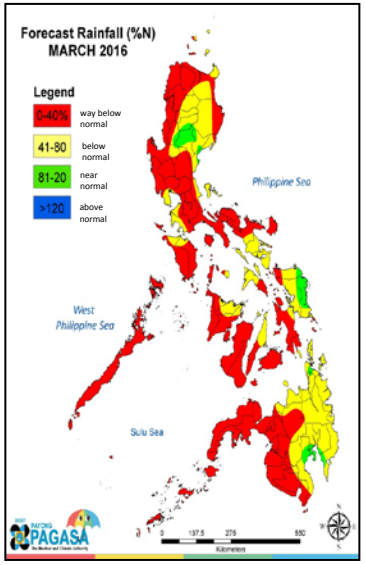
RAINFALL OUTLOOK (NOVEMBER 2015 – JUNE 2016)

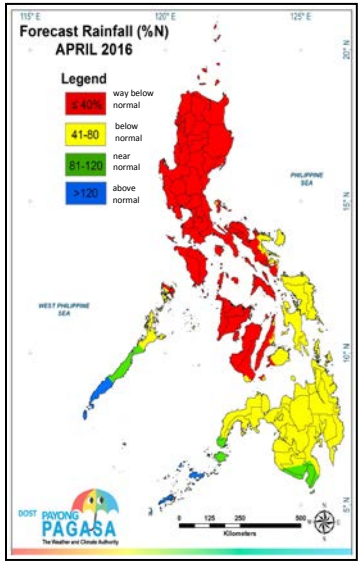


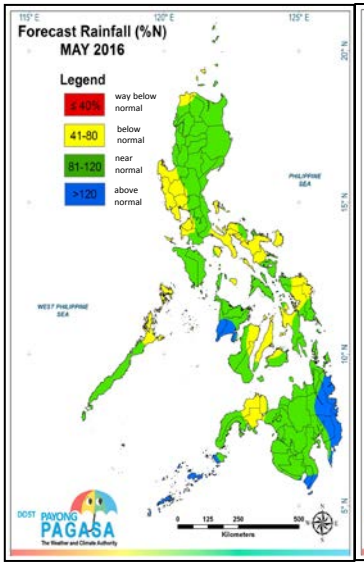


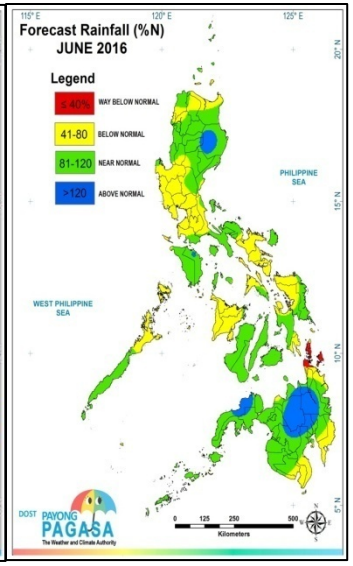












Dry conditions will likely affect most parts of country from October 2015 until April 2016.

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Percent of Normal Rainfall							
≤40%	Way below normal	41-80%	Below normal	81-120%	Near normal	>120%	Above normal

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Forecast Rainfall Analysis in %N (Nov. 2015-June 2016) updated: Oct. 22, 2015

PROVINCE	OCT 1-21 ACTUAL	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
CORDILLERA ADMINISTRATIVE REGION (CAR)									
ABRA	160.6	51.8	3.5	7.9	8.2	21.1	6.7	107.5	83.8
BENGUET	255.8	30.1	5.3	1.7	2.2	40.2	13.9	92.7	82.1
IFUGAO	105.7	89.9	2.2	15.4	11.8	73.9	12.0	97.7	107.1
KALINGA	105.6	97.5	4.8	14.8	17.6	49.6	5.9	99.0	103.0
APAYAO	103.2	58.6	17.7	25.5	19.0	28.8	8.1	92.1	79.7
MOUNTAIN PROVINCE	137.2	87.3	1.8	12.8	12.3	52.6	9.9	100.6	105.5
REGION I									
ILOCOS NORTE	116.0	38.5	8.7	7.4	11.5	7.4	9.3	82.7	84.0
ILOCOS SUR	241.4	30.3	5.0	2.5	1.7	3.4	10.3	104.7	90.6
LA UNION	319.7	5.8	0.7	0.2	0.0	0.1	10.7	88.0	90.6
PANGASINAN	198.1	14.7	9.8	0.3	1.0	23.0	10.9	77.7	71.5
REGION II									
BATANES	98.7	78.0	133.8	76.1	54.5	75.1	36.0	84.4	108.3
CAGAYAN	89.5	73.0	53.2	45.8	33.5	39.4	10.1	95.5	84.6
ISABELA	87.7	82.6	30.6	20.4	36.1	47.6	7.9	90.6	118.4
NUEVA VIZCAYA	96.7	63.0	8.2	9.6	12.6	82.4	16.8	97.0	86.3
QUIRINO	58.0	81.3	20.6	20.9	22.6	75.6	15.1	92.7	103.3
REGION III (CENTRAL LUZON)									
BATAAN	102.8	39.3	21.7	31.3	1.5	46.8	9.4	50.4	52.3
BULACAN	93.6	51.1	17.5	5.3	17.5	13.6	20.9	89.8	74.5
NUEVA ECIJA	112.7	29.4	11.4	2.5	17.2	18.0	25.4	90.2	79.6
PAMPANGA	111.3	31.7	17.9	12.6	3.9	28.6	13.9	67.7	64.3
TARLAC	124.2	25.0	14.6	4.7	0.9	26.4	17.4	71.0	67.5
ZAMBALES	165.5	11.8	15.1	7.8	0.4	15.1	6.9	59.9	62.0
AURORA	77.2	55.9	30.7	15.6	35.1	55.9	18.2	92.5	91.3
NATIONAL CAPITAL REGION									
METRO MANILA	79.3	62.8	8.3	16.6	14.0	15.2	20.1	87.6	68.4
REGION IV-A (CALABARZON)									
BATANGAS	63.5	75.6	55.0	36.4	18.2	37.9	19.3	84.0	78.6
CAVITE	96.4	61.1	26.1	49.8	16.4	39.8	17.6	51.2	58.4
LAGUNA	64.7	43.9	16.7	29.1	33.6	13.9	24.5	95.8	67.6
RIZAL	110.7	55.2	14.7	7.4	33.1	7.3	26.3	105.8	75.7
QUEZON	54.7	61.1	39.4	27.4	40.6	33.1	27.2	82.0	81.4
REGION IV-B (MIMAROPA)									
MARINDUQUE	48.2	76.7	32.4	24.5	27.7	26.6	19.6	78.9	97.5
OCCIDENTAL MINDORO	44.9	61.3	28.0	21.2	8.1	25.1	13.1	95.8	98.9
ORIENTAL MINDORO	31.1	54.0	23.0	28.6	13.9	28.1	15.4	97.9	110.4
ROMBLON	58.8	74.7	35.5	7.2	15.0	31.8	20.0	84.1	87.5
PALAWAN	19.9	59.6	17.7	12.1	4.5	0.1	90.7	89.7	81.9
REGION V (BICOL)									
ALBAY	34.1	80.5	52.2	5.7	32.9	57.8	39.2	78.3	52.0
CAMARINES NORTE	53.3	64.4	46.5	26.1	37.7	14.8	33.4	79.3	83.7
CAMARINES SUR	79.7	72.9	47.2	12.9	38.8	29.7	38.3	78.2	68.2
CATANDUANES	82.0	53.0	39.9	13.5	44.6	13.3	51.4	75.7	91.8
MASBATE	58.1	55.0	49.6	13.8	18.8	44.3	32.1	90.7	76.1
SORSOGON	25.7	63.8	56.6	4.9	28.7	53.2	38.7	92.7	61.1

Forecast Rainfall Analysis in mm (Oct. 2015-June 2016) as of Oct. 2, 2015

PROVINCE	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
CORDILLERA ADMINISTRATIVE REGIO	MIN	MAX	MEAN	MIN	MAX	MEAN	MIN	MAX	MEAN	MIN	MAX	MEAN	MIN	MAX	MEAN	MIN	MAX	MEAN	MIN	MAX	MEAN	MIN	MAX	MEAN	MIN	MAX	MEAN
ABRA	81.2	215.7	164.5	16.9	136.2	69.7	1.0	10.1	0.8	0.6	9.4	2.8	0.6	10.4	4.5	1.0	11.5	6.0	2.6	7.9	5.4	143.8	208.4	175.0	136.5	257.8	173.5
BENGUET	73.9	252.5	153.9	1.2	57.7	21.8	1.0	7.3	1.4	1.0	1.4	0.4	0.0	12.5	3.5	0.0	35.6	14.1	7.2	16.4	12.1	173.8	297.4	232.9	97.9	442.9	256.8
IFUGAO	83.8	152.3	108.5	46.7	216.1	130.6	1.0	5.1	0.1	1.4	8.9	4.0	2.6	35.3	18.2	17.2	36.4	26.1	7.3	17.9	14.5	140.8	180.7	154.3	91.2	162.5	123.4
KALINGA	142.2	242.6	188.7	93.7	254.4	174.8	1.0	16.1	1.3	1.3	8.3	2.8	6.4	31.9	17.5	9.3	17.4	13.2	3.2	13.5	6.9	120.2	168.0	138.4	130.6	169.5	142.1
APAYAO	138.1	294.4	223.3	39.4	200.8	101.4	0.2	74.3	30.6	5.8	45.6	21.5	5.2	28.0	15.4	4.3	11.9	8.6	0.0	13.7	5.1	119.5	163.9	139.1	112.9	236.4	154.5
MOUNTAIN PROVINCE	112.0	178.4	138.1	50.1	228.1	131.6	1.0	2.1	0.0	1.1	3.4	1.9	2.8	34.0	15.0	9.0	21.8	16.5	6.5	16.5	11.2	133.2	198.1	158.4	121.6	209.6	151.2
REGION I																											
ILOCOS NORTE	24.5	199.3	133.3	1.0	71.5	26.9	1.0	38.2	9.1	1.0	29.0	7.3	0.0	18.9	6.4	0.0	6.7	2.5	1.0	13.7	5.8	157.8	196.3	178.2	166.7	344.3	239.4
ILOCOS SUR	55.5	207.3	129.6	1.0	81.7	25.8	1.0	0.8	0.1	1.0	1.4	0.6	0.0	5.0	1.2	0.0	10.6	1.7	5.0	12.3	8.2	184.3	266.5	218.4	189.8	387.1	277.0
LA UNION	168.5	253.4	225.0	1.0	15.4	2.5	1.0	2.4	0.1	1.0	0.3	0.0	0.0	0.3	0.0	0.0	0.8	0.0	1.0	10.3	6.2	231.3	293.1	273.5	332.2	457.8	418.1
PANGASINAN	90.2	215.7	162.1	1.0	47.3	12.5	1.0	12.8	2.8	1.0	2.6	0.3	0.0	14.5	1.5	0.0	25.0	5.0	0.0	20.1	5.8	136.0	249.2	177.8	157.3	438.3	273.6
REGION II																											
BATANES	239.2	292.2	263.7	147.5	259.4	203.0	107.5	180.0	144.4	121.1	144.2	131.9	47.1	53.8	50.6	40.9	54.8	47.3	16.1	16.8	16.5	185.8	207.3	196.6	253.8	274.4	263.9
CAGAYAN	131.6	404.2	305.1	34.6	284.3	189.2	11.3	216.8	84.9	3.1	144.7	38.2	14.2	67.3	35.5	5.8	37.7	14.2	0.0	22.0	8.2	111.3	161.9	120.4	95.2	247.8	144.0
ISABELA	100.6	289.8	181.3	130.9	264.6	202.5	1.0	187.2	79.8	1.3	24.8	10.2	22.3	110.7	50.8	13.8	77.9	30.2	7.7	34.5	18.4	120.8	218.8	158.6	120.6	229.6	198.9
NUEVA VIZCAYA	72.8	241.6	121.1	18.3	251.1	100.1	1.0	72.8	8.3	0.0	35.2	8.3	4.7	54.4	23.3	18.7	112.5	42.7	13.8	30.4	20.3	153.9	243.4	172.5	84.3	194.5	126.4
QUIRINO	102.0	238.5	161.4	154.0	278.1	212.0	1.0	145.5	66.5	10.8	39.3	25.1	25.8	72.8	42.3	40.2	126.3	81.7	18.4	33.0	24.4	164.5	264.9	218.1	124.4	217.7	172.9
REGION III (CENTRAL LUZON)																											
BATAAN	82.7	104.8	90.0	46.4	205.3	101.4	26.3	163.7	67.9	6.4	37.1	16.3	0.0	1.8	0.1	1.7	19.9	8.0	0.0	5.8	1.5	35.7	94.2	66.8	83.4	176.9	130.3
BULACAN	90.9	286.0	190.5	51.9	155.8	121.7	4.0	100.2	23.8	1.0	17.5	3.5	0.0	71.5	26.8	0.0	49.0	6.7	0.0	43.0	19.2	90.5	214.5	176.0	131.2	250.6	193.0
NUEVA ECIJA	86.2	275.7	153.8	0.7	180.8	51.1	1.0	94.0	14.8	1.0	28.5	4.0	0.9	82.4	31.5	0.0	84.0	13.8	10.8	56.0	27.3	141.2	221.4	168.3	147.3	230.2	185.8
PAMPANGA	88.7	150.5	101.4	34.3	98.1	61.4	3.8	42.3	15.6	1.0	11.6	3.5	0.0	23.9	3.2	0.0	2.9	0.2	0.0	17.5	4.9	85.0	161.3	121.4	131.3	200.4	162.9
TARLAC	86.1	150.6	107.7	19.6	38.1	29.6	3.3	15.4	10.2	1.0	3.7	1.9	0.0	12.1	0.5	0.0	8.6	2.9	0.0	16.8	4.0	119.3	180.0	141.4	161.7	269.9	203.5
ZAMBALES	93.3	203.6	144.5	0.0	60.1	17.1	1.0	31.7	9.6	1.0	8.1	2.2	0.0	0.8	0.1	0.0	4.2	1.6	0.0	7.5	3.1	90.2	158.5	128.8	165.3	348.5	259.2
AURORA	150.0	304.5	227.5	122.5	338.1	217.0	35.5	221.5	131.8	15.2	54.9	31.8	51.8	99.6	71.6	49.0	169.5	102.1	27.8	56.4	33.0	196.9	304.8	241.5	184.0	229.2	202.1
NATIONAL CAPITAL REGION																											
METRO MANILA	92.9	205.1	138.5	1.0	136.0	76.7	1.0	23.1	5.7	1.0	7.1	1.0	0.0	27.3	15.5	0.0	6.4	1.6	0.0	17.6	12.0	69.4	216.0	152.1	127.6	259.1	200.7
REGION IV-A (CALABARZON)																											
BATANGAS	87.6	131.3	117.2	1.0	684.4	421.5	1.0	596.7	324.9	1.0	131.1	80.6	0.0	41.8	18.7	0.0	65.7	37.8	3.8	24.3	14.7	36.3	177.9	111.0	79.2	257.5	154.1
CAVITE	84.5	117.1	97.5	1.0	468.1	171.2	1.0	396.1	128.8	1.0	83.4	29.9	0.6	25.3	15.2	0.0	41.6	15.5	6.7	17.5	13.0	27.1	73.8	42.3	77.5	159.6	105.8
LAGUNA	83.3	229.4	128.4	1.0	339.6	121.0	1.0	177.6	65.9	1.0	48.7	20.3	22.7	111.2	48.1	0.0	56.0	16.2	16.2	61.2	27.1	58.5	175.1	135.7	140.1	203.6	162.7
RIZAL	112.4	277.0	203.6	0.8	146.0	96.1	1.0	147.2	45.7	1.0	26.9	6.6	15.7	94.0	51.5	0.0	51.5	18.3	12.8	53.7	31.2	149.6	217.0	193.3	159.7	257.4	223.8
QUEZON	99.2	342.3	216.9	110.1	419.8	307.1	79.5	369.5	202.6	14.2	76.4	50.3	28.4	208.9	69.2	14.9	156.8	51.3	16.2	110.5	39.8	112.8	221.6	144.7	154.9	225.0	179.7
REGION IV-B (MIMAROPA)																											
MARINDUQUE	151.2	171.6	161.3	200.2	353.1	292.0	0.4	123.5	58.2	21.1	40.3	31.1	26.6	53.9	40.2	14.5	20.9	17.3	15.7	34.5	22.1	131.1	152.8	141.3	210.2	254.0	231.6
OCCIDENTAL MINDORO	116.6	130.4	125.2	17.6	447.2	155.6	1.0	407.4	115.4	1.0	103.8	39.7	0.0	16.6	5.7	0.0	54.7	22.0	0.0	13.4	7.3	89.8	199.4	169.5	131.9	349.7	296.0
ORIENTAL MINDORO	118.8	138.1	128.3	15.6	422.1	78.2	1.0	377.1	43.3	1.0	103.5	28.4	0.0	28.0	12.8	0.0	54.4	18.5	6.3	18.4	11.2	159.8	202.2	185.7	238.4	349.1	325.3
ROMBLON	125.9	155.8	144.4	91.0	245.5	176.0	1.0	121.3	59.4	1.0	16.4	4.7	9.1	25.8	17.2	9.2	32.0	18.4	9.4	29.3	20.8	108.5	166.0	124.1	167.8	298.3	216.1
PALAWAN	81.9	130.6	118.0	57.2	130.0	111.2	1.0	45.9	22.7	1.0	16.2	1.5	0.0	6.2	0.7	0.0	4.9	0.2	0.0	82.8	48.3	94.8	144.3	113.3	65.6	258.6	155.9
REGION V (BICOL)																											
ALBAY	149.7	164.4	156.4	289.0	399.3	379.8	224.7	288.7	263.6	11.2	33.9	15.0	38.3	90.7	62.2	75.1	125.8	107.0	44.2	69.3	56.5	125.6	149.2	140.0	103.3	157.0	114.4
CAMARINES NORTE	157.9	228.9	182.6	285.8	382.1	353.9	235.8	308.0	269.9	47.0	75.4	65.1	56.3	109.8	72.4	7.4	54.8	23.0	40.8	80.4	49.7	111.6	127.3	116.5	141.6	171.4	157.0
CAMARINES SUR	154.5	178.5	162.3	253.7	395.0	357.0	199.5	265.1	244.9	16.6	60.9	33.4	56.0	108.8	76.2	13.4	102.6	51.6	44.7	80.6	58.5	111.5	140.2	124.5	115.2	174.2	138.3
CATANDUANES	173.4	197.4	185.7	226.8	290.1	242.8	150.9	207.0	173.1	22.5	47.1	34.2	80.5	125.3	96.9	0.0	42.3	16.7	71.9	93.3	81.7	100.5	126.1	111.2	175.6	219.6	202.5
MASBATE	121.9	155.2	133.2	1.0	367.6	140.9	69.2	215.3	135.6	11.3	30.2	18.2	16.0	47.9	34.8	13.9	81.3	37.5	30.3	52.5	42.0	104.1	131.4	114.5	107.3	164.9	128.9
SORSOGON	125.3	153.0	141.0	172.1	381.5	289.6	124.1	381.4	274.8	11.0	39.4	23.9	52.4	69.4	59.8	74.7	123.4	100.1	49.0	63.8	56.0	134.0	153.9	147.0	102.9	146.2	118.5

Regional Forecast Quick Look

October 2015

Quezon City, Philippines

October 2015 - March 2016

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BACKGROUND:

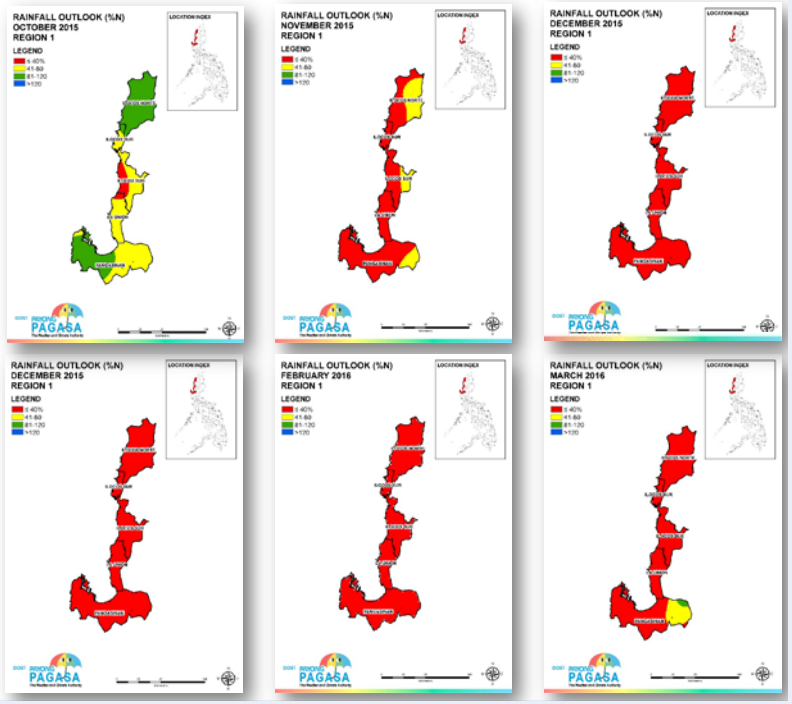
The Climate Outlook Forum, a platform to disseminate climate information and outlook in the coming seasons provides opportunity for regular dialogue between the Philippine's national meteorological-hydrological service provider (PAGASA) and its stakeholder institutions to promote (a) enhanced understanding of forecast products and services, including their limitations and uncertainties, and (b) better appreciation by PAGASA of users' information requirements.

Overview:

- Strong El Niño continues and further strengthens;
- This El Niño event is likely to persist until April-May-June 2016 Season.

MONTHLY FORECAST SUMMARY FOR REGION 1

RAINFALL MAPS



way below normal < 40% | below normal 41% - 80% | near normal 81% - 120% | above normal >120%

FORECAST RAINFALL ANALYSIS

REGION I	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH
ILOCOS NORTE	96.5	38.5	8.7	7.4	11.5	7.4
ILOCOS SUR	46.5	30.3	5.0	2.5	1.7	3.4
LA UNION	50.3	5.8	0.7	0.2	0.0	0.1
PANGASINAN	73.4	14.7	9.8	0.3	1.0	23.0

- **Ilocos Norte,** on the other hand, will likely experience near normal rainfall condition in October 2015; while below to way below normal rainfall conditions is expected from November 2015 to March 2016; might lead to drought.
- **Ilocos Sur, La Union and Pangasinan provinces,** in general, will likely experience below to way below normal rainfall conditions from October 2015 to March 2016; might lead to drought.

Dry spell = three (3) consecutive months of below normal (21%-60% reduction from average) rainfall conditions or two (2) consecutive months of way below normal (more than 60% reduction from average) rainfall condition.

Drought - three (3) consecutive months of way below normal (>60% reduction from average) or five (5) consecutive months of below normal (21%-60% reduction from average) rainfall condition.

Dry Spell/Drought Outlook	End of October 2015	End of December 2015	End of March 2016
Provinces Likely to Experience Dry Spell	None	Ilocos Norte, Pangasinan	None
Provinces Likely to Experience Drought	None	Ilocos Sur, La Union	Ilocos Norte, Ilocos Sur, La Union, Pangasinan

MONSOON / TROPICAL CYCLONES / OTHER WEATHER SYSTEMS

October 2015 – March 2016

- Strong El Niño continues;
- Transition (SW - NE monsoon), Northeast monsoon (Oct - Feb. 2016);
- Two (2) to five (5) tropical cyclones may develop from October 2015 to March 2016;
- Other weather systems: ITCZ, LPA, Occasional Thunderstorm, Ridge of HPA and Tail-end of Cold Front

Note: Outlook was based from forecasts made in August 2015.

Prepared by: Climate Monitoring and Prediction Sections (CLIMPS) *Tel/Fax: (02)-434-0955*

Issued: 2

STATUS OF EL NIÑO

- **A strong El Niño is now present in the tropical Pacific!**
- **Likely to strengthen further before the end of year 2015, and may last until Mar-Apr-May 2016 season;**
- **This 2015-16 El Niño event will potentially be among the four strongest since 1950 (*1972-73, 1982-83,1997-98).***

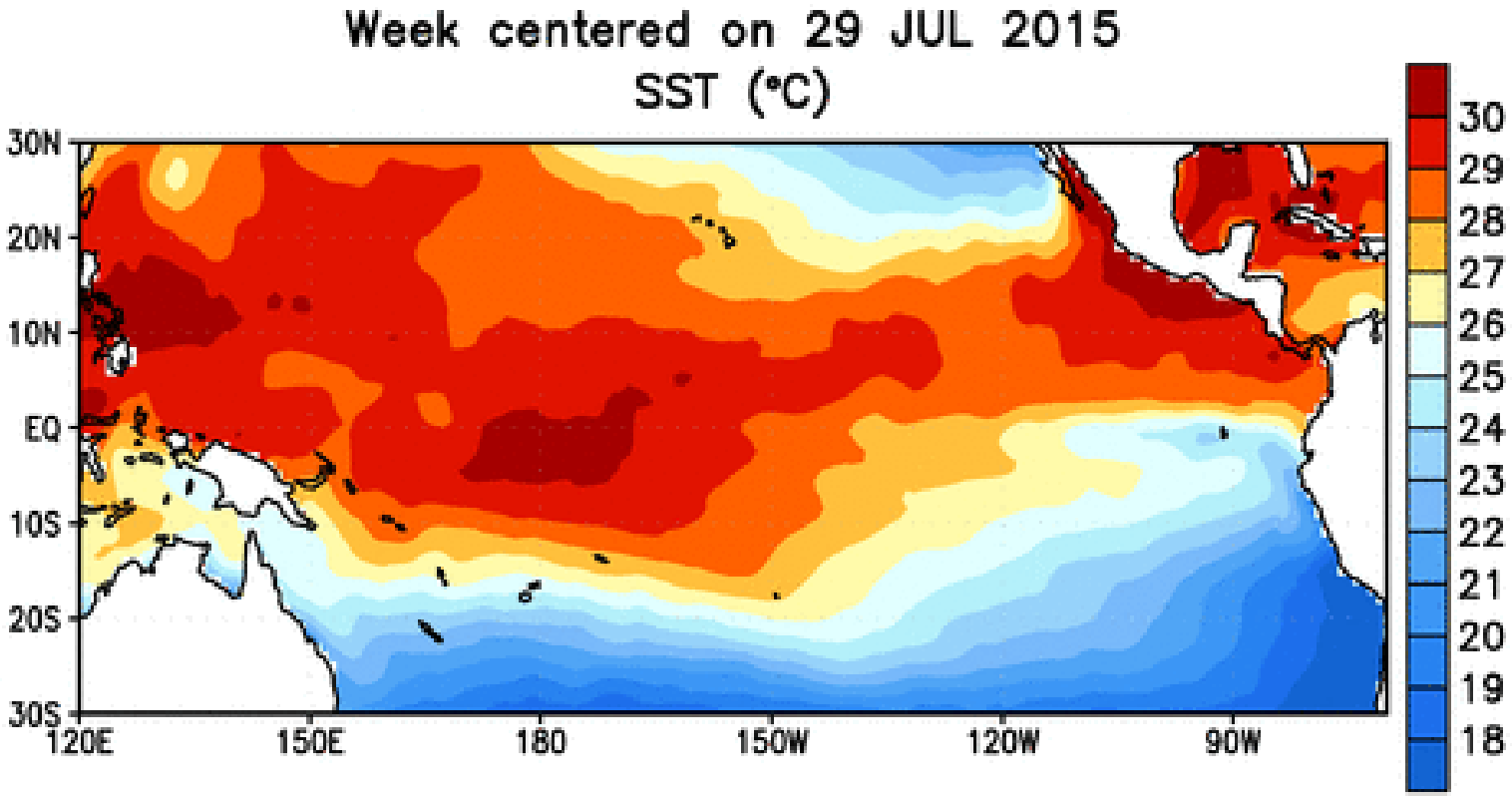
- Press Release, World Meteorological Organization (WMO), 01 September 2015

El Niño Episodes	Highest ONI Value	CATEGORY
AMJ 1997 – MAM 1998	2.4	Strongest
AMJ 1982 – MJJ 1983	2.2	Strongest
AMJ 1972 – FMA 1973	2.1	Strongest
AMJ 1965 – MAM 1966	1.9	Strong
MAM 1957 – JJA 1958	1.8	Strong
JAS 1986 – JFM 1988	1.6	Strong
AMJ 1991 – MJJ 1992	1.6	Strong
JJA 2009 – MAM 2010	1.6	Strong

GLOBAL ADVISORIES

INTERNATIONAL PREDICTION CENTERS	SUMMARY
World Meteorological Organization Weather • Climate • Water *As of: 1 September 2015*	• A mature and strong El Niño is now present in the tropical Pacific Ocean. • The majority of international climate outlook models suggest that the 2015-16 El Niño is likely to strengthen further before the end of the year.
IRI **CPC/ International Research Institute (IRI)** *As of : 19 October 2015*	• There is an approximately 95% chance that El Niño will continue through Northern Hemisphere winter (DJF) 2015-16, gradually weakening through spring (MAM) 2016.
Australian Government Bureau of Meteorology **Bureau of Meteorology (BOM)-Australia** *As of : 13 October 2015*	• The strong El Niño is expected to last until at least the end of the year before declining in the first quarter of 2016.
Tokyo Climate Center/JMA -Japan *As of : 9 October 2015*	• El Niño conditions continue in the equatorial Pacific. • It is likely that El Niño conditions will continue through the Northern Hemisphere spring.
APCC APEC CLIMATE CENTER **APEC Climate Center, Busan, S. Korea** *As of : 25 September 2015*	• Further strengthening of the El Niño, with the peak of Nino3.4 index being expected during the last quarter of 2015; • The forecasts for JFM 2016 suggest persistence of the El Niño episode with a belt of above-normal rainfall in the equatorial Pacific surrounded by the areas of **below** normal precipitation.

Strong El Niño is now present in the tropical Pacific!



Sea Surface Temperature Animation

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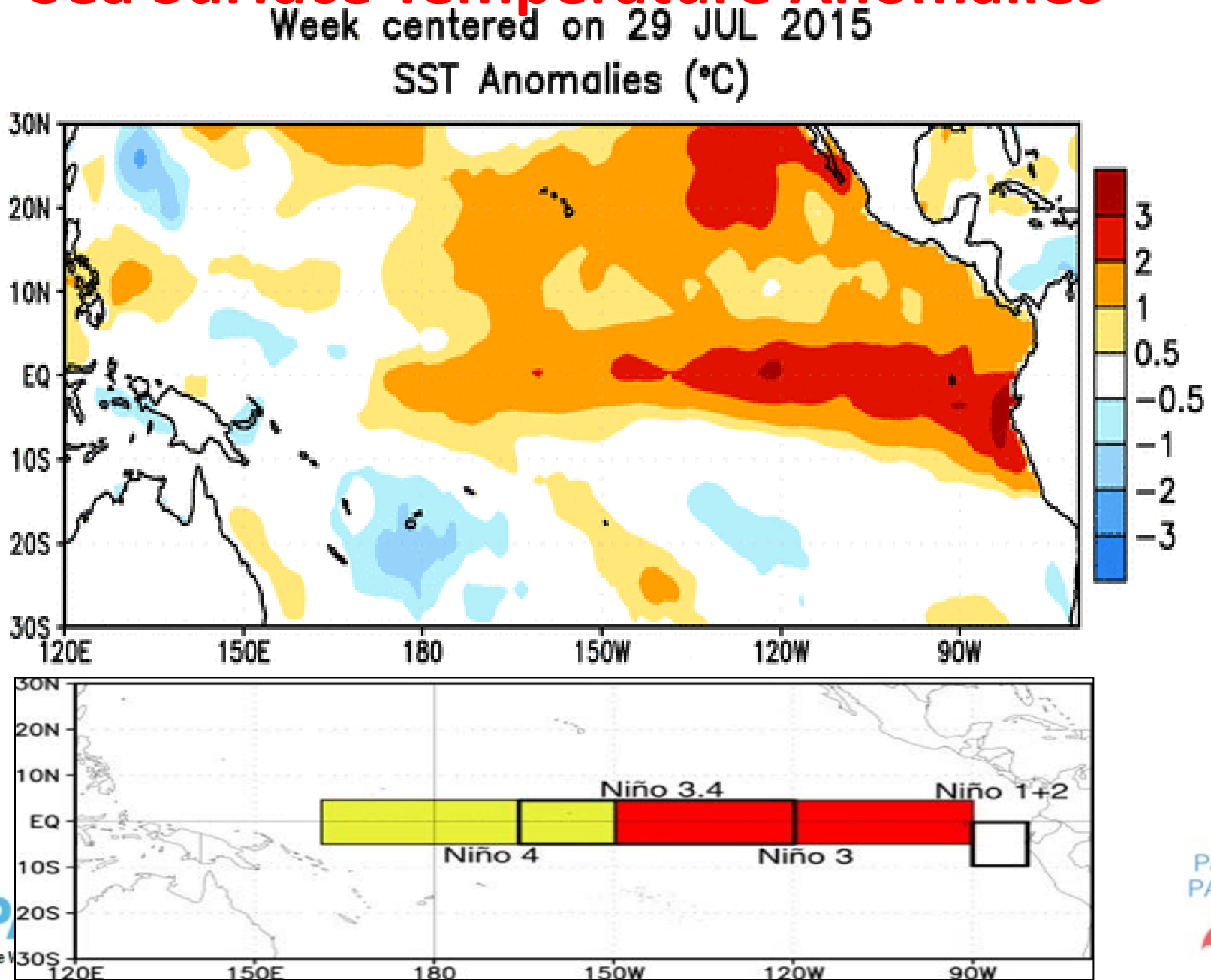
Sea Surface Temperature Anomalies



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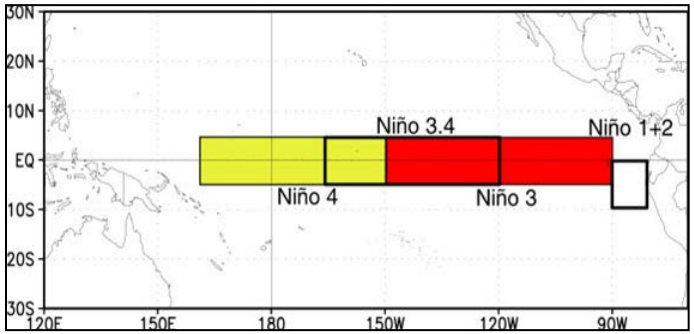
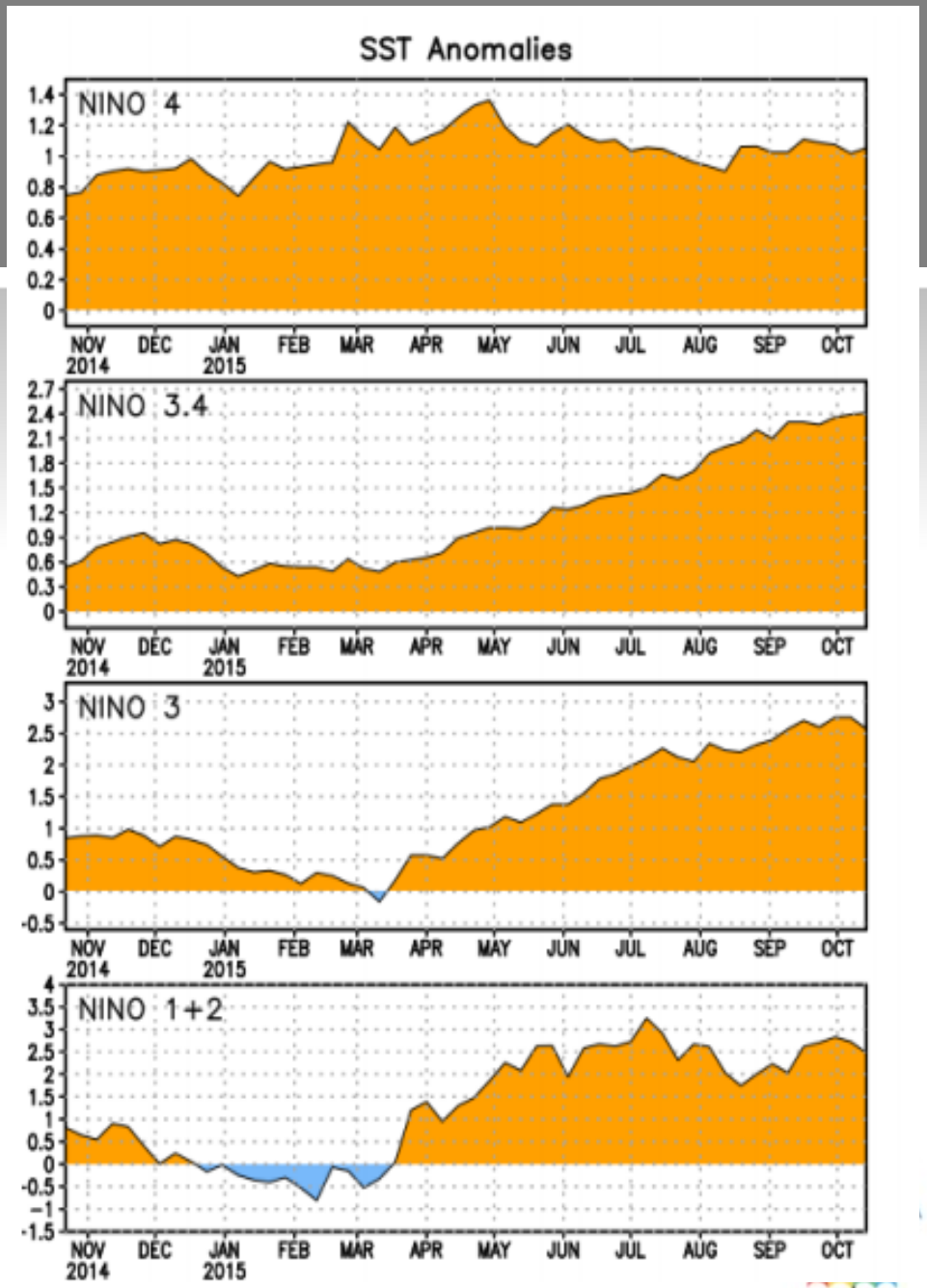
Niño Region SST Departures (°C) Recent Evolution

The latest 4-week SST departures are:

	Sept 28	Oct. 5	Oct. 12	Oct.19
Niño 4	1.1°C	1.1°C	1.0°C	1.1°C
Niño 3.4	2.3°C	2.4°C	2.4°C	2.4°C
Niño 3	2.6°C	2.8°C	2.8°C	2.6°C
Niño 1+2	2.7°C	2.8°C	2.7°C	2.5°C





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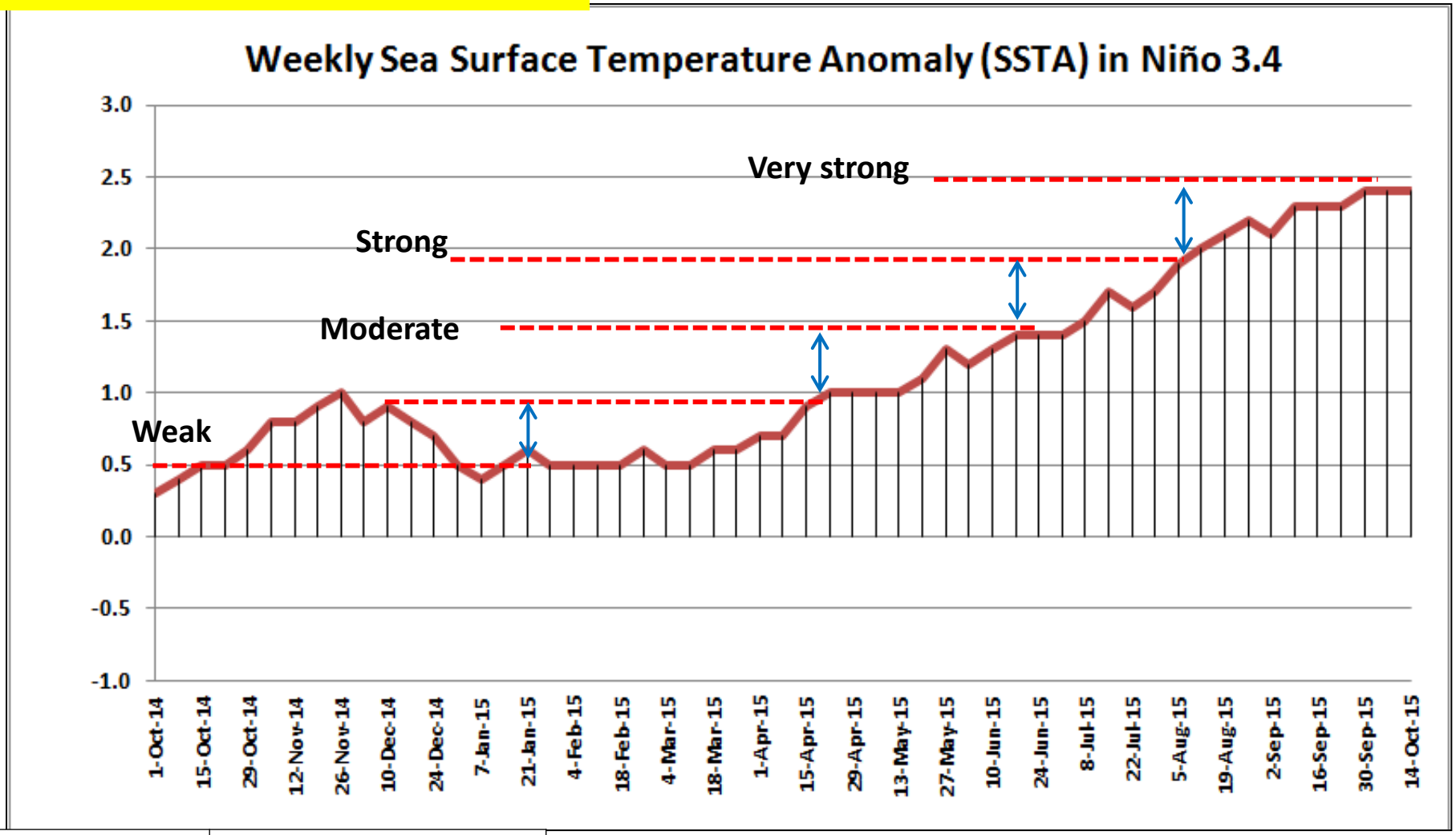
RECENT EL NIÑO CONDITION



ONI Value	CATEGORY
0.5 - 0.9	Weak
1.0 - 1.4	Moderate
1.5 – 1.9	Strong
> or = 2.0	Very strong

http://www.cpc.ncep.noaa.gov/data/indices/wksst8110.for

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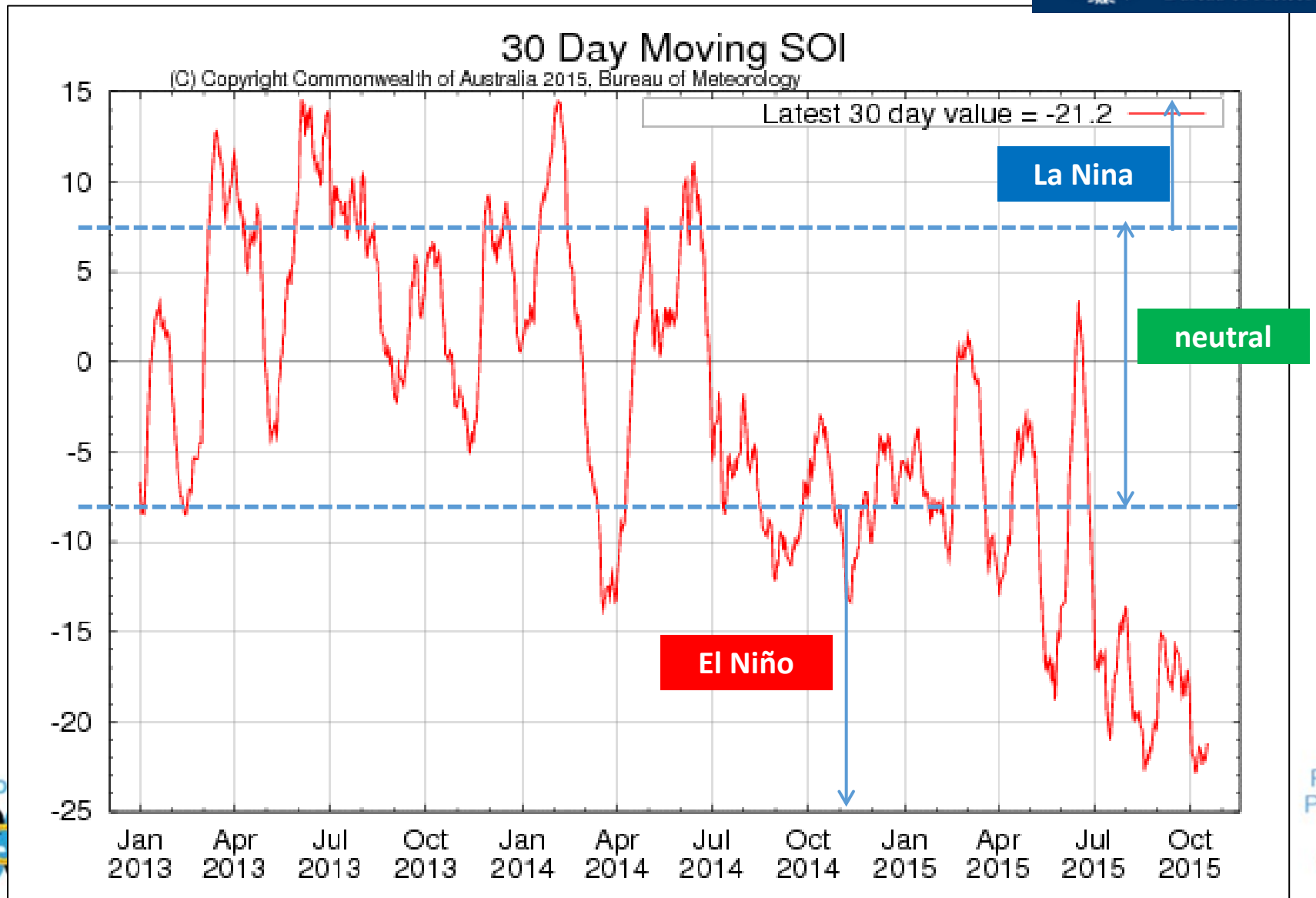
RECENT EL NINO CONDITION – Atmospheric Indicator
(Southern Oscillation Index)

Australian Government
Bureau of Meteorology



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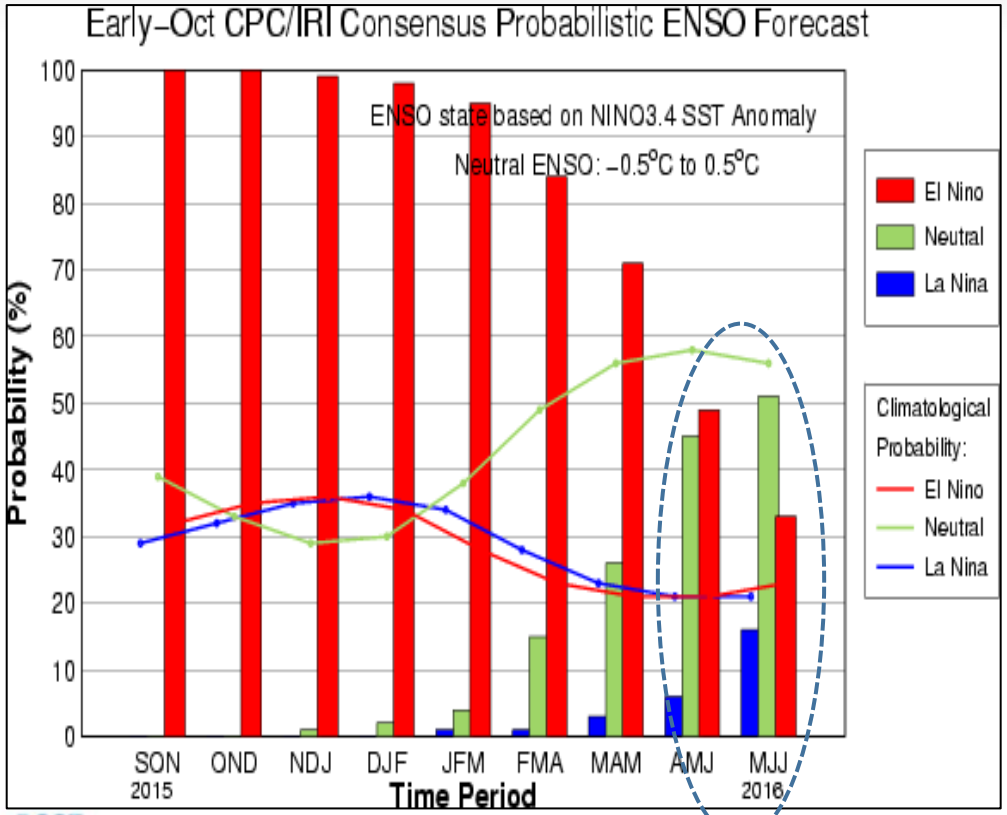
CPC/IRI Consensus Probabilistic ENSO Forecast

Published: October 8, 2015

The chance of El Niño is approximately 95% through Northern Hemisphere winter and is just under 50% by late spring (AMJ) 2016.



Season	La Niña	Neutral	El Niño
SON 2015	~0%	~0%	100%
OND 2015	~0%	~0%	100%
NDJ 2015	~0%	1%	99%
DJF 2015	~0%	2%	98%
JFM 2016	1%	4%	95%
FMA 2016	1%	15%	84%
MAM 2016	3%	26%	71%
AMJ 2016	6%	45%	49%
MJJ 2016	16%	51%	33%

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IRI/CPC Pacific Niño 3.4 SST Model Outlook

Most models indicate that Niño 3.4 will be above +1.5ºC (a "strong" El Niño) during late 2015 into early 2016.

Positive anomalies are predicted to weaken through the Northern Hemisphere Spring 2016.

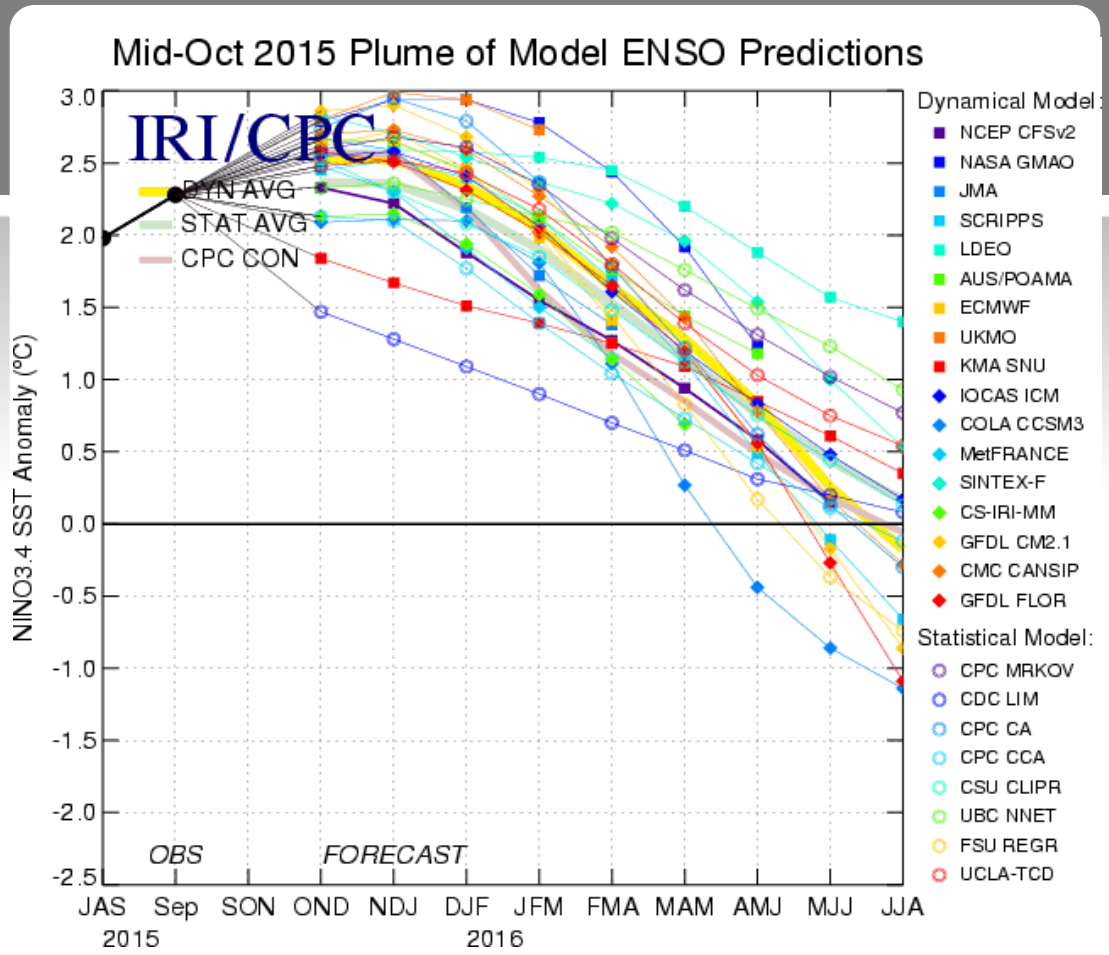

Figure provided by the International Research Institute (IRI) for Climate and Society (updated 13 October 2015).

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And so……

PAGASA ENSO Alert System Status is still:

El Niño Advisory

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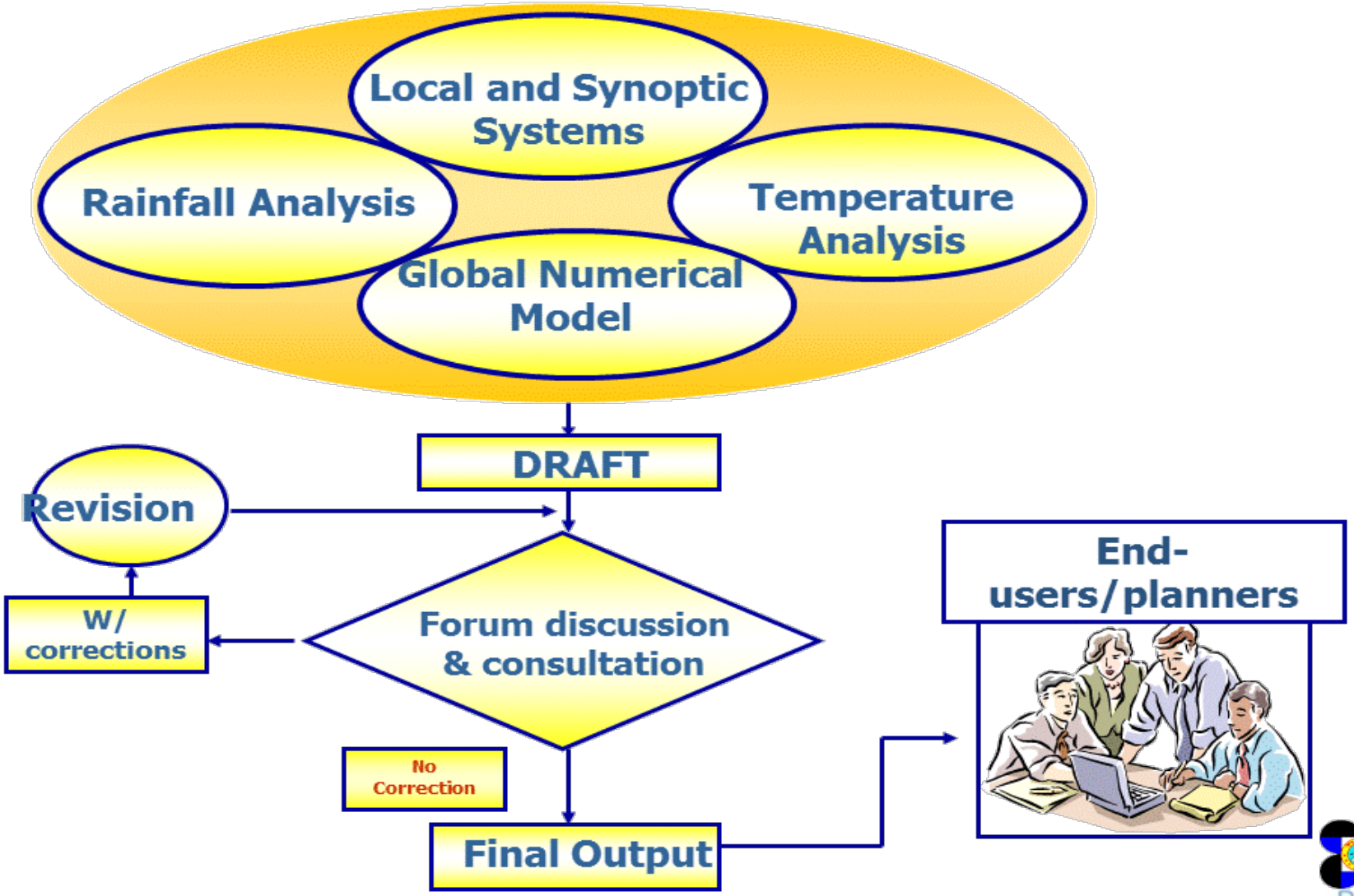
Methodologies and Procedure



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DRY SPELL & DROUGHT OUTLOOK

(OCTOBER 2015 – JUNE 2016)

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Updated:
OCTOBER 22, 2015

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Dry spell / Drought Outlook

Dry spell = three (3) consecutive months of below normal (21%-60% reduction from average) rainfall conditions;

or

two (2) consecutive months of way below normal (more than 60% reduction from average) rainfall conditions.

Drought - three (3) consecutive months of way below normal (>60% reduction from average);

or

five (5) consecutive months of below normal (21%-60% reduction from average) rainfall condition.

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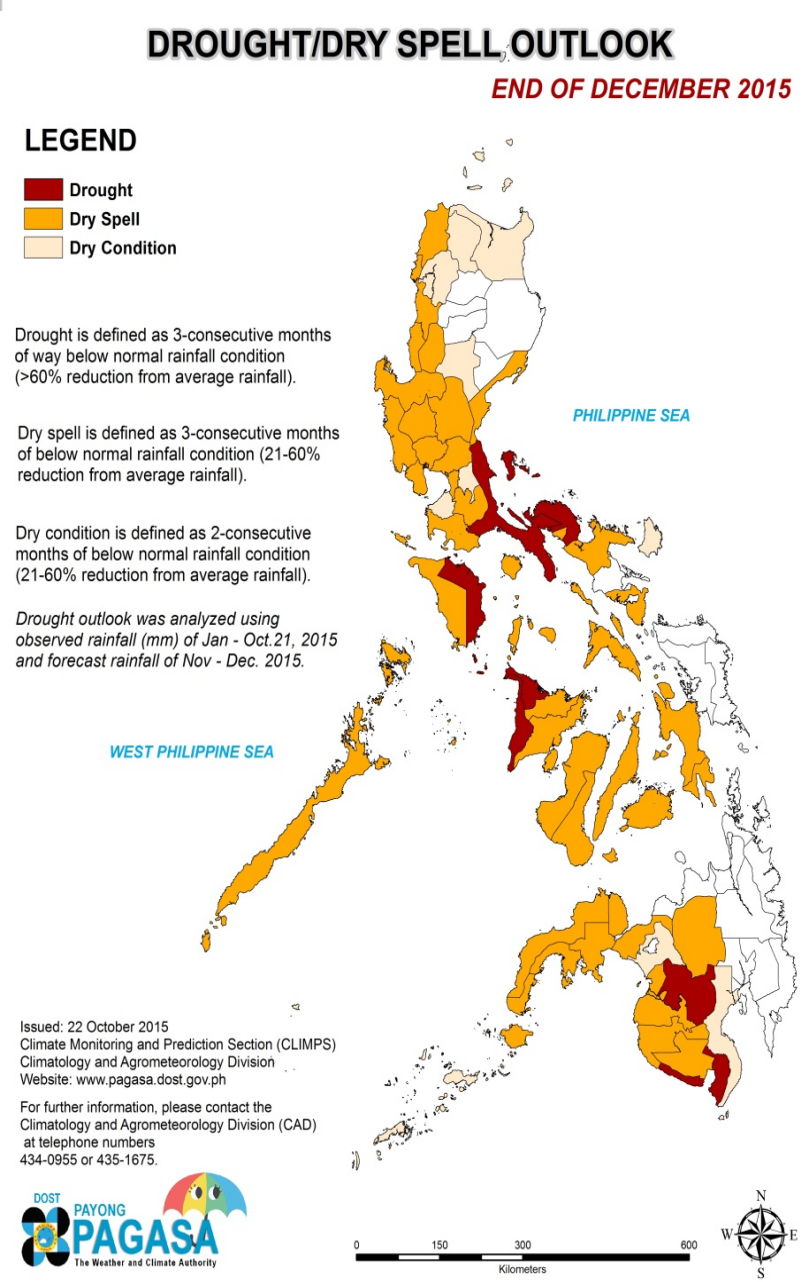
FORECAST RAINFALL in Percent of Normal (OCT 2015 - JUNE 2016) as of Oct. 2, 2015

PROVINCE	OCT 2015	NOV 2015	DEC 2015	JAN 2015	FEB 2015	MAR 2015	APR 2015	MAY 2015	JUN 2015
REGION I									
ILOCOS NORTE	96.5	38.5	8.7	7.4	11.5	7.4	9.3	82.7	84.0
ILOCOS SUR	46.5	30.3	5.0	2.5	1.7	3.4	10.3	104.7	90.6
LA UNION	50.3	5.8	0.7	0.2	0.0	0.1	10.7	88.0	90.6
PANGASINAN	73.4	14.7	9.8	0.3	1.0	23.0	10.9	77.7	71.5

DRY SPELL / DROUGHT OUTLOOK BY END OF DECEMBER 2015



OVER DIFFERENT PROVINCES END OF DECEMBER 2015

PROVINCES THAT WILL LIKELY EXPERIENCE DRY CONDITION	
LUZON (7)	ABRA, APAYAO, CAGAYAN,NUEVA VIZCAYA,CAVITE RIZAL, CATANDUANES
VISAYAS	NONE
MINDANAO (3)	DAVAO DEL SUR, LANAO DEL SUR, SULU, TAWI-TAWI

PROVINCES THAT WILL LIKELY EXPERIENCE DRY SPELL	
LUZON	BENGUET, ILOCOS NORTE, ILOCOS SUR, LA UNION PANGASINAN, BATAAN, BULACAN, NUEVA ECIJA, PAMPANGA, TARLAC, ZAMBALES, AURORA, METRO MANILA, BATANGAS, LAGUNA, MARINDUQUE, OCCIDENTAL MINDORO,ROMBLON,PALAWAN CAMARINES SUR,,MASBATE, SORSOGON
VISAYAS	CAPIZ, GUIMARAS, ILOILO, NEGROS OCCIDENTAL, BOHOL, CEBU, NEGROS ORIENTAL, SIQUIJOR BILIRAN, LEYTE, SOUTHERN LEYTE
MINDANAO	ZAMBOANGA DEL NORTE, ZAMBOANGA DEL SUR, ZAMBOANGA SIBUGAY, BUKIDNON. LANAO DEL NORTE, MISAMIS OCCIDENTAL, SOUTH COTABATO, SULTAN KUDARAT, BASILAN, MAGUINDANAO

PROVINCES THAT WILL LIKELY EXPERIENCE DROUGHT	
LUZON (3)	QUEZON, ORIENTAL MINDORO, CAMARINES NORTE
VISAYAS (2)	AKLAN, ANTIQUE
MINDANAO (2)	NORTH COTABATO, SARANGANI

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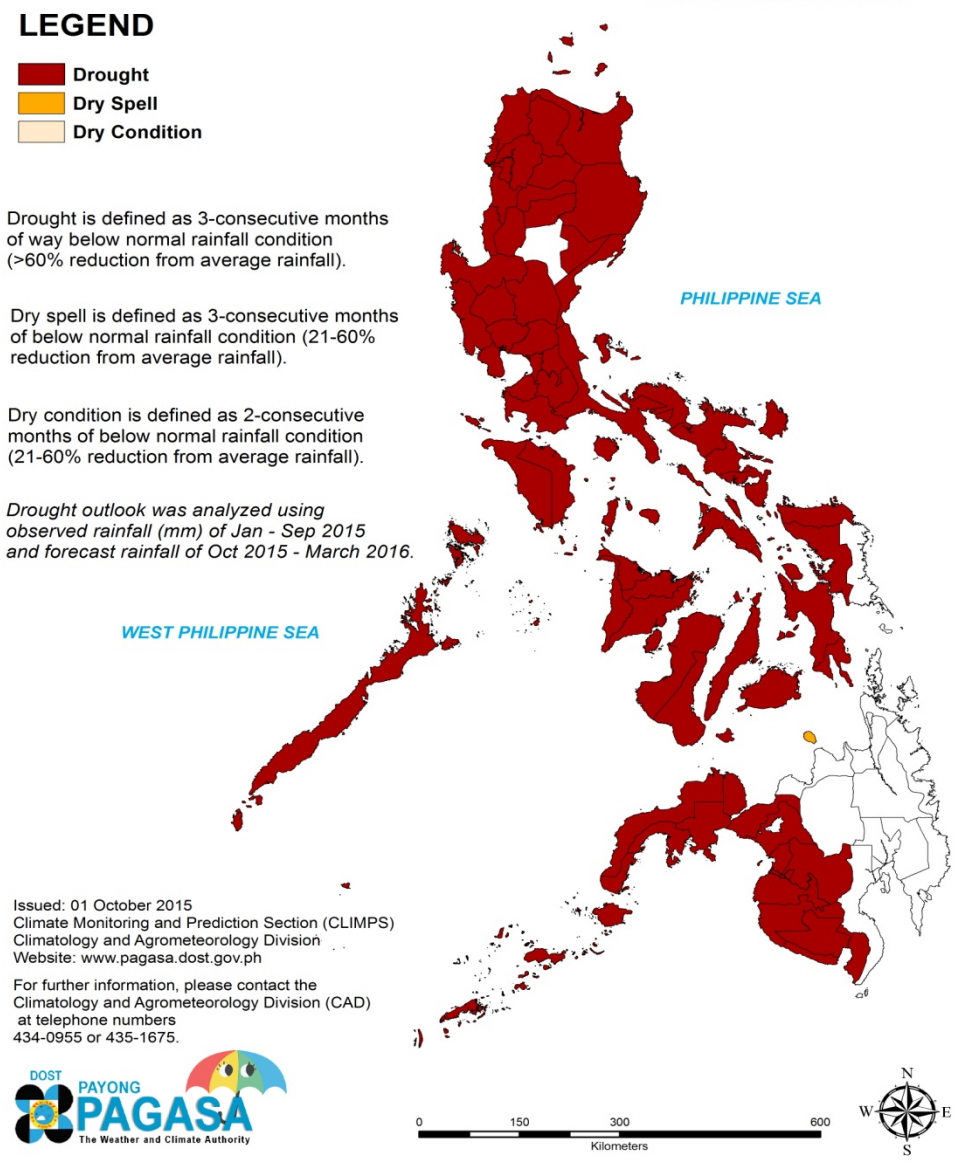
DROUGHT/DRY SPELL OUTLOOK

End of March 2016



≈ 85% of the country will likely experience DROUGHT/DRY SPELL by end of March 2016

OVER DIFFERENT PROVINCES BY END OF MARCH 2016

PROVINCES LIKELY TO EXPERIENCE DROUGHT

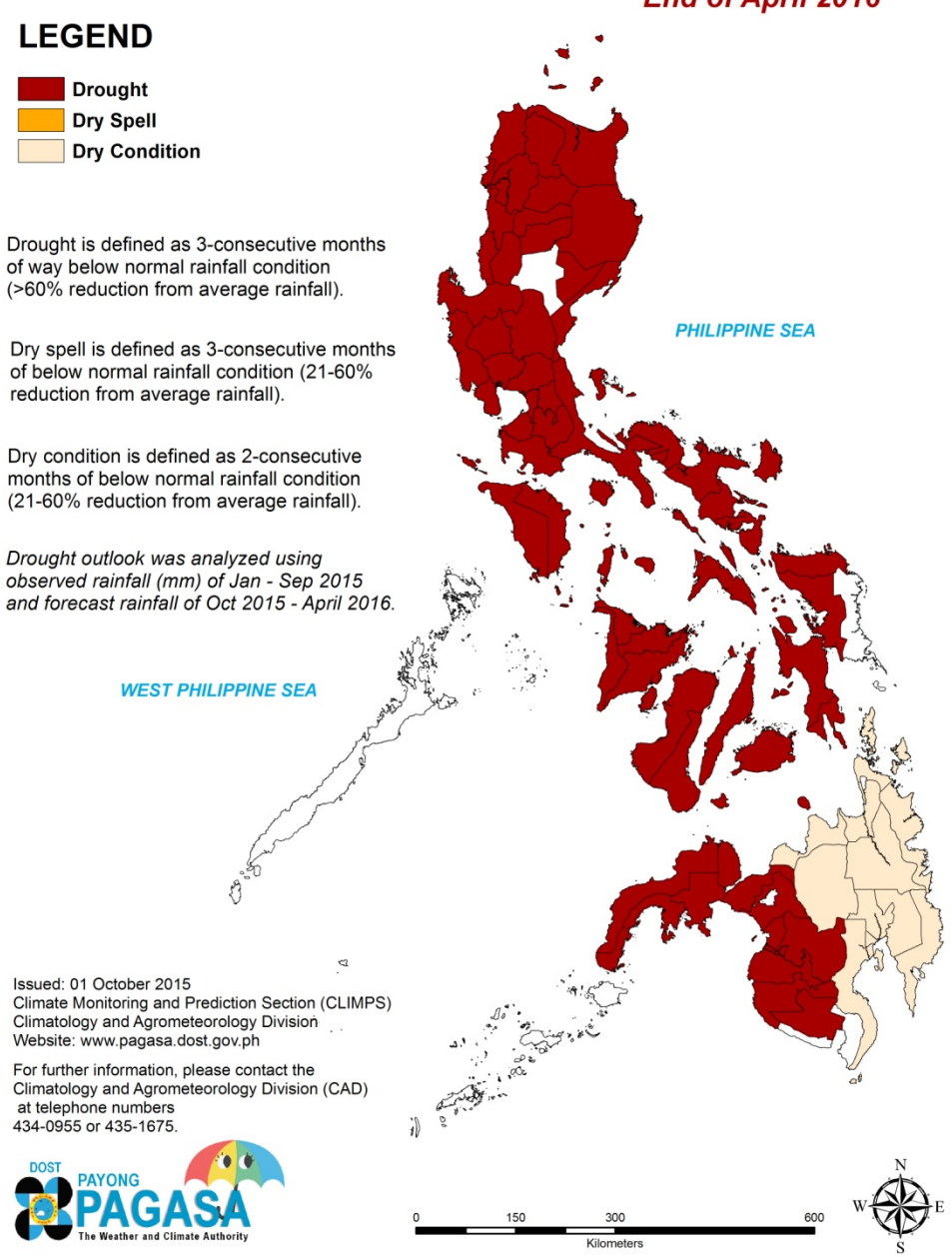
LUZON (37)	ABRA, BENGUET, IFUGAO, KALINGA, APAYAO,MOUNTAIN PROVINCE,ILOCOS NORTE,ILOCOS SUR,LA UNION, PANGASINAN, CAGAYAN,ISABELA,QUIRINO, BATAAN, BULACAN, NUEVA ECIJA,PAMPANGA,TARLAC, ZAMBALES, AURORA, METRO MANILA,BATANGAS, CAVITE, LAGUNA, RIZAL,QUEZON,MARINDUQUE, OCCIDENTAL MINDORO,ORIENTAL MINDORO, ROMBLON,PALAWAN,ALBAY,CAMARINES NORTE, CAMARINES SUR,CATANDUANES, MASBATE, SORSOGON * NUEVA VISCAYA - WILL LIKELY EXPERIENCE DROUGHT UNTIL FEB 2016
VISAYAS (15)	AKLAN,ANTIQUE,CAPIZ,GUIMARAS,ILOILO,NEGROS OCCIDENTAL,BOHOL,CEBU,NEGROS ORIENTAL,SIQUIJOR, BILIRAN,LEYTE,NORTHERN SAMAR,SAMAR (WESTERN SAMAR),SOUTHERN LEYTE
MINDANAO (14)	ZAMBOANGA DEL NORTE, ZAMBOANGA DEL SUR, ZAMBOANGA SIBUGAY, LANAO DEL NORTE,MISAMIS OCCIDENTAL,SOUTH COTABATO,NORTH COTABATO, SARANGANI,SULTAN KUDARAT,BASILAN, MAGUINDANAO,LANAO DEL SUR, SULU, TAWI-TAWI

PROVINCES LIKELY TO EXPERIENCE DRY SPELL

LUZON (1)	BATANES
VISAYAS	NONE
MINDANAO (1)	CAMIGUIN

DROUGHT/DRY SPELL OUTLOOK

End of April 2016

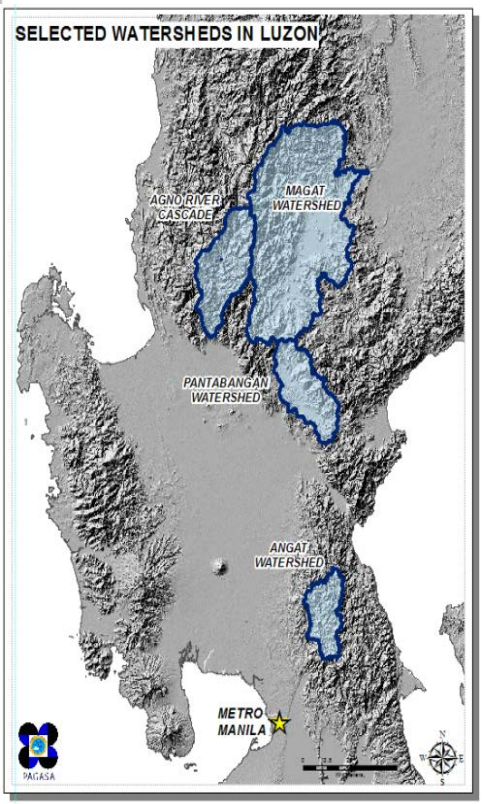


OVER DIFFERENT PROVINCES END OF APRIL 2016

PROVINCES LIKELY TO EXPERIENCE DRY CONDITION	
MINDANAO (10)	BUKIDNON, MISAMIS ORIENTAL, COMPOSTELA VALLEY DAVAO, DAVAO DEL SUR, DAVAO ORIENTAL, AGUSAN DEL NORTE, AGUSAN DEL SUR, SURIGAO DEL NORTE, SURIGAO DEL SUR
PROVINCES LIKELY TO EXPERIENCE DRY SPELL	
	none
PROVINCES LIKELY TO EXPERIENCE DROUGHT	
LUZON (37)	ABRA, BENGUET, IFUGAO, KALINGA, APAYAO,MOUNTAIN PROVINCE, ILOCOS NORTE, ILOCOS SUR, LA UNION, PANGASINAN,BATANES, CAGAYAN, ISABELA,QUIRINO, BATAAN,BULACAN, NUEVA ECIJA, PAMPANGA,TARLAC, ZAMBALES,AURORA,METRO MANILA,BATANGAS, CAVITE,LAGUNA,RIZAL,QUEZON,MARINDUQUE, OCCIDENTAL MINDORO,ORIENTAL MINDORO, ROMBLON ALBAY,CAMARINES NORTE,CAMARINES SUR, CATANDUANES, MASBATE, SORSOGON
VISAYAS (15)	AKLAN,ANTIQUE, CAPIZ,GUIMARAS,ILOILO,NEGROS OCCIDENTAL,BOHOL,CEBU,NEGROS ORIENTAL,SIQUIJOR, BILIRAN,LEYTE, NORTHERN SAMAR,SAMAR (WESTERN SAMAR),SOUTHERN LEYTE
MINDANAO (11)	ZAMBOANGA DEL NORTE. ZAMBOANGA DEL SUR,ZAMBOANGA SIBUGAY,CAMIGUIN, LANAO DEL NORTE,MISAMIS OCCIDENTAL,SOUTH COTABATO,NORTH COTABATO, SULTAN KUDARAT,MAGUINDANAO,LANAO DEL SUR

≈ 79% of the country will likely experience DROUGHT by end of April 2016

PAGASA



FORECAST WATERSHED RAINFALL for selected Dams and Lakes in (mm) and (%N)

FORECAST WATERSHED RAINFALL (OCTOBER 2015 - JUNE 2016)

	NAME	Angat Watershed	Lake Buhi	Lake Lanao	Magat Watershed	Malinao Watershed	Pantabangan Watershed	San Roque Cascade WS
OCTOBER 2015	MIN	232.0	152.3	197.1	72.8	136.3	114.2	73.2
	MAX	285.7	162.9	296.0	132.4	148.3	238.9	203.4
	MEAN	262.2	157.5	236.6	97.5	142.1	178.7	112.5
	%NORMAL	86.7	43.1	102.1	55.3	82.1	78.8	48.0
NOVEMBER 2015	MIN	129.2	367.4	69.7	27.5	97.1	23.1	10.1
	MAX	156.4	399.3	184.0	177.5	124.5	144.9	49.2
	MEAN	147.9	386.3	103.5	94.7	110.4	63.5	22.1
	%NORMAL	54.1	80.9	53.3	73.3	69.7	38.9	32.8
DECEMBER 2015	MIN	16.3	237.9	50.6	0.0	75.8	0.0	0.0
	MAX	94.8	276.2	101.3	12.0	81.5	40.8	7.3
	MEAN	55.4	254.0	67.2	0.3	78.5	8.4	2.7
	%NORMAL	21.1	49.8	50.6	3.8	55.7	4.3	10.3
JANUARY 2016	MIN	0.0	11.7	22.4	0.0	0.0	0.0	0.0
	MAX	19.1	45.5	61.1	14.1	4.2	19.5	1.5
	MEAN	8.4	24.9	45.2	4.2	1.4	5.2	0.4
	%NORMAL	6.5	9.6	45.3	10.8	6.5	3.2	1.3
FEBRUARY 2016	MIN	34.4	41.3	18.8	4.4	77.0	18.0	1.3
	MAX	73.2	77.7	130.8	28.6	93.5	51.8	12.9
	MEAN	54.9	67.5	76.4	16.7	83.9	32.2	6.5
	%NORMAL	32.1	35.3	71.6	9.7	49.7	16.2	4.0
MARCH 2016	MIN	0.9	30.0	1.8	19.5	11.3	0.0	1.9
	MAX	53.2	123.4	27.6	53.2	13.3	60.5	35.6
	MEAN	24.1	78.2	16.0	32.4	12.1	21.2	24.6
	%NORMAL	15.6	44.1	30.8	85.7	24.9	28.8	76.1
APRIL 2016	MIN	23.7	46.2	45.7	11.5	44.8	19.7	12.0
	MAX	44.6	62.4	96.5	22.4	49.7	32.4	16.4
	MEAN	34.5	55.3	70.7	16.7	47.3	24.2	14.1
	%NORMAL	26.4	37.4	57.0	14.7	45.6	19.2	15.1
MAY 2016	MIN	195.6	114.4	119.5	145.9	53.7	147.4	168.9
	MAX	211.3	146.0	250.6	183.9	56.1	196.9	276.3
	MEAN	205.2	130.1	188.7	159.4	54.8	163.5	211.5
	%NORMAL	97.9	77.3	98.8	98.3	84.2	98.5	91.8
JUNE 2016	MIN	191.9	105.1	160.9	84.3	100.5	155.7	97.9
	MAX	234.0	139.0	458.0	154.8	117.3	210.2	336.8
	MEAN	210.9	121.1	293.8	109.5	108.4	187.6	178.8
	%NORMAL	79.1	58.7	104.6	93.4	92.6	82.3	71.9

LEGEND:

< or =40%	way below normal
41-80	below normal
81 - 120	near normal
>120	above normal

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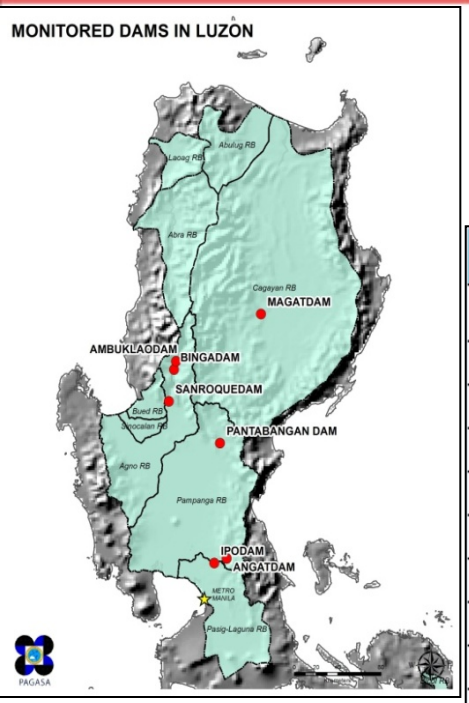

FORECAST RAINFALL OVER SELECTED DAM AREAS in (mm) and (%N) FOR OCT. 2015 – FEB. 2016

SITES	OCTOBER		NOVEMBER		DECEMBER		JANUARY 2016		FEBRUARY 2016	
	mm	% Normal	mm	% Normal	mm	% Normal	mm	% Normal	mm	% Normal
AMBUKLAODAM	114.2	46.3	17.1	33.9	0.6	3.7	0.3	0.8	7.0	4.1
ANGATDAM	237.6	85.4	153.1	67.0	32.3	16.0	0.1	0.3	33.8	22.4
APUNAN	102.6	46.9	33.2	49.7	8.8	0.0	0.9	3.2	4.9	3.3
BADAYAN	118.6	46.5	48.6	56.9	0.0	0.0	1.2	5.3	6.3	4.2
BINGADAM	111.0	46.2	14.1	22.6	18.3	19.0	0.0	0.0	6.5	3.9
BOBOK	86.6	47.6	24.7	41.3	6.8	6.2	0.4	1.6	9.5	5.5
BINGA	126.4	67.7	39.3	44.3	25.6	5.6	0.0	1.2	20.1	11.1
BUYOC	94.3	53.5	122.2	88.2	60.7	0.0	5.1	15.5	16.7	9.9
DANTOR	112.5	56.8	138.8	94.9	54.2	0.0	3.4	15.9	18.3	10.6
DUMAYUP	96.9	54.8	132.2	85.9	5.9	4.6	8.7	17.1	23.3	13.3
HALONG	104.4	52.9	100.1	81.0	6.0	0.0	2.6	11.6	14.3	8.4
IPODAM	199.4	74.5	143.5	68.3	0.5	13.7	0.0	0.0	12.4	11.8
MAGATDAM	109.8	52.7	180.2	104.5	0.0	8.1	8.1	23.7	26.0	15.0
MAPUTI	264.0	89.4	148.0	49.2	0.0	22.7	10.4	8.3	58.1	33.3
MARIKIT	227.7	85.7	122.0	40.8	0.0	9.3	16.0	7.6	50.5	23.6
MATULID	261.8	84.4	151.0	61.5	5.4	19.7	6.7	4.9	54.7	32.8
NORZAGARAY	197.9	76.7	140.4	64.4	0.0	14.6	0.0	0.0	6.0	8.5
PADALIS	190.9	82.2	73.5	38.7	0.0	3.4	6.7	4.2	39.1	18.8
PANTABANGAN DAM	184.0	81.9	28.2	25.8	0.0	0.1	0.3	0.1	20.3	12.8
SANROQUEDAM	126.5	54.3	19.5	24.5	0.0	20.4	0.0	0.0	3.1	2.2
STODOMINGO	88.4	56.8	83.1	67.3	0.0	4.7	4.8	9.3	18.8	10.7
TALAGUIO	237.2	88.7	141.5	53.6	0.0	18.8	2.7	3.6	36.1	22.7

LEGEND:

- < or =40% way below normal
- 41-80 below normal
- 81 - 120 near normal
- >120 above normal

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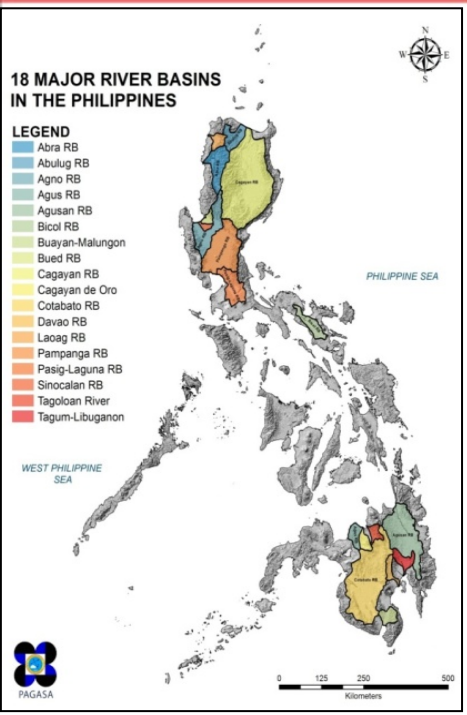

FORECAST RAINFALL OVER SELECTED RIVER BASINS
in millimeter and percent of normal (%N)

CATCHMENT	OCTOBER 2015				NOVEMBER 2015				DECEMBER 2015				JANUARY 2016				FEBRUARY 2016			
	MIN	MAX	MEAN	%Normal	MIN	MAX	MEAN	%Normal	MIN	MAX	MEAN	%Normal	MIN	MAX	MEAN	%Normal	MIN	MAX	MEAN	%Normal
Abra RB	64.9	213.1	157.8	71.9	8.8	131.2	65.1	51.4	0.0	9.8	0.5	2.9	0.2	9.2	2.4	7.2	0.1	9.7	4.4	7.1
Abulug RB	142.0	309.8	231.3	104.5	40.8	140.4	93.6	53.3	5.1	93.4	38.3	21.1	7.8	56.0	25.7	28.8	6.6	30.2	16.6	19.9
Agno RB	72.8	217.7	121.1	62.6	0.0	65.7	25.3	27.8	0.5	5.9	3.4	12.5	0.0	3.8	1.1	2.3	0.0	15.8	3.1	2.0
Agus RB	184.2	256.2	208.4	107.3	70.1	119.0	88.0	50.9	0.1	6.8	4.2	10.8	31.3	48.8	41.9	41.4	56.8	120.5	83.6	74.3
Agusan RB	77.2	278.9	181.3	78.1	168.4	522.9	310.8	143.4	0.0	15.7	6.4	12.2	0.6	279.0	108.3	23.1	192.5	321.2	254.0	97.2
Bicol RB	153.8	173.3	158.5	41.7	353.3	399.3	382.5	79.2	58.2	86.4	70.6	55.0	11.8	64.4	30.7	11.7	50.7	79.2	68.5	35.8
Buayan-Malungon	57.6	224.0	137.0	94.9	36.5	111.4	72.5	60.9	69.8	409.8	199.7	70.3	11.9	27.1	17.5	15.1	60.1	122.2	88.9	80.7
Bued RB	124.4	228.0	174.5	63.1	0.8	25.4	12.0	12.9	240.5	276.4	253.6	49.1	0.0	0.2	0.0	0.0	0.0	5.0	1.0	0.7
Cagayan de Oro	204.0	305.7	253.7	107.1	69.7	98.9	80.2	50.0	34.5	61.8	48.2	53.2	20.2	42.0	32.7	32.2	85.8	130.8	111.8	78.1
Cagayan RB	72.8	362.7	180.5	66.7	27.6	280.3	178.5	85.3	0.0	174.0	39.0	18.5	0.0	58.1	12.0	19.9	3.5	103.2	32.7	23.9
Cotabato RB	64.9	361.9	257.2	97.9	52.9	192.1	132.7	72.2	49.9	63.2	55.8	48.0	2.4	72.1	33.2	38.7	27.5	201.8	92.7	75.5
Davao RB	276.4	360.8	323.5	124.0	144.3	169.9	158.8	89.5	54.2	73.0	60.2	46.3	18.3	31.9	22.6	19.3	124.0	186.9	157.4	85.9
Laoag RB	87.6	201.3	170.3	103.7	3.0	76.4	43.0	42.9	0.0	23.5	7.1	5.3	0.0	17.1	5.8	8.4	0.0	8.1	3.1	10.8
Pampanga RB	86.1	284.3	148.6	68.5	0.7	225.7	67.4	33.2	26.5	80.6	49.7	43.3	0.0	36.1	4.3	5.9	0.0	82.4	24.7	14.4
Pasig-Laguna RB	83.3	263.3	143.1	47.0	0.0	339.6	96.2	50.9	0.0	105.4	18.5	14.7	0.0	56.7	9.9	20.7	0.0	103.0	36.5	26.4
Sinocalan RB	118.5	185.7	146.7	72.5	0.0	29.7	17.0	19.3	0.0	214.9	36.2	13.4	0.0	1.1	0.3	0.4	0.0	2.7	0.2	0.2
Tagoloan River	210.5	292.1	255.8	99.7	90.3	168.6	122.1	77.0	51.3	67.2	58.3	49.2	2.8	22.8	11.6	13.9	131.4	186.2	161.1	86.4
Tagum-Libuganon	130.7	280.8	199.4	83.6	149.7	283.2	191.7	108.1	61.0	230.8	111.2	59.3	30.1	168.7	75.8	30.5	188.7	275.9	225.3	96.3

LEGEND:

< or =40%	way below normal
41-80	below normal
81 - 120	near normal
>120	above normal

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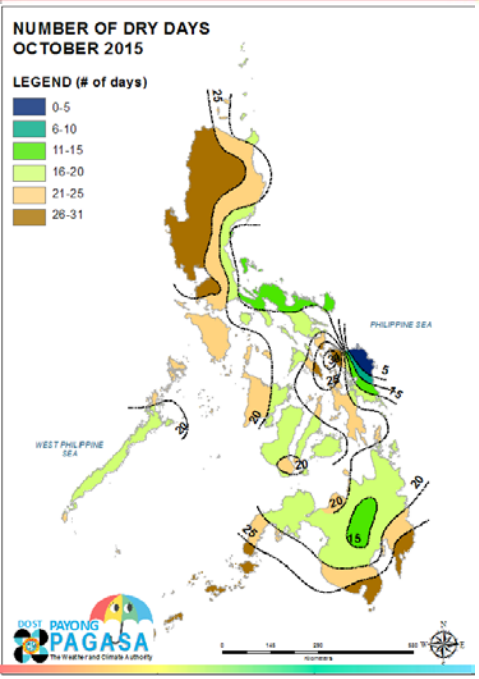

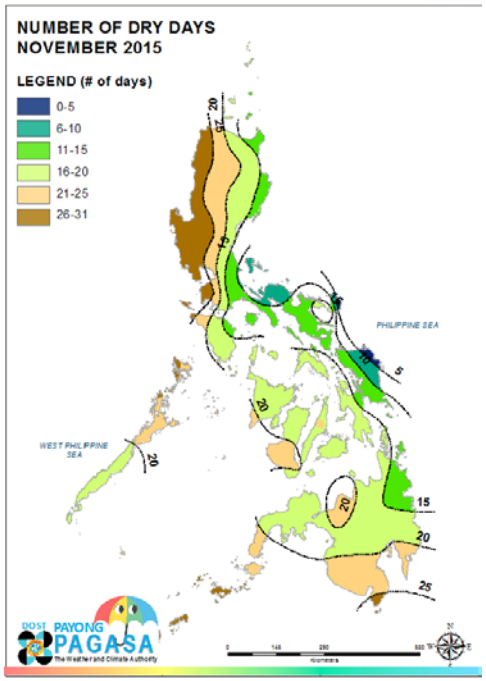

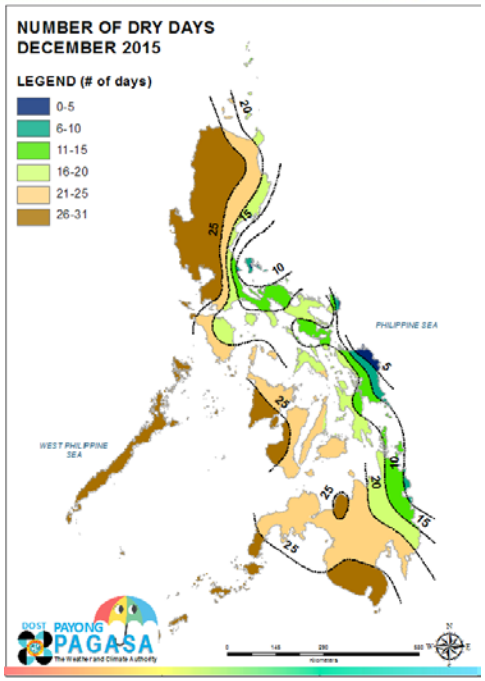

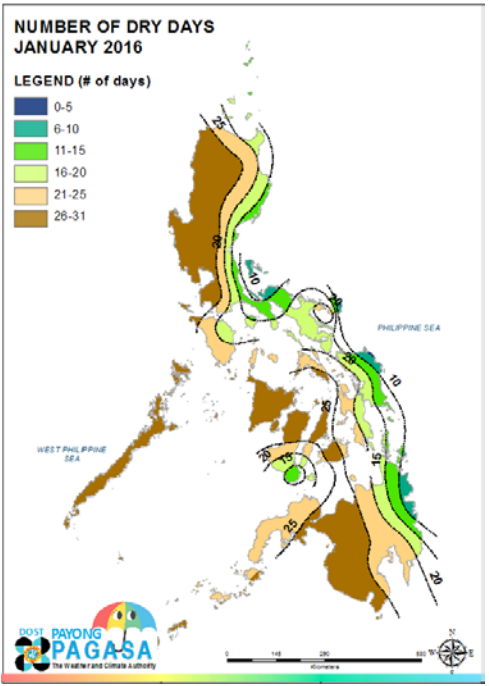

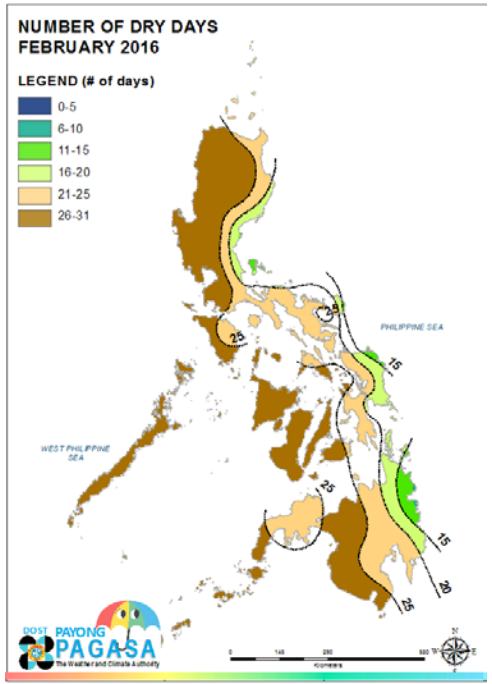

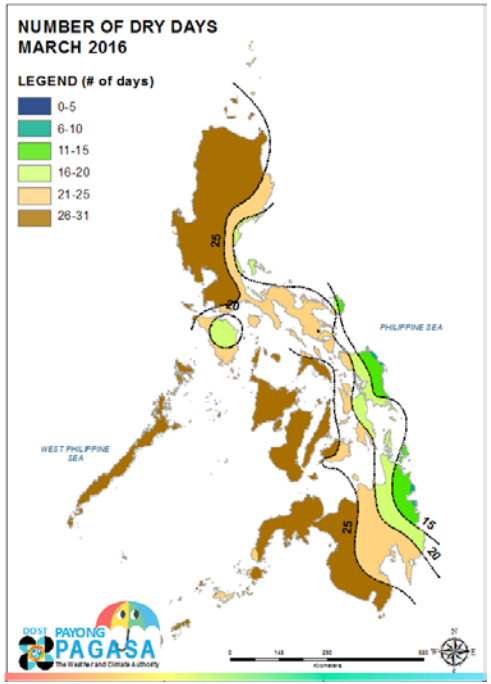

DRY DAYS FORECAST

(OCT 2015-MAR 2016)

DRY DAY – a day with less than 1 mm rainfall

Payong PAGASA

NUMBER OF DRY DAYS						
REGION	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH
CAR	26-31	21-25	26-31	26-31	26-31	26-31
R01	26-31	26-31	26-31	26-31	26-31	26-31
R02	21-25	16-20	21-25	21-25	21-25	26-31
R03	21-25	21-25	26-31	26-31	26-31	26-31
R04-A	16-20	11-15	16-20	16-20	21-25	21-25
R04-B	21-25	16-20	21-25	26-31	26-31	26-31
R05	16-20	11-15	11-15	16-20	21-25	21-25
R06	21-25	16-20	21-25	26-31	26-31	26-31
NIR	16-20	16-20	21-25	21-25	26-31	26-31
R07	16-20	16-20	21-25	21-25	26-31	26-31
R08	11-15	11-15	11-15	16-20	21-25	16-20
R09	16-20	16-20	21-25	21-25	21-25	26-31
R10	16-20	16-20	21-25	21-25	21-25	21-25
R11	21-25	16-20	21-25	21-25	21-25	21-25
R12	16-20	21-25	21-25	26-31	26-31	26-31
R13	16-20	11-15	11-15	11-15	16-20	11-15
ARMM	21-25	21-25	26-31	26-31	26-31	26-31
NCR	21-25	16-20	26-31	26-31	26-31	26-31

***DRY DAY** – a day with less than 1 mm. of rainfall*

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Payong PAGASA

Tropical Cyclone Forecast

MONTH	Number of TC
OCT 2015	1 to 3
NOV 2015	1 or 2
DEC 2015	0 or 1
JAN 2016	0 or 1
FEB 2016	0 or 1
MAR 2016	0 or 1
APR 2016	0 or 1
MAY 2016	1 or 2
JUN 2016	1 or 2

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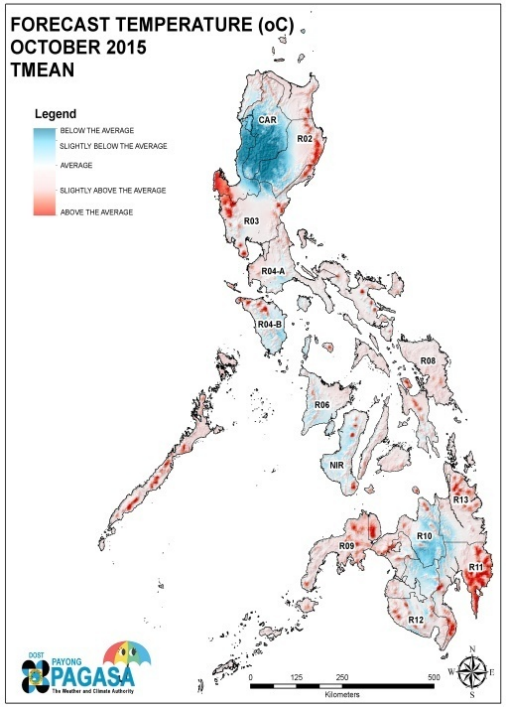
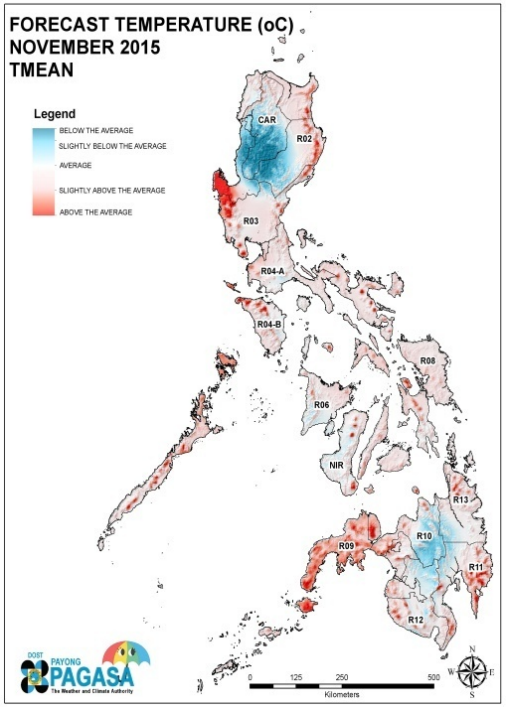
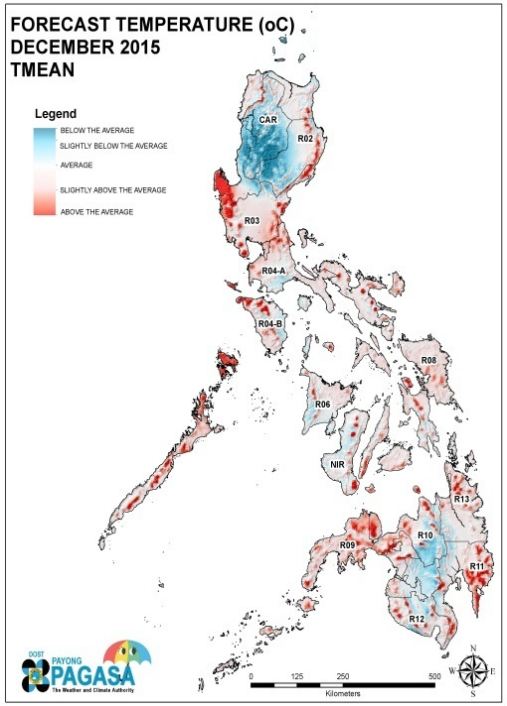
Payong PAGASA

FORECAST TEMPERATURE RANGES

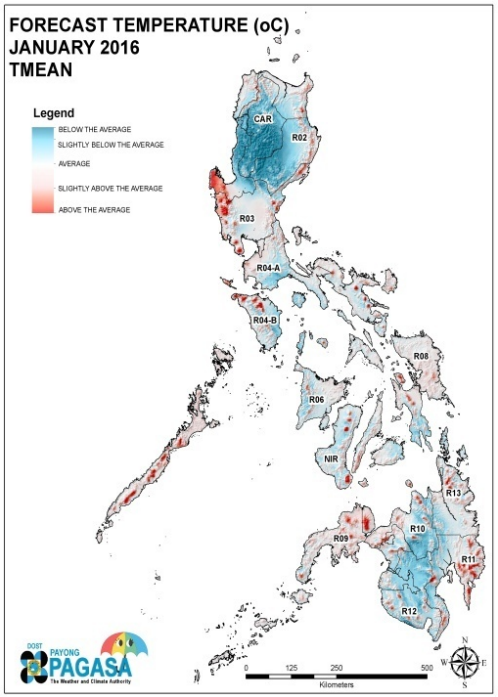


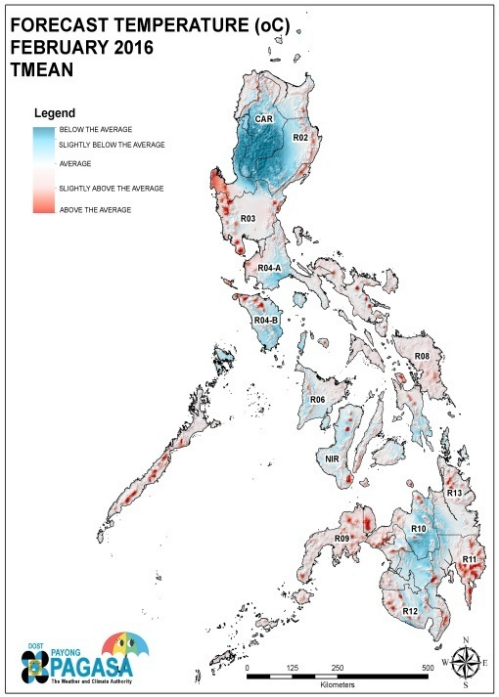


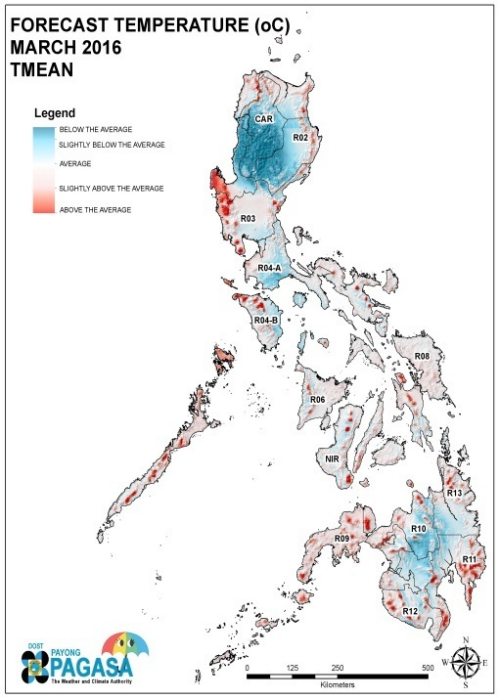


Summary	Oct-15		Nov-15		Dec-15		Jan-16		Feb-16		Mar-16	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Lowlands Luzon	20.0	37.0	20.0	35.7	14.9	36.2	18.0	35.1	17.7	37.0	19.4	39.6
Mountainous Luzon	15.0	26.6	13.4	27.3	13.1	26.9	12.5	27.4	12.5	26.4	15.4	30.3
Lowlands Visayas	22.8	35.8	22.2	35.0	22.7	34.8	21.5	34.5	22.0	35.0	22.2	36.6
Lowlands Mindanao	21.8	36.5	21.2	36.8	20.9	37.5	21.2	36.1	21.1	35.5	21.1	39.6
Mountainous Mindanao	18.7	34.2	17.0	33.5	18.4	33.3	16.3	33.2	17.0	35.3	17.0	35.6
Metro Manila	23.0	35.9	21.6	34.4	21.5	34.7	20.6	33.7	21.0	34.5	22.4	37.0

FORECAST TEMPERATURE RANGES







Summary	Oct-15		Nov-15		Dec-15		Jan-16		Feb-16		Mar-16	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Lowlands Luzon	20.0	37.0	20.0	35.7	14.9	36.2	18.0	35.1	17.7	37.0	19.4	39.6
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Mountainous Mindanao	18.7	34.2	17.0	33.5	18.4	33.3	16.3	33.2	17.0	35.3	17.0	35.6
Metro Manila	23.0	35.9	21.6	34.4	21.5	34.7	20.6	33.7	21.0	34.5	22.4	37.0

SUMMARY

- Consensus ENSO prediction indicate continuation of strong El Niño conditions during the Oct-Dec 2015 season in progress, with the event lasting into Mar-Apr-May 2016;
- Significant reduction in rainfall is predicted beginning October 2015 to April 2016 over most parts of the country;
- Slightly warmer than average temperature is expected during the forecast period;
- 2-6 tropical cyclones may develop/enter the Philippine Area of Responsibility (PAR) until December 2015;
- 4-8 tropical cyclones may develop/enter the Philippine Area of Responsibility (PAR) until June 2016;

SUMMARY

Northeast Monsoon Outlook Summary

- Gradual termination of the southwest monsoon expected during the first half of October 2015;
- Transition to northeast monsoon will follow;
- Onset of the northeast monsoon expected between the second half of October to first half of November 2015 .

- Weak northeast monsoon expected during Dec-Jan-Feb season.
- Early termination of the northeast monsoon is expected in February 2016.

SUMMARY

- Drought / Dry Spell Outlook for October 2015
  - ***19*** *provinces likely to experience dry condition;*
  - ***5*** *provinces likely to experience dry spell;*
  - ***4*** *provinces likely to experience drought*

≈ 11% of the country will likely experience DRY SPELL/DROUGHT by end of October 2015

PROVINCES LIKELY TO EXPERIENCE DRY CONDITION	
LUZON (17)	ABRA, BENGUET, IFUGAO, KALINGA, MOUNTAIN PROVINCE, ILOCOS SUR, LA UNION, BATAAN, PAMPANGA, ZAMBALES, BATANGAS, LAGUNA, RIZAL, OCCIDENTAL MINDORO, ORIENTAL MINDORO, ROMBLON, ALBAY
VISAYAS (2)	AKLAN, GUIMARAS
MINDANAO	none
PROVINCES LIKELY TO EXPERIENCE DRY SPELL	
LUZON (2)	TARLAC, CAVITE
VISAYAS (2)	ANTIQUE, SAMAR (WESTERN SAMAR)
MINDANAO (1)	SARANGANI
PROVINCES LIKELY TO EXPERIENCE DROUGHT	
LUZON (3)	ISABELA, QUEZON, CAMARINES NORTE
VISAYAS	none
MINDANAO (1)	DAVAO ORIENTAL

SUMMARY

- Drought / Dry Spell Outlook at the end of Dec. 2015
  - o ***8*** *provinces likely to experience dry condition;*
  - o ***38*** *provinces likely to experience dry spell;*
  - o ***15*** *provinces likely to experience drought*

≈ 66% of the country will likely experience DRY SPELL/DROUGHT by end of Dec. 2015

PROVINCES LIKELY TO EXPERIENCE DRY CONDITION	
LUZON (2)	APAYAO, CAGAYAN
VISAYAS (1)	BOHOL
MINDANAO (5)	BUKIDNON, LANAO DEL NORTE, DAVAO DEL SUR NORTH COTABATO, LANAO DEL SUR
PROVINCES LIKELY TO EXPERIENCE DRY SPELL	
LUZON (19)	ILOCOS NORTE, PANGASINAN, NUEVA VIZCAYA, BULACAN, NUEVA ECIJA, PAMPANGA, AURORA, METRO MANILA, BATANGAS, RIZAL, MARINDUQUE, OCCIDENTAL MINDORO, ORIENTAL MINDORO, ROMBLON, PALAWAN, CAMARINES SUR, CATANDUANES, MASBATE, SORSOGON
VISAYAS (9)	AKLAN, CAPIZ, NEGROS OCCIDENTAL, CEBU, NEGROS ORIENTAL, SIQUIJOR, BILIRAN, LEYTE, SOUTHERN LEYTE
MINDANAO (10)	ZAMBOANGA DEL NORTE, ZAMBOANGA DEL SUR, ZAMBOANGA SIBUGAY, MISAMIS OCCIDENTAL, SOUTH COTABATO, SULTAN KUDARAT, BASILAN, MAGUINDANAO, SULU, TAWI-TAWI
PROVINCES LIKELY TO EXPERIENCE DROUGHT	
LUZON (11)	ABRA, BENGUET, ILOCOS SUR, LA UNION, BATAAN, TARLAC, ZAMBALES, CAVITE, LAGUNA, QUEZON, CAMARINES NORTE
VISAYAS (3)	ANTIQUE, GUIMARAS, ILOILO
MINDANAO (1)	SARANGANI

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SUMMARY

- Drought / Dry Spell Outlook at the end of March 2016
  - o ***66*** *provinces likely to experience drought, some of which might suffer moderate to severe drought;*
  - o ***2*** *provinces likely to experience dry spell*

≈ 85% of the country will likely experience DRY SPELL/DROUGHT by end of March 2016

OVER DIFFERENT PROVINCES BY END OF MARCH 2016

PROVINCES LIKELY TO EXPERIENCE DROUGHT	
LUZON (37)	ABRA, BENGUET, IFUGAO, KALINGA, APAYAO,MOUNTAIN PROVINCE,ILOCOS NORTE,ILOCOS SUR,LA UNION, PANGASINAN, CAGAYAN,ISABELA,QUIRINO, BATAAN, BULACAN, NUEVA ECIJA,PAMPANGA,TARLAC, ZAMBALES, AURORA, METRO MANILA,BATANGAS, CAVITE, LAGUNA, RIZAL,QUEZON,MARINDUQUE, OCCIDENTAL MINDORO,ORIENTAL MINDORO, ROMBLON,PALAWAN,ALBAY,CAMARINES NORTE, CAMARINES SUR,CATANDUANES, MASBATE, SORSOGON * NUEVA VISCAYA - WILL LIKELY EXPERIENCE DROUGHT UNTIL FEB 2016
VISAYAS (15)	AKLAN,ANTIQUE,CAPIZ,GUIMARAS,ILOILO,NEGROS OCCIDENTAL,BOHOL,CEBU,NEGROS ORIENTAL,SIQUIJOR, BILIRAN,LEYTE,NORTHERN SAMAR,SAMAR (WESTERN SAMAR),SOUTHERN LEYTE
MINDANAO (14)	ZAMBOANGA DEL NORTE, ZAMBOANGA DEL SUR, ZAMBOANGA SIBUGAY, LANAO DEL NORTE,MISAMIS OCCIDENTAL,SOUTH COTABATO,NORTH COTABATO, SARANGANI,SULTAN KUDARAT,BASILAN, MAGUINDANAO,LANAO DEL SUR, SULU, TAWI-TAWI

PROVINCES LIKELY TO EXPERIENCE DRY SPELL	
LUZON (1)	BATANES
VISAYAS	NONE
MINDANAO (1)	CAMIGUIN

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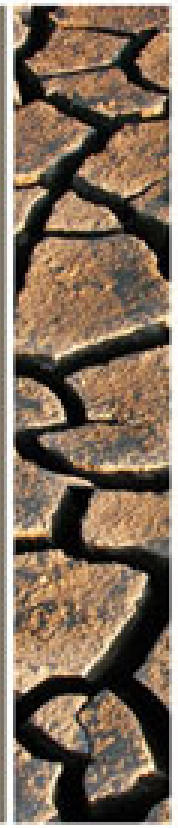
PAGASA will continue to closely monitor the situation and updates/advisories shall be issued as appropriate.



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Typhoon	**Flood**
+632-9271541	+632-9266970
+632-9271335	+632-9204052
Climate	**IEC**
+632-4351675	+632-4342696
+632-4340955	+632-9279308

Press Statement
Quezon City, 7 October 2015

Termination of the Southwest Monsoon

Recent climate analysis showed that a significant weakening of the Southwest Monsoon wind has been observed over the last few days. Moreover, the strengthening of the high pressure systems over the Asian continent has led to the gradual changing of the season.

With these developments , the Southwest Monsoon or known locally as "Habagat" is now officially over. The climate of the Philippines is on the process of transition and will be expecting the gradual beginning of the northeast monsoon season in the coming days with a peculiar shift in the direction of the winds to the northeast.

Signed:
VICENTE B. MALANO Ph.D.
Acting Administrator0

PAGASA
The Weather and Climate Authority

REPUBLIC OF THE PHILIPPINES
Department of Science and Technology
Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
Science Garden, Agham Road, Diliman, Quezon City 1100

PRESS STATEMENT
Quezon City, 15 October 2015

ONSET OF THE NORTHEAST MONSOON

The gradual strengthening of the high pressure system over Siberia has led to the prevalence of observed northeast winds over northern Luzon. Strong to gale force northeasterly winds were also noted over the seaboard of Northern Luzon for the past several days.

With these developments, the northeast wind flow is expected to further intensify and become dominant over the rest of the country, bringing cold and dry air. These meteorological conditions indicate that the northeast monsoon season has started.

Meanwhile, due to the current strong El Niño in the central and eastern equatorial Pacific (CEEP), seasonal rainfall and temperature in the country may be significantly affected, becoming drier and warmer. Surges of cold weather may still be expected.

VICENTE B. MALANO Ph.D.
Acting Administrator

Payong PAGASA

REPUBLIC OF THE PHILIPPINES
Department of Science and Technology
Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
PAGASA Science Garden, Agham Road, Diliman, Quezon City 1100

Press Statement
Quezon City, 23 October 2015

THICK SMAZE OBSERVED OVER SOUTHERN PHILIPPINES

Recent observations showed that thick smaze (smoke-haze) were observed in southern Philippines particularly in Mindanao and some Visayan islands resulting to some inconveniences ranging from reduced visibility to cancelled flights. Wind analysis using the Haze Information Portal of the ASEAN Specialized Meteorological Center based in Singapore suggests that equatorial winds enhanced by Typhoon Lando has reached the Philippines. This may have caused the smaze coming from peatland forest fires in Indonesia to drift over the Philippines specially over the Mindanao and Palawan-Visayas islands. Thick smaze began to manifest late September particularly during occurrence of tropical cyclones in north western Pacific areas.

During a strong El Nino, countries in western pacific such as Indonesia, Malaysia, Brunei, Singapore, the Philippines and others experienced hot and dry climate, resulting to forest and peatland fires similar to the 1997-98 El Nino.

The public is advised to take appropriate precautionary actions to avoid hazards brought about by this thick smaze. Indonesian and some ASEAN authorities are cooperating and helping to control the peatland forest fires situation in Indonesia.

PAGASA will continue to monitor this phenomenon and updates will be issued as necessary.

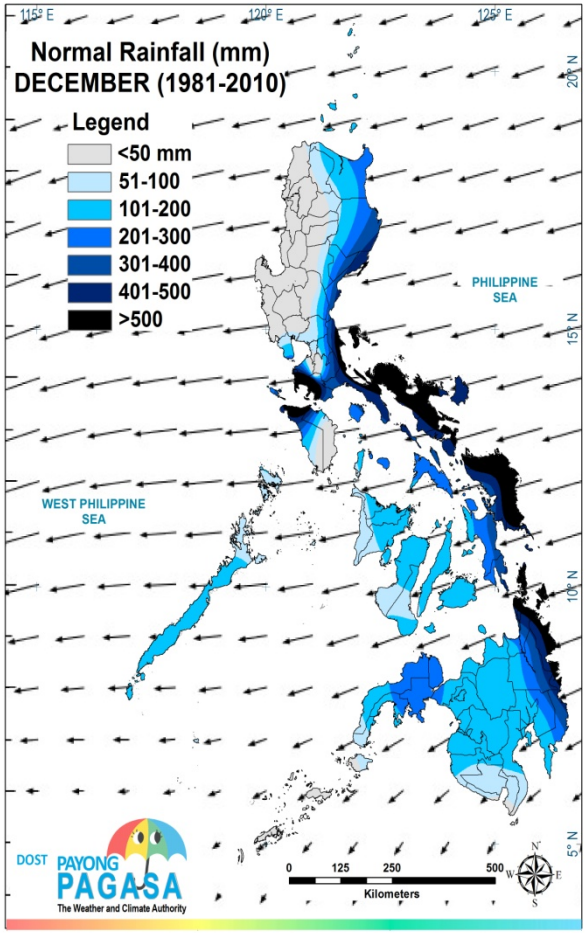
VICENTE B. MALANO Ph.D.
Acting Administrator

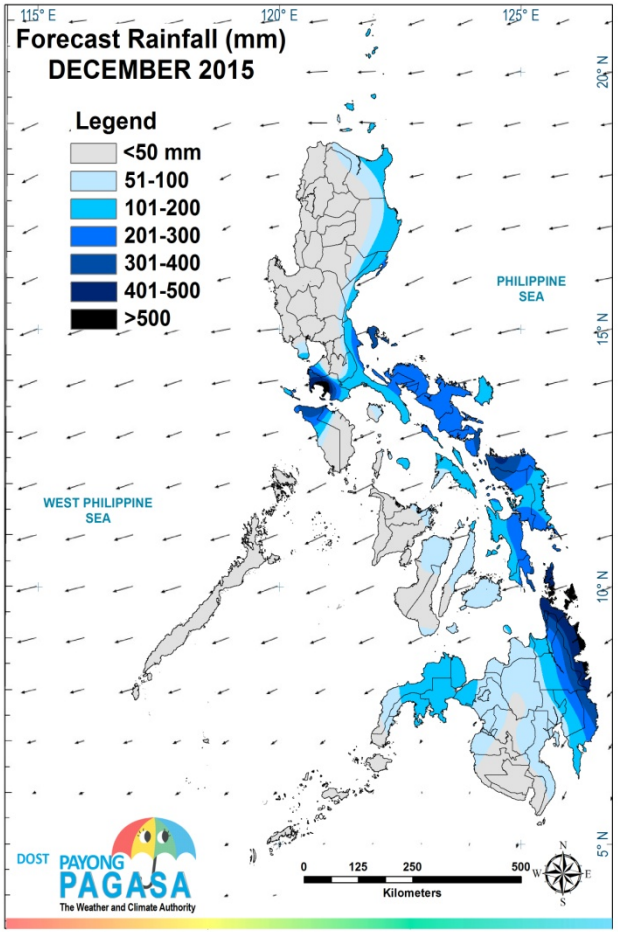
Monthly Rainfall Forecast

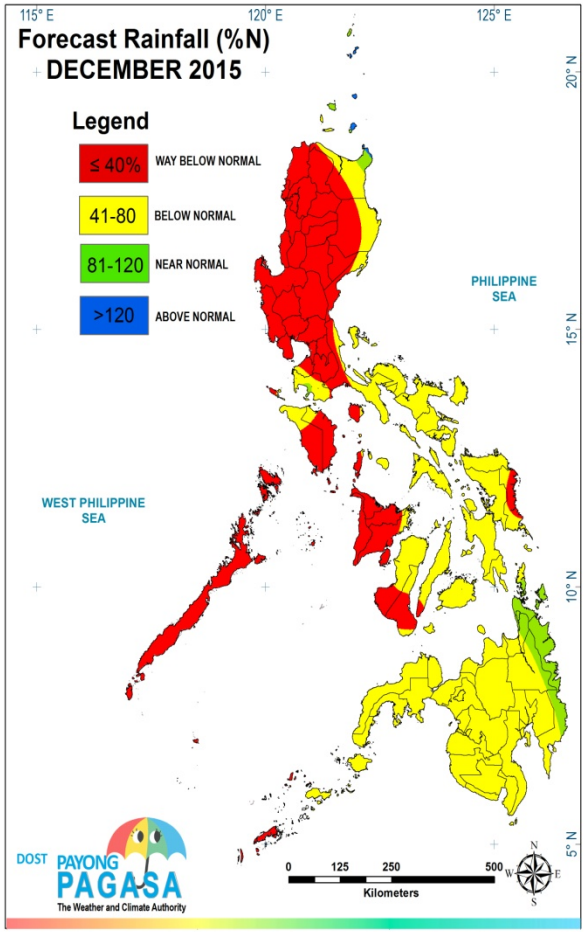
Normal (mm)
(1981-2010)

December 2015
Forecast (mm)

% Normal







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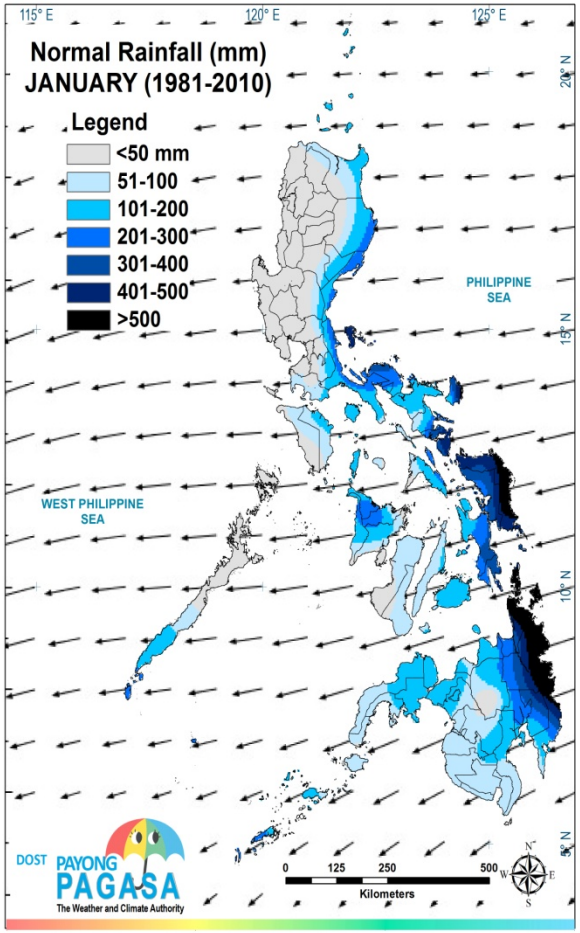
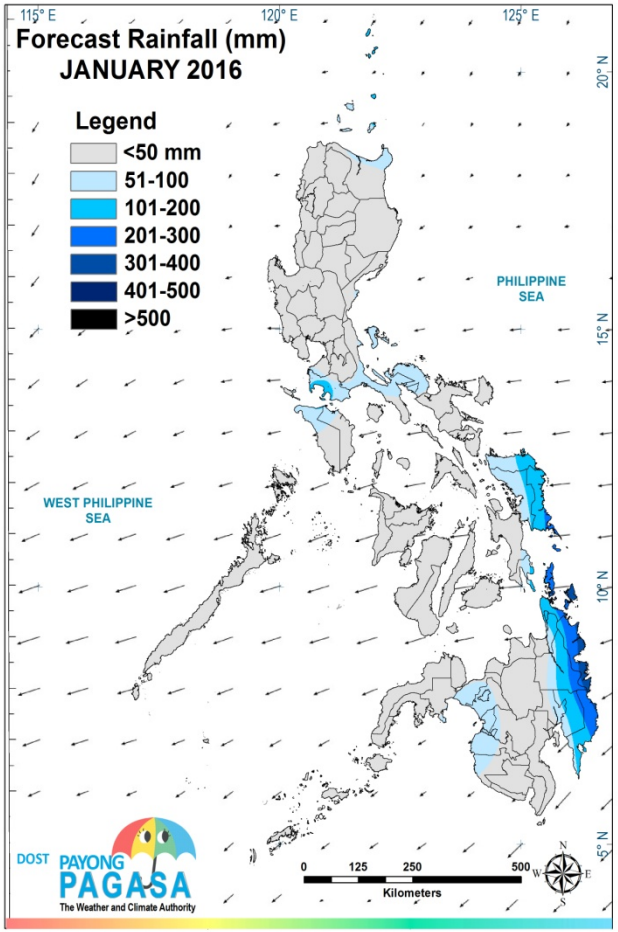
Monthly Rainfall Forecast

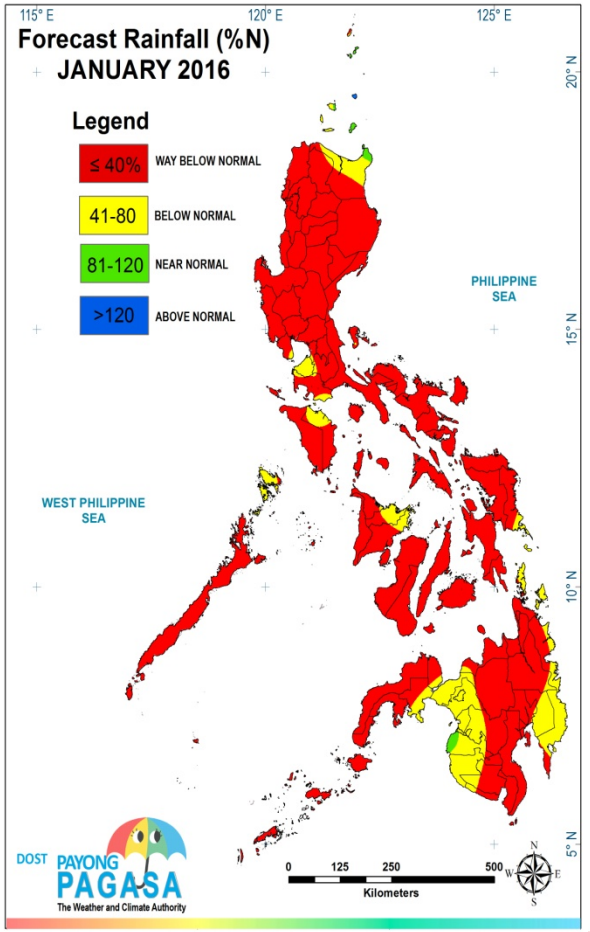
Normal (mm)
(1981-2010)

January 2016
Forecast (mm)

% Normal







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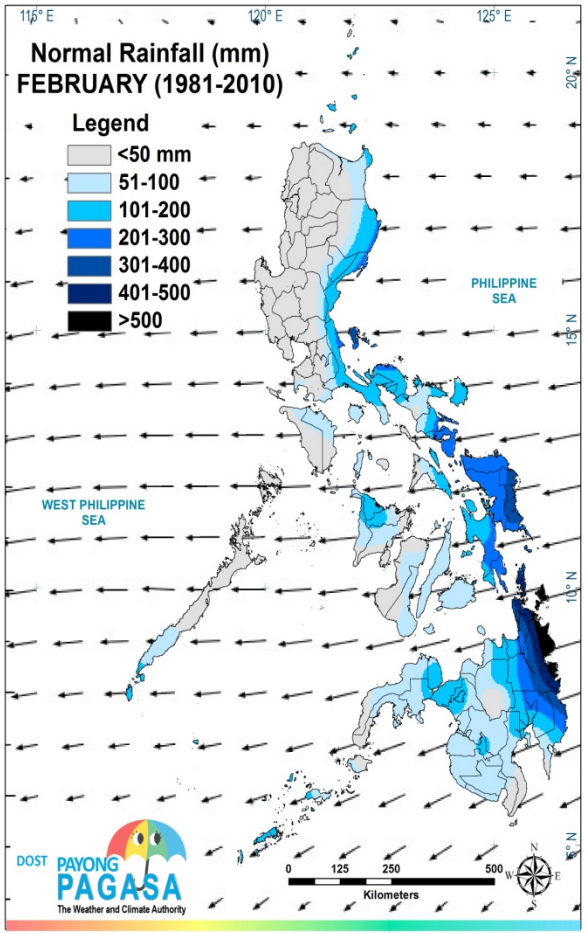
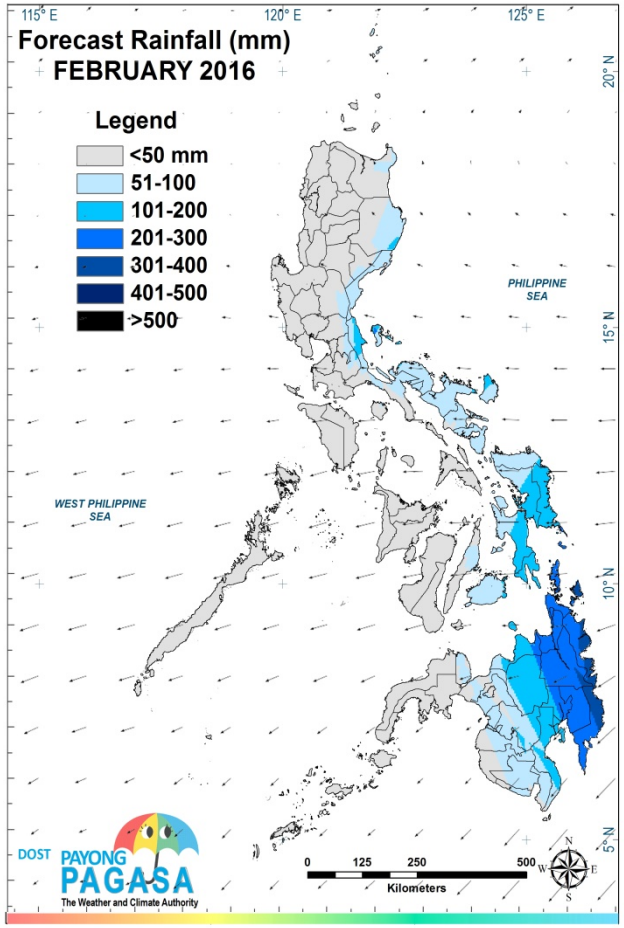
Monthly Rainfall Forecast

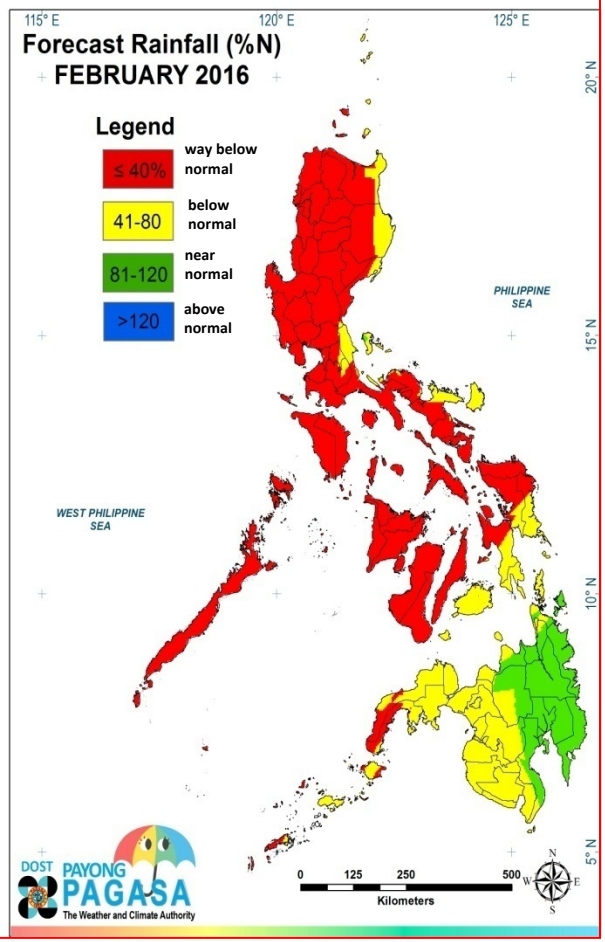
Normal (mm)
(1981-2010)

February 2016
Forecast (mm)

% Normal







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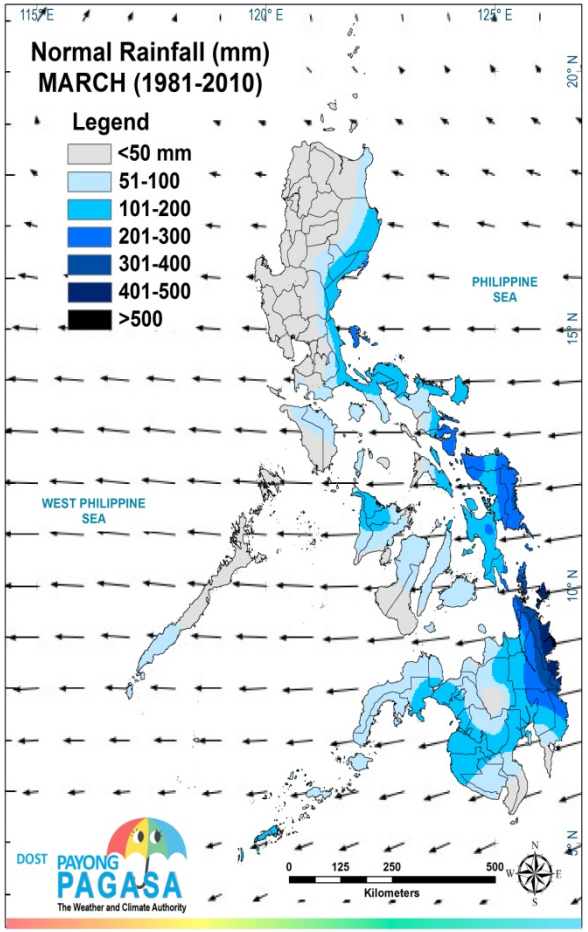
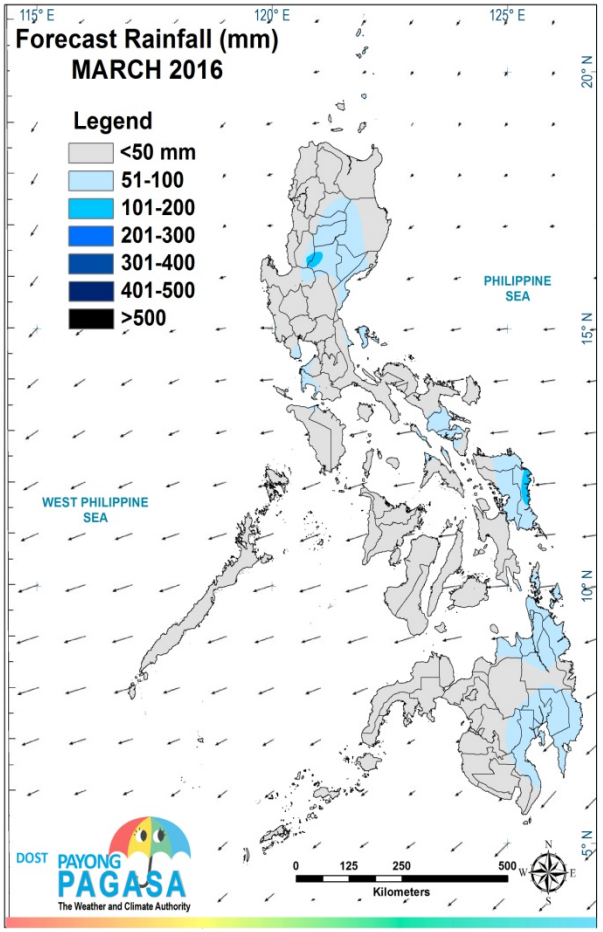
Monthly Rainfall Forecast

Normal (mm)
(1981-2010)

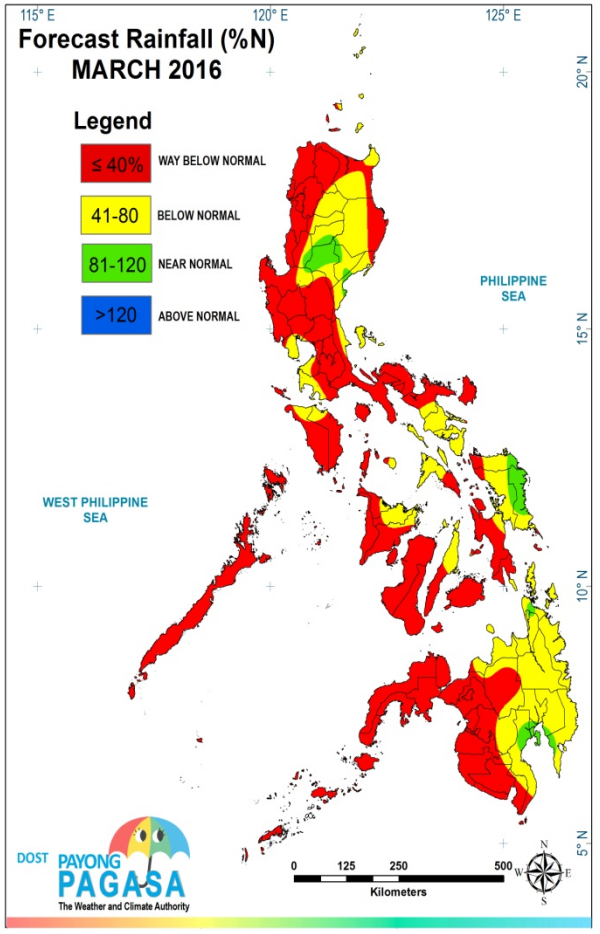


March 2016

Forecast (mm)



% Normal



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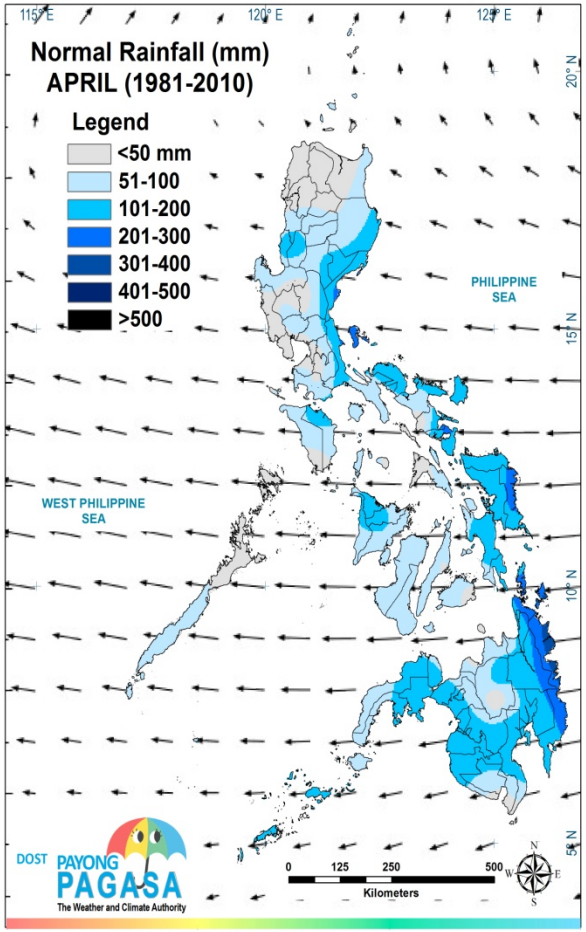
Monthly Rainfall Forecast

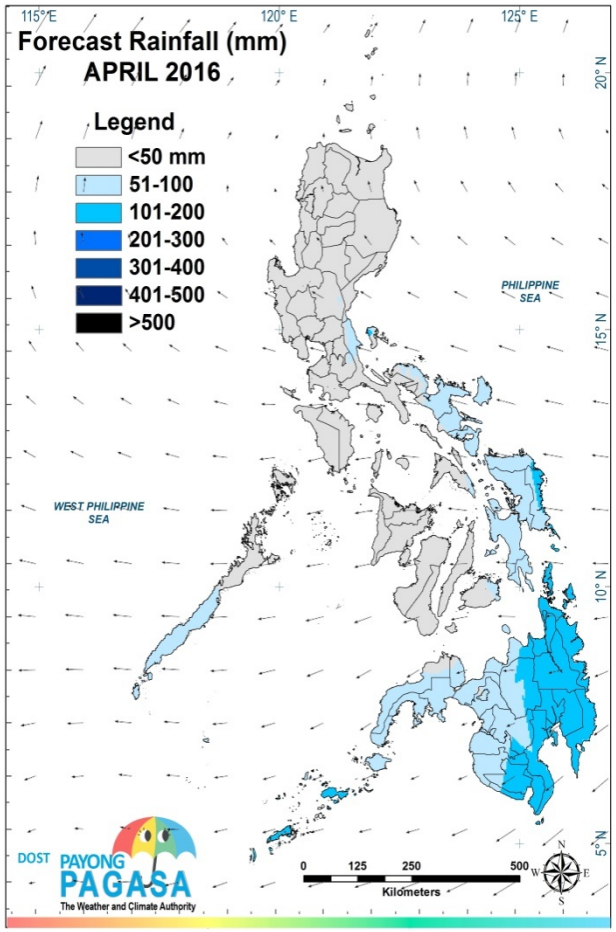
Normal (mm)
(1981-2010)

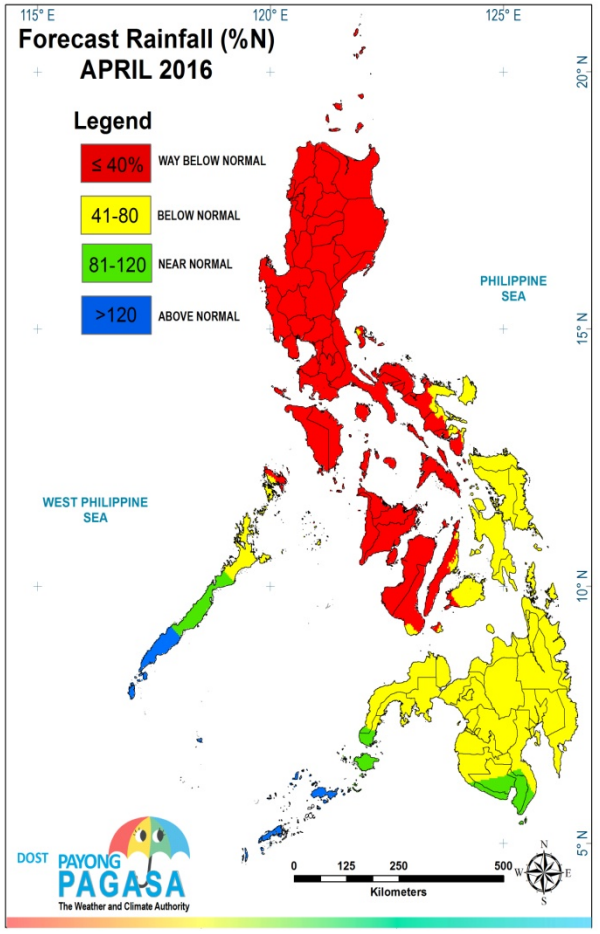
April 2016

Forecast (mm)

% Normal







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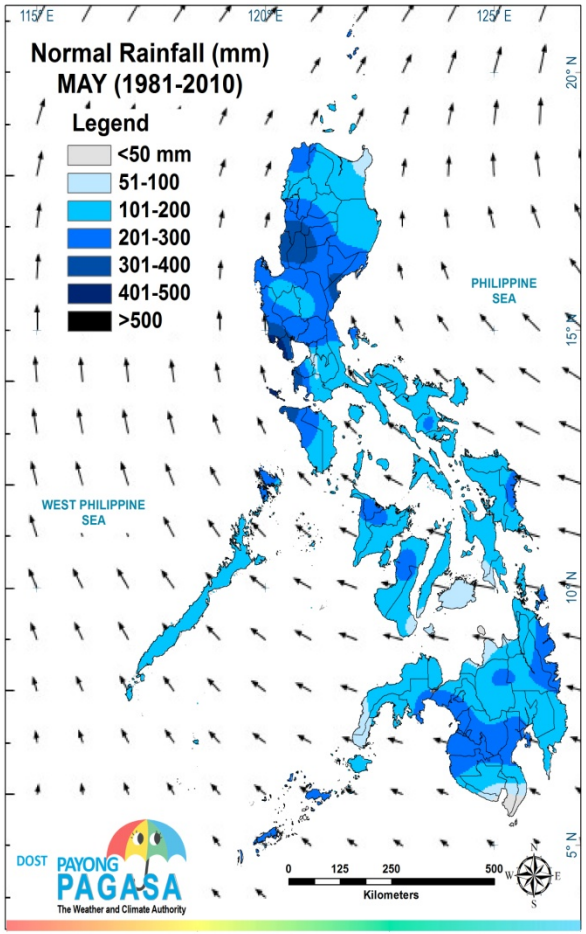
Monthly Rainfall Forecast

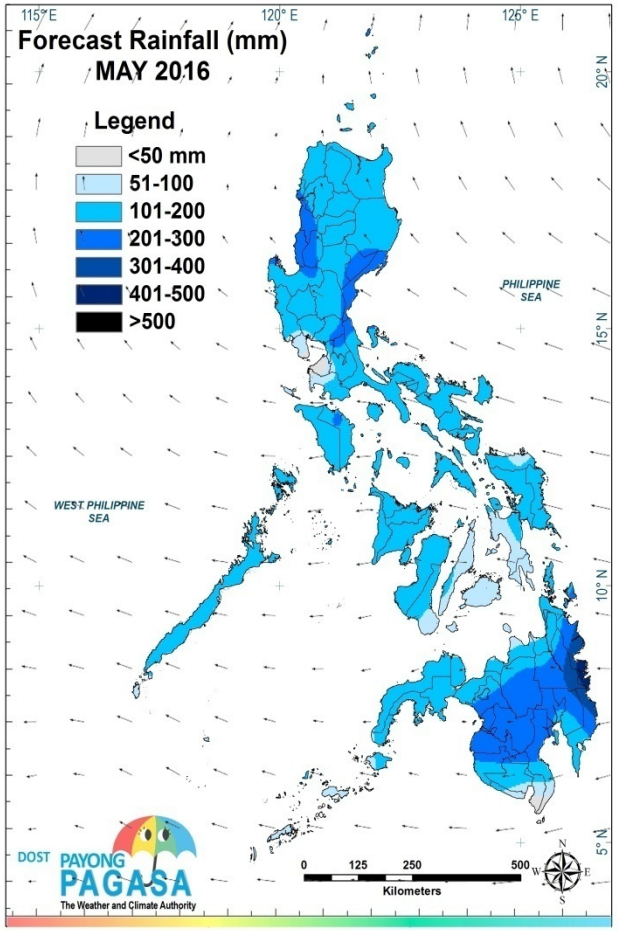
Normal (mm) (1981-2010)

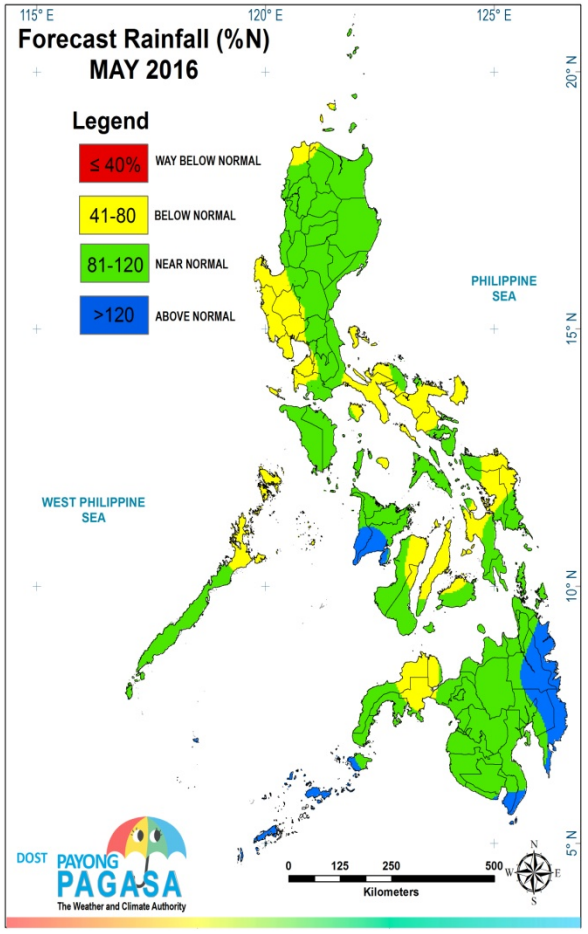
May 2016

Forecast (mm)

% Normal







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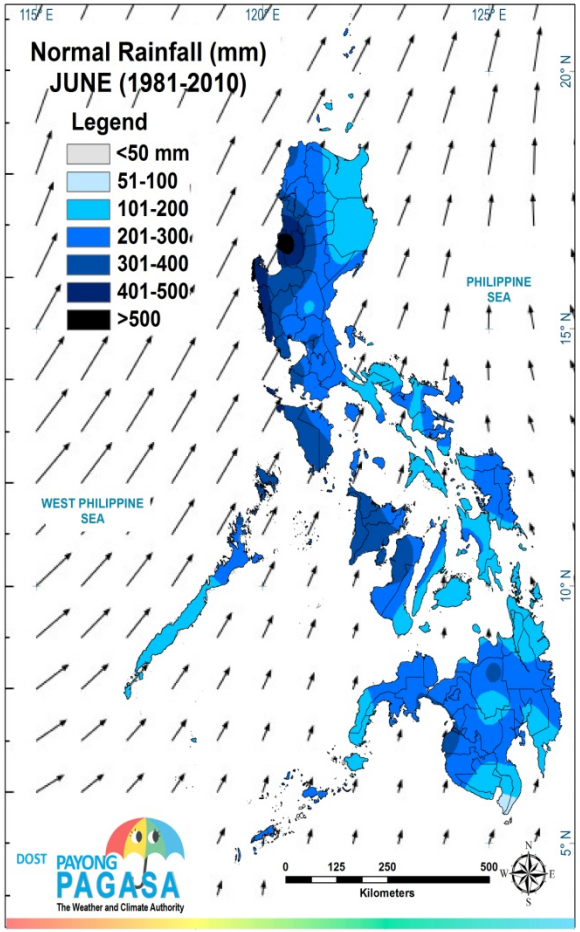
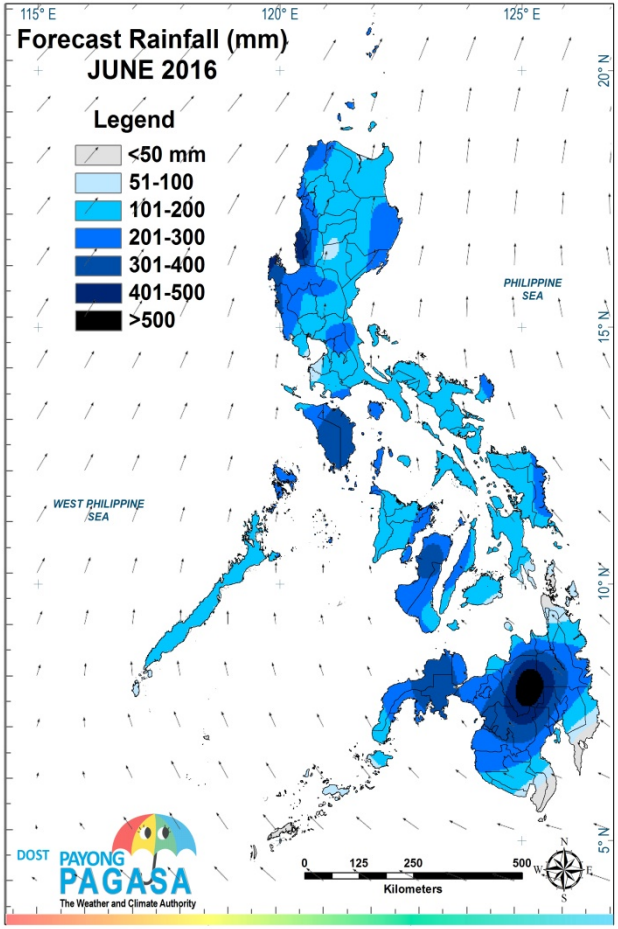
Monthly Rainfall Forecast

Normal (mm)
(1981-2010)

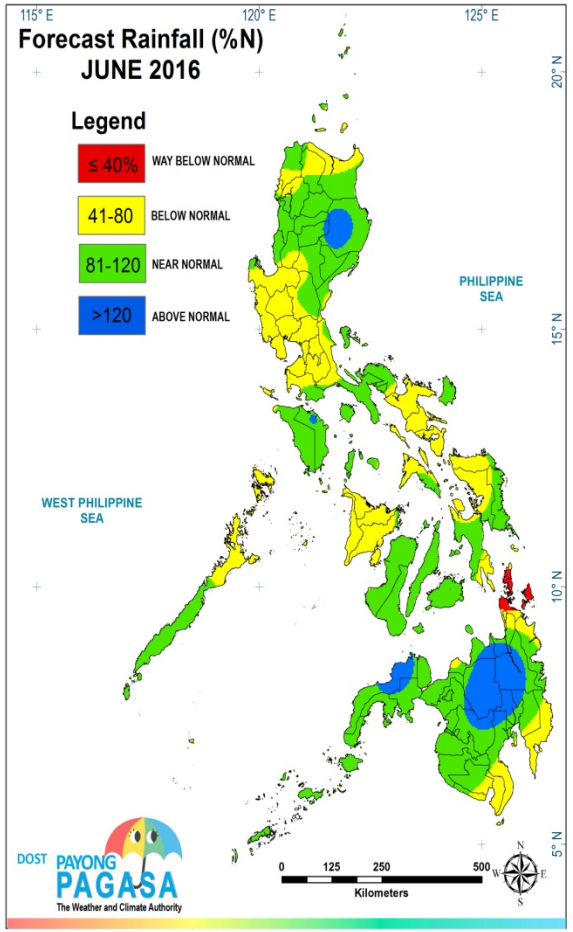


June 2016

Forecast (mm)



% Normal



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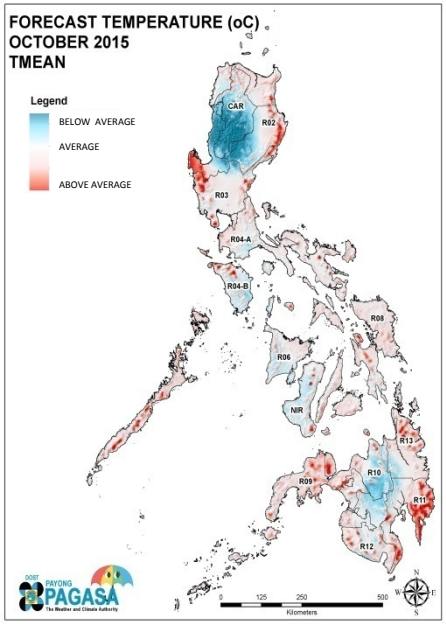
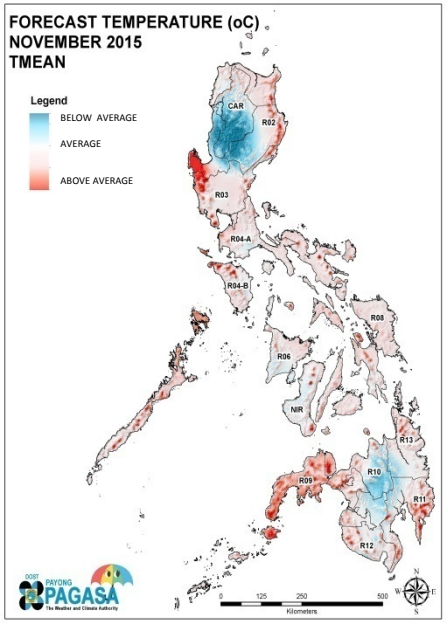
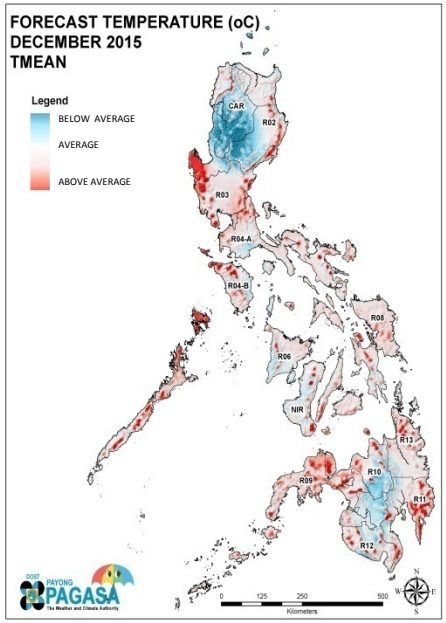
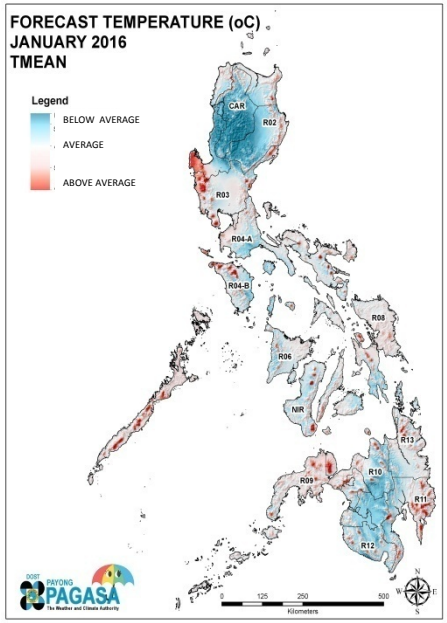
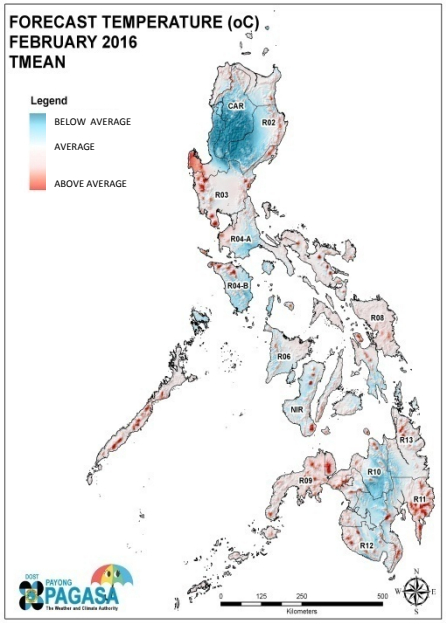
TEMPERATURE FORECAST
OCT. 2015–APR. 2016

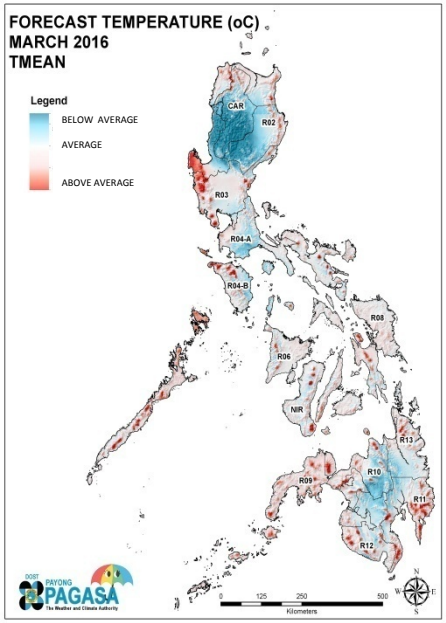


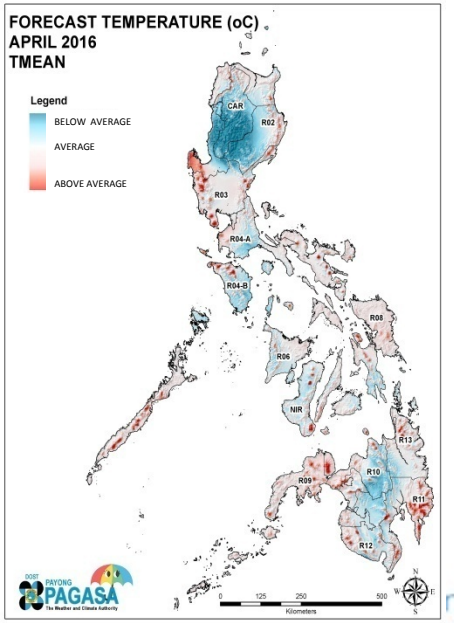












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HISTORICAL EL NIÑO EPISODES

El Niño Episodes	Highest ONI Value	CATEGORY
JJA 1951 – DJF 1951/52	1.2	Moderate
DJF 1952/53 – JFM 1954	0.8	Weak
MAM 1957 – JJA 1958	1.8	Strong
OND 1958 – FMA 1959	0.6	Weak
MJJ 1963 – JFM 1964	1.4	Moderate
AMJ 1965 – MAM 1966	1.9	Strong
JAS 1968 – DJF 1969/70	1.1	Moderate
AMJ 1972 – FMA 1973	2.1	Strong
ASO 1976 - JFM 1977	0.8	Weak
ASO 1977 – JFM 1978	0.8	Weak
AMJ 1982 – MJJ 1983	2.2	Strong
JAS 1986 – JFM 1988	1.6	Strong
AMJ 1991 – MJJ 1992	1.6	Strong
ASO 1994 – FMA 1995	1.2	Moderate
AMJ 1997 – MAM 1998	2.4	Strong
AMJ 2002 – JFM 2003	1.3	Moderate
JJA 2004 – DJF 2004/05	0.7	Weak
ASO 2006 – DJF 2006/07	1	Moderate
JJA 2009 – MAM 2010	1.6	Strong

ONI Value	CATEGORY
0.5 - 0.9	Weak
1.0-1.4	Moderate
> or = 1.5	Strong

El Niño Episodes	Highest ONI Value	CATEGORY
AMJ 1997 – MAM 1998	2.4	Strong
AMJ 1982 – MJJ 1983	2.2	Strong
AMJ 1972 – FMA 1973	2.1	Strong
AMJ 1965 – MAM 1966	1.9	Strong
MAM 1957 – JJA 1958	1.8	Strong
JAS 1986 – JFM 1988	1.6	Strong
AMJ 1991 – MJJ 1992	1.6	Strong
JJA 2009 – MAM 2010	1.6	Strong
MJJ 1963 – JFM 1964	1.4	Moderate
AMJ 2002 – JFM 2003	1.3	Moderate
JJA 1951 – DJF 1951/52	1.2	Moderate
ASO 1994 – FMA 1995	1.2	Moderate
JAS 1968 – DJF 1969/70	1.1	Moderate
ASO 2006 – DJF 2006/07	1.0	Moderate
DJF 1952/53 – JFM 1954	0.8	Weak
ASO 1976 - JFM 1977	0.8	Weak
ASO 1977 – JFM 1978	0.8	Weak
JJA 2004 – DJF 2004/05	0.7	Weak
OND 1958 – FMA 1959	0.6	Weak

DOST PAGASA
The Weather and Climate Authority

HISTORICAL COLD AND WARM EPISODES (ERSST v4)

Year	DJF	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS	ASO	SON	OND	NDJ
1950	-1.4	-1.2	-1.1	-1.2	-1.1	-0.9	-0.6	-0.6	-0.5	-0.6	-0.7	-0.8
1951	-0.8	-0.6	-0.2	0.2	0.2	0.4	0.5	0.7	0.8	0.9	0.7	0.6
1952	0.5	0.4	0.4	0.4	0.4	0.2	0	0.1	0.2	0.2	0.2	0.3
1953	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7
1954	0.7	0.4	0	-0.4	-0.5	-0.5	-0.5	-0.7	-0.7	-0.6	-0.5	-0.5
1955	-0.6	-0.6	-0.7	-0.7	-0.7	-0.6	-0.6	-0.6	-1	-1.4	-1.6	-1.4
1956	-0.9	-0.6	-0.6	-0.5	-0.5	-0.4	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4
1957	-0.3	0	0.3	0.6	0.7	0.9	1	1.2	1.1	1.2	1.3	1.6
1958	1.7	1.5	1.2	0.8	0.7	0.6	0.5	0.4	0.4	0.5	0.6	0.6
1959	0.6	0.5	0.4	0.2	0.1	-0.2	-0.3	-0.3	-0.1	-0.1	-0.1	-0.1
1960	-0.1	-0.2	-0.1	0	-0.1	-0.2	0	0.1	0.2	0.1	0	0
1961	0	0	-0.1	0	0.1	0.2	0.1	-0.1	-0.3	-0.3	-0.2	-0.2
1962	-0.2	-0.2	-0.2	-0.3	-0.3	-0.2	-0.1	-0.2	-0.2	-0.3	-0.3	-0.4
1963	-0.4	-0.2	0.1	0.2	0.2	0.4	0.7	1	1.1	1.2	1.2	1.1
1964	1	0.6	0.1	-0.3	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8
1965	-0.5	-0.3	-0.1	0.1	0.4	0.7	1	1.3	1.6	1.7	1.8	1.5
1966	1.3	1	0.9	0.6	0.3	0.2	0.2	0.1	0	-0.1	-0.1	-0.3
1967	-0.4	-0.5	-0.5	-0.5	-0.2	0	0	-0.2	-0.3	-0.4	-0.4	-0.5
1968	-0.7	-0.8	-0.7	-0.5	-0.1	0.2	0.5	0.4	0.3	0.4	0.6	0.8
1969	0.9	1	0.9	0.7	0.6	0.5	0.4	0.5	0.8	0.8	0.8	0.7
1970	0.6	0.4	0.4	0.3	0.1	-0.3	-0.6	-0.8	-0.8	-0.8	-0.9	-1.2
1971	-1.3	-1.3	-1.1	-0.9	-0.8	-0.7	-0.8	-0.7	-0.8	-0.8	-0.9	-0.8
1972	-0.7	-0.4	0	0.3	0.6	0.8	1.1	1.3	1.5	1.8	2	1.9
1973	1.7	1.2	0.6	0	-0.4	-0.8	-1	-1.2	-1.4	-1.7	-1.9	-1.9
1974	-1.7	-1.5	-1.2	-1	-0.9	-0.8	-0.6	-0.4	-0.4	-0.6	-0.7	-0.6
1975	-0.5	-0.5	-0.6	-0.6	-0.7	-0.8	-1	-1.1	-1.3	-1.4	-1.5	-1.6
1976	-1.5	-1.1	-0.7	-0.4	-0.3	-0.1	0.1	0.3	0.5	0.7	0.8	0.8
1977	0.7	0.6	0.4	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.8	0.8
1978	0.7	0.4	0.1	-0.2	-0.3	-0.3	-0.4	-0.4	-0.4	-0.3	-0.1	0
1979	0	0.1	0.2	0.3	0.3	0.1	0.1	0.2	0.3	0.5	0.5	0.6
1980	0.6	0.5	0.3	0.4	0.5	0.5	0.3	0.2	0	0.1	0.1	0

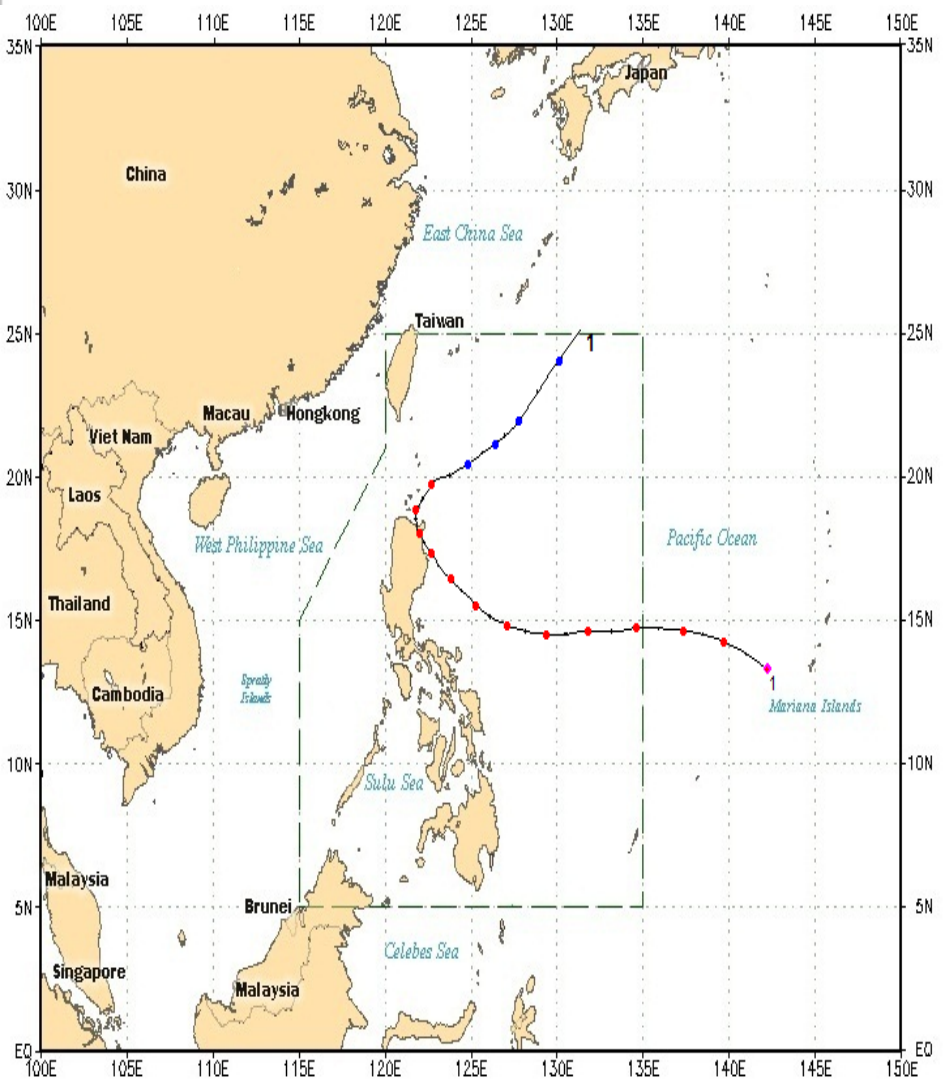
Note:
Red- El Niño
Blue-La Niña
Black-Neutral

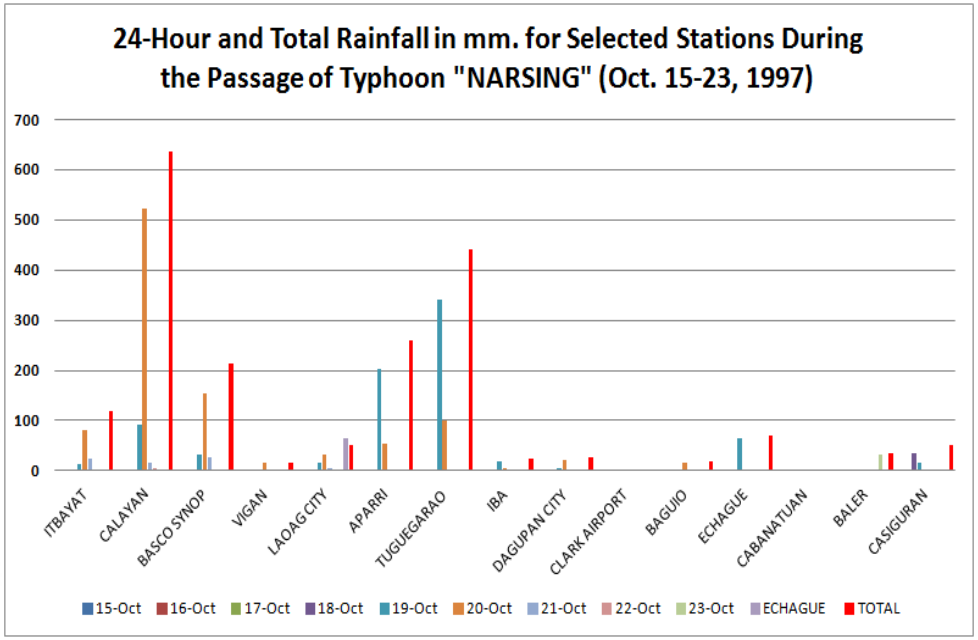
HISTORICAL COLD AND WARM EPISODES (ERSST v4)

Year	DJF	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS	ASO	SON	OND	NDJ
1981	-0.2	-0.4	-0.4	-0.3	-0.2	-0.3	-0.3	-0.3	-0.2	-0.1	-0.1	0
1982	0	0.1	0.2	0.5	0.6	0.7	0.8	1	1.5	1.9	2.1	2.1
1983	2.1	1.8	1.5	1.2	1	0.7	0.3	0	-0.3	-0.6	-0.8	-0.8
1984	-0.5	-0.3	-0.3	-0.4	-0.4	-0.4	-0.3	-0.2	-0.3	-0.6	-0.9	-1.1
1985	-0.9	-0.7	-0.7	-0.7	-0.7	-0.6	-0.4	-0.4	-0.4	-0.3	-0.2	-0.3
1986	-0.4	-0.4	-0.3	-0.2	-0.1	0	0.2	0.4	0.7	0.9	1	1.1
1987	1.1	1.2	1.1	1	0.9	1.1	1.4	1.6	1.6	1.4	1.2	1.1
1988	0.8	0.5	0.1	-0.3	-0.8	-1.2	-1.2	-1.1	-1.2	-1.4	-1.7	-1.8
1989	-1.6	-1.4	-1.1	-0.9	-0.6	-0.4	-0.3	-0.3	-0.3	-0.3	-0.2	-0.1
1990	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.4
1991	0.4	0.3	0.2	0.2	0.4	0.6	0.7	0.7	0.7	0.8	1.2	1.4
1992	1.6	1.5	1.4	1.2	1	0.8	0.5	0.2	0	-0.1	-0.1	0
1993	0.2	0.3	0.5	0.7	0.8	0.6	0.3	0.2	0.2	0.2	0.1	0.1
1994	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.6	0.9	1
1995	0.9	0.7	0.5	0.3	0.2	0	-0.2	-0.5	-0.7	-0.9	-1	-0.9
1996	-0.9	-0.7	-0.6	-0.4	-0.2	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4	-0.5
1997	-0.5	-0.4	-0.2	0.1	0.6	1	1.4	1.7	2	2.2	2.3	2.3
1998	2.1	1.8	1.4	1	0.5	-0.1	-0.7	-1	-1.2	-1.2	-1.3	-1.4
1999	-1.4	-1.2	-1	-0.9	-0.9	-1	-1	-1	-1.1	-1.2	-1.4	-1.6
2000	-1.6	-1.4	-1.1	-0.9	-0.7	-0.7	-0.6	-0.5	-0.6	-0.7	-0.8	-0.8
2001	-0.7	-0.6	-0.5	-0.3	-0.2	-0.1	0	-0.1	-0.1	-0.2	-0.3	-0.3
2002	-0.2	-0.1	0.1	0.2	0.4	0.7	0.8	0.9	1	1.2	1.3	1.1
2003	0.9	0.6	0.4	0	-0.2	-0.1	0.1	0.2	0.3	0.4	0.4	0.4
2004	0.3	0.2	0.1	0.1	0.2	0.3	0.5	0.7	0.7	0.7	0.7	0.7
2005	0.6	0.6	0.5	0.5	0.4	0.2	0.1	0	0	-0.1	-0.4	-0.7
2006	-0.7	-0.6	-0.4	-0.2	0	0.1	0.2	0.3	0.5	0.8	0.9	1
2007	0.7	0.3	0	-0.1	-0.2	-0.2	-0.3	-0.6	-0.8	-1.1	-1.2	-1.3
2008	-1.4	-1.3	-1.1	-0.9	-0.7	-0.5	-0.3	-0.2	-0.2	-0.3	-0.5	-0.7
2009	-0.8	-0.7	-0.4	-0.1	0.2	0.4	0.5	0.6	0.7	1	1.2	1.3
2010	1.3	1.1	0.8	0.5	0	-0.4	-0.8	-1.1	-1.3	-1.4	-1.3	-1.4
2011	-1.3	-1.1	-0.8	-0.6	-0.3	-0.2	-0.3	-0.5	-0.7	-0.9	-0.9	-0.8
2012	-0.7	-0.6	-0.5	-0.4	-0.3	-0.1	0.1	0.3	0.4	0.4	0.2	-0.2
2013	-0.4	-0.5	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3
2014	-0.5	-0.6	-0.4	-0.2	0	0	0	0	0.2	0.4	0.6	0.6
2015	0.5	0.4	0.5	0.7	0.9	1	1.2	1.5				

Note:
Red- El Niño
Blue-La Niña
Black-Neutral

Track of Typhoon "NARSING" (Oct. 15-23, 1997)





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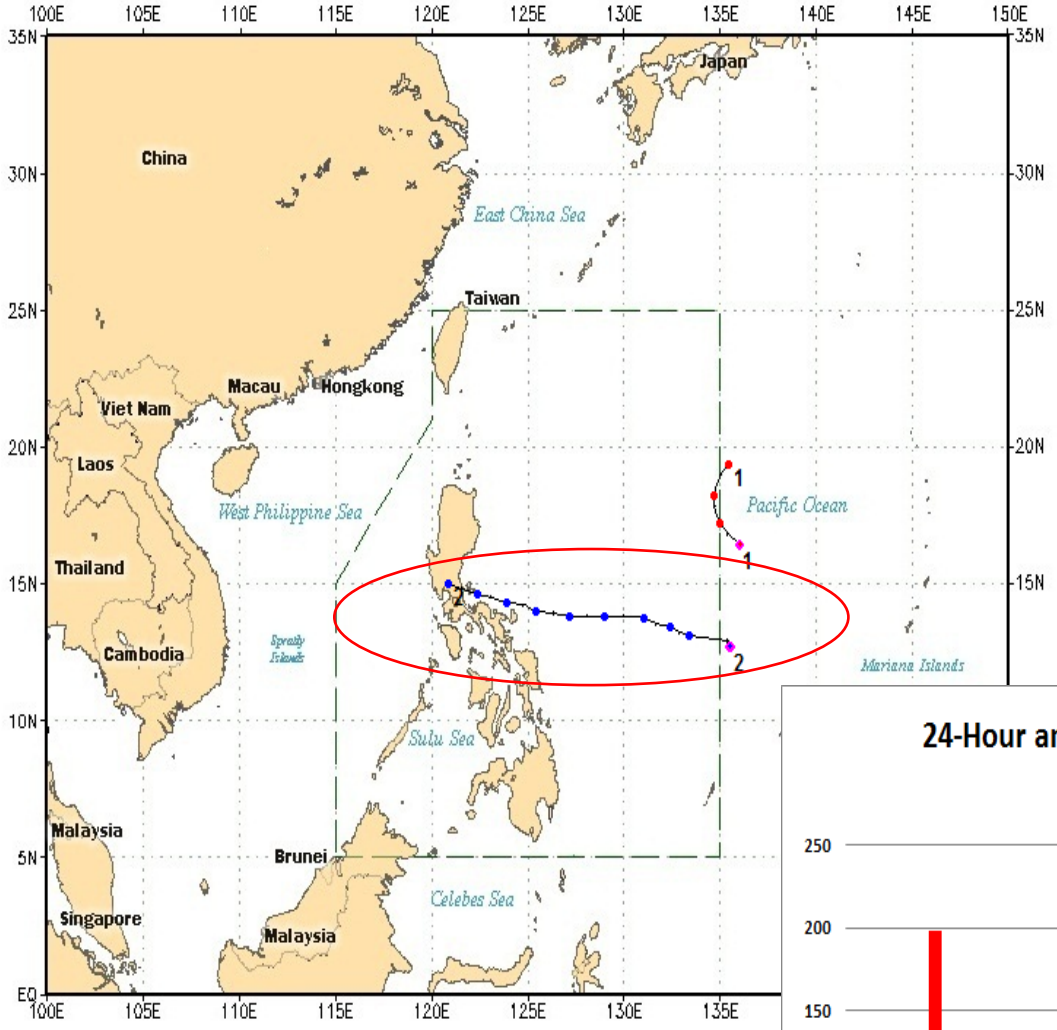
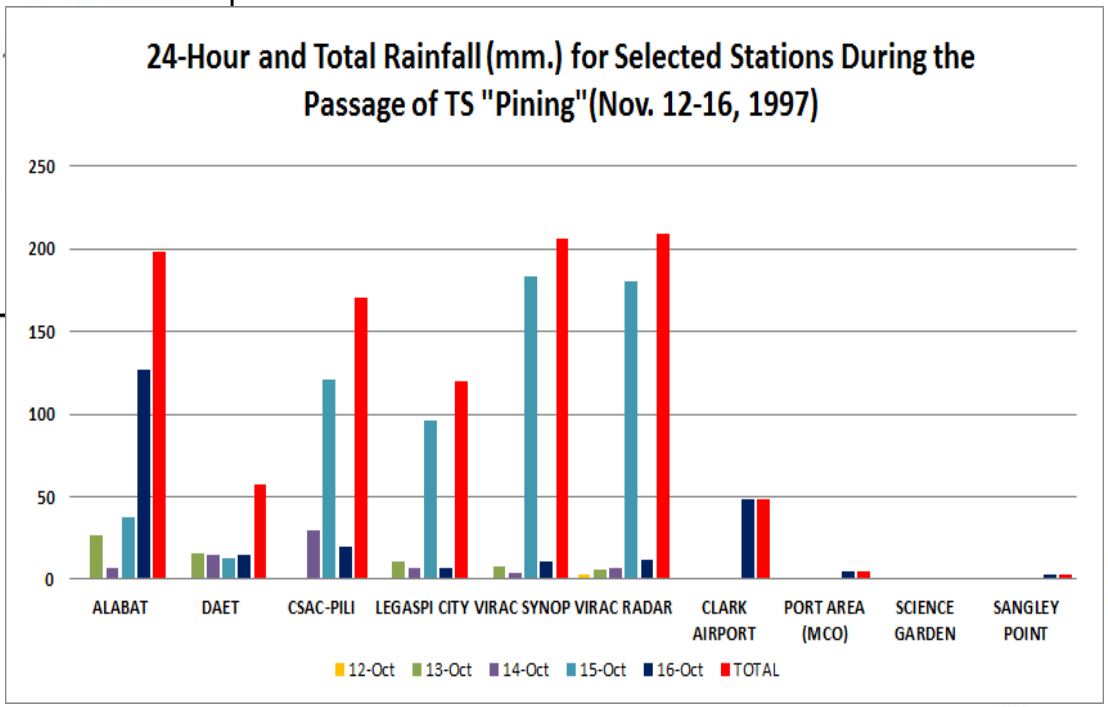


TROPICAL CYCLONE GUIDANCE SYSTEM
Statistical Investigation

Region: Entire Archipelago
0°N, 110°E - 30°N, 150°E
TC Intensity: TY / TS / TD
Year Range: 1 year/s
1997
Month Range: 1 month/s
Nov
Day Range: 31 day/s
whole month
Result : 2 TC tracks drawn

TY OPENG -1997-110406 to 110518
TS PINING -1997-111200 to 111612



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PROVINCE	OCTOBER			NOVEMBER			DECEMBER		
REGION I									
ILOCOS NORTE	24.5	199.3	133.3	1.0	71.5	26.9	1.0	38.2	9.1
ILOCOS SUR	55.5	207.3	129.6	1.0	81.7	25.8	1.0	0.8	0.1
LA UNION	168.5	253.4	225.0	1.0	15.4	2.5	1.0	2.4	0.1
PANGASINAN	90.2	215.7	162.1	1.0	47.3	12.5	1.0	12.8	2.8

NORMAL RAINFALL (1981 - 2010) in millimeters for SYNOPTIC & AGROMET STATIONS

STN #	STN NAME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
222	VIGAN	3.5	3.9	5.4	16.1	194.5	321.8	536.3	630.3	382.6	143.8	36.3	2.9	2277.4
223	LAOAG	5.3	2.8	6.0	24.8	246.9	312.9	448.2	583.9	415.8	103.3	30.2	2.8	2182.8
325	DAGUPAN	6.7	10.7	22.2	60.4	209.8	337.9	499.6	581.3	368.4	215.9	53.9	14.1	2380.9
328	BAGUIO	15.2	23.4	46.0	104.1	341.1	475.8	781.9	905.0	570.9	454.3	97.4	26.2	3841.4

JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
1.0	29.0	7.3	0.0	18.9	6.4	0.0	6.7	2.5	1.0	13.7	5.8	157.8	196.3	178.2	166.7	344.3	239.4
1.0	1.4	0.6	0.0	5.0	1.2	0.0	10.6	1.7	5.0	12.3	8.2	184.3	266.5	218.4	189.8	387.1	277.0
1.0	0.3	0.0	0.0	0.3	0.0	0.0	0.8	0.0	1.0	10.3	6.2	231.3	293.1	273.5	332.2	457.8	418.1
1.0	2.6	0.3	0.0	14.5	1.5	0.0	25.0	5.0	0.0	20.1	5.8	136.0	249.2	177.8	157.3	438.3	273.6

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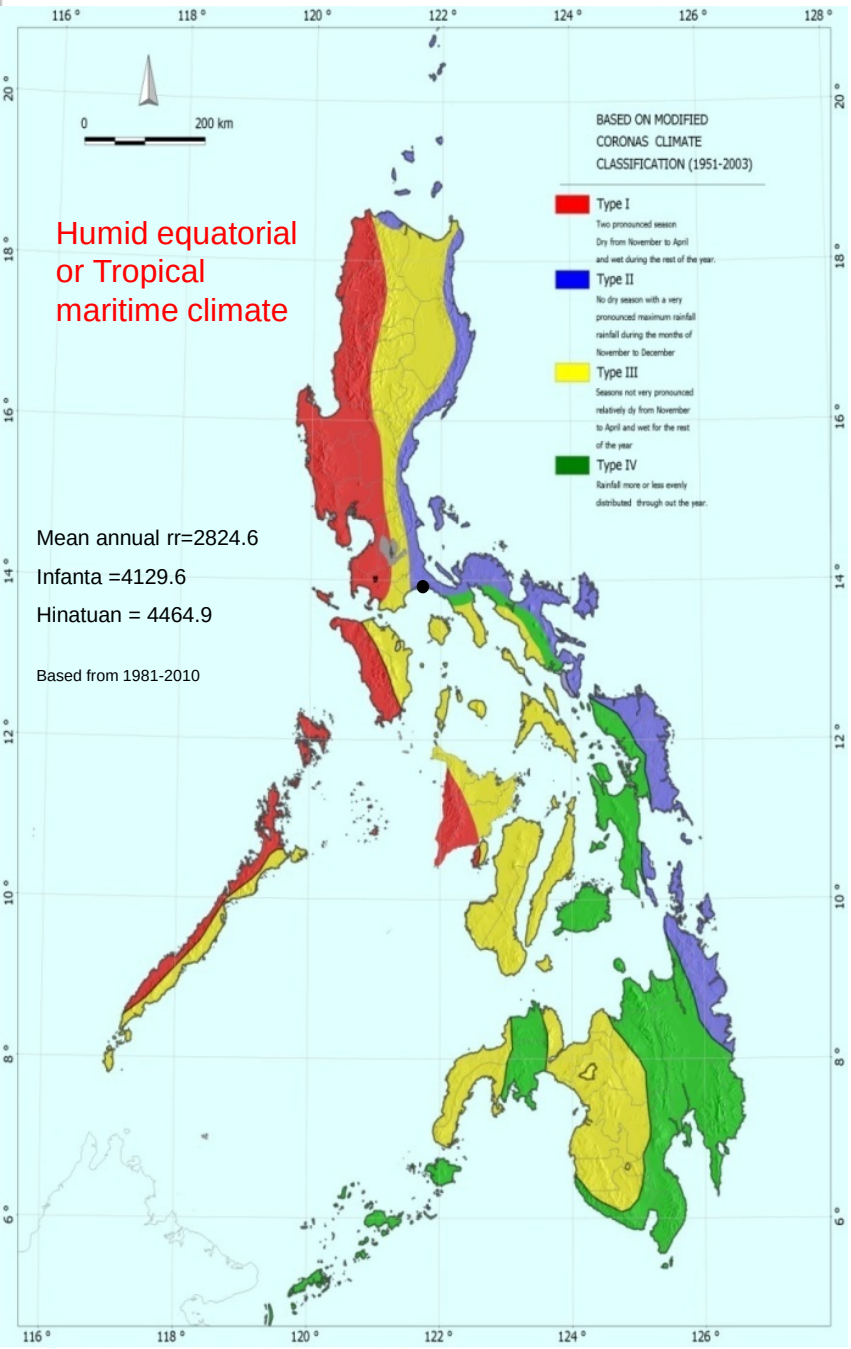
PHILIPPINE CLIMATE



Climate Classification:

Type I

Two pronounced season dry from November to April and wet for the rest of the year. maximum rain period coincides with the peak of the southwest monsoon (July to September).

Type II

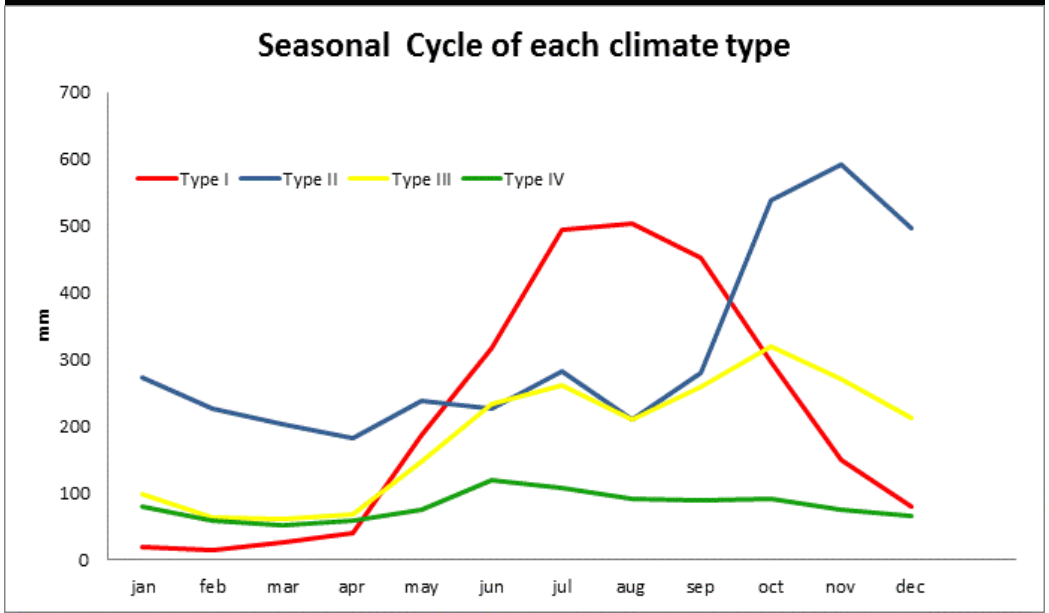
No dry season with a very pronounced maximum rainfall from November to April and wet for the rest of the year.

Type III

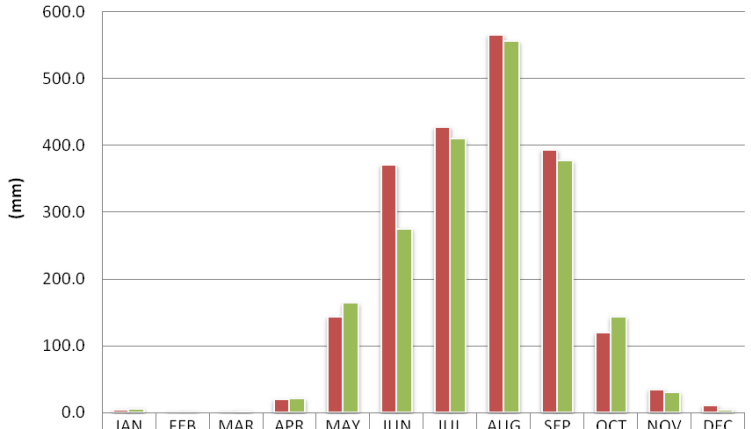
Season not very pronounced relatively dry November to April and wet for the rest of the year

Type IV

Rainfall more or less evenly distributed through out the year

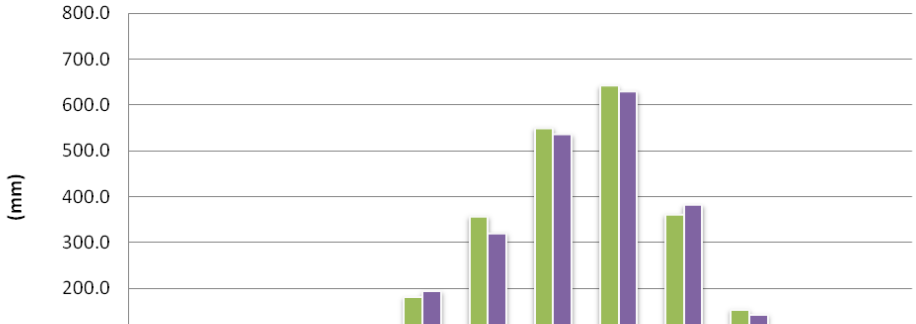


LAOAG MONTHLY NORMAL RAINFALL



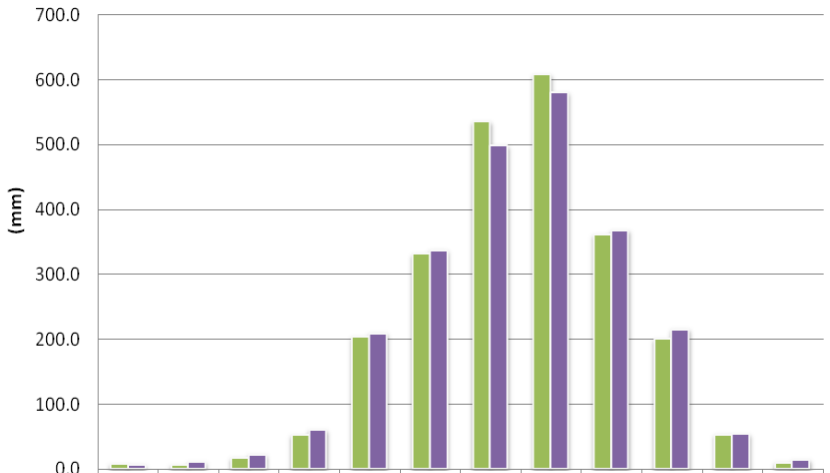
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1961-1990	4.7	0.9	1.9	20.1	144.0	371.2	428.1	566.1	393.9	119.7	35.1	10.9
1971-2000	6.6	1.7	3.1	21.5	164.4	275.7	411.4	556.6	377.9	143.6	30.4	5.0

VIGAN MONTHLY NORMAL RAINFALL



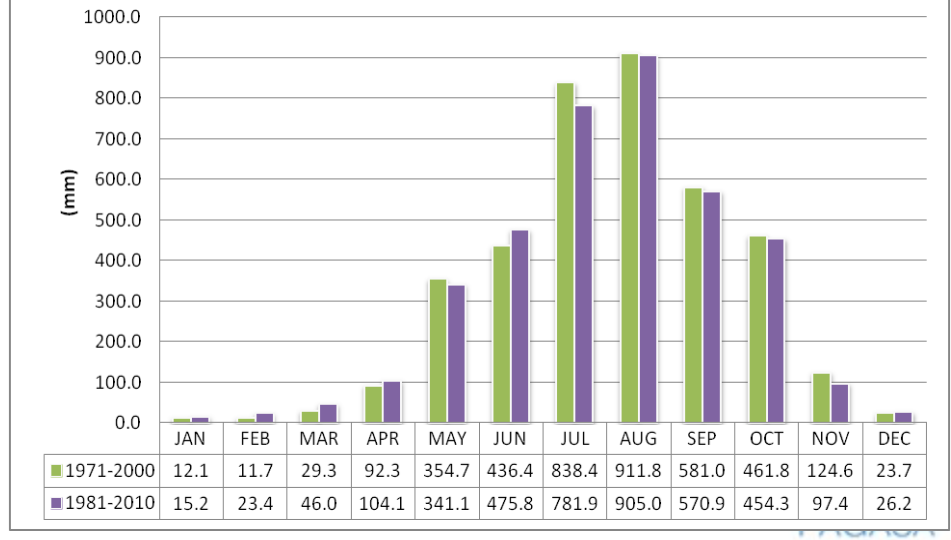
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1971-2000	3.5	2.9	3.2	12.0	182.2	357.7	550.5	642.2	362.1	154.3	33.2	4.9
1981-2010	3.5	3.9	5.4	16.1	194.5	321.8	536.3	630.3	382.6	143.8	36.3	2.9

DAGUPAN MONTHLY NORMAL RAINFALL



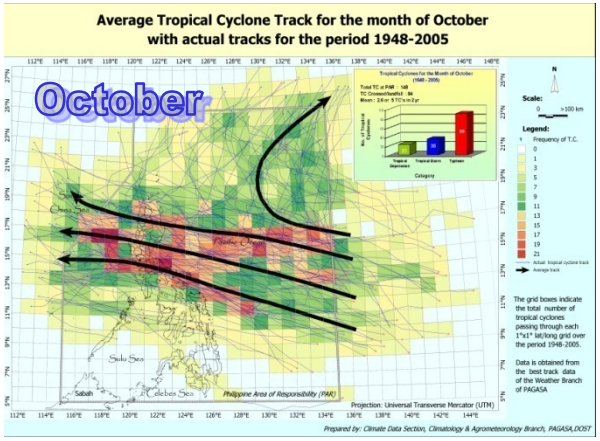
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1971-2000	7.8	6.1	17.5	52.8	204.4	331.8	536.1	608.6	362.2	200.6	53.4	10.4
1981-2010	6.7	10.7	22.2	60.4	209.8	337.9	499.6	581.3	368.4	215.9	53.9	14.1

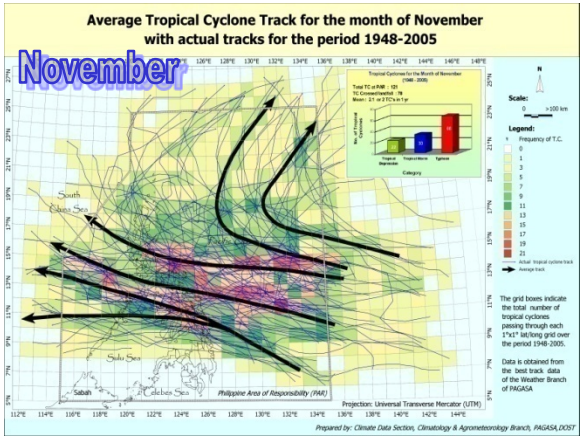
BAGUIO MONTHLY NORMAL RAINFALL

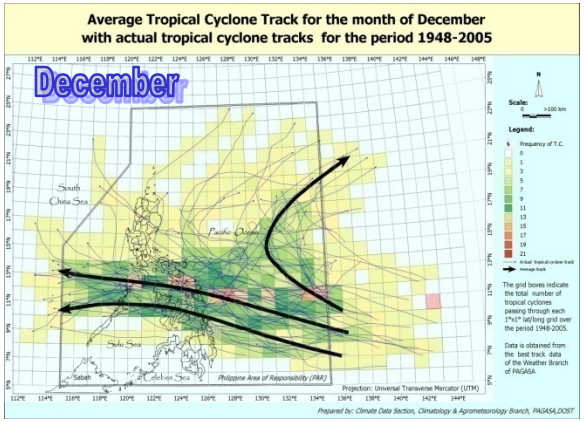


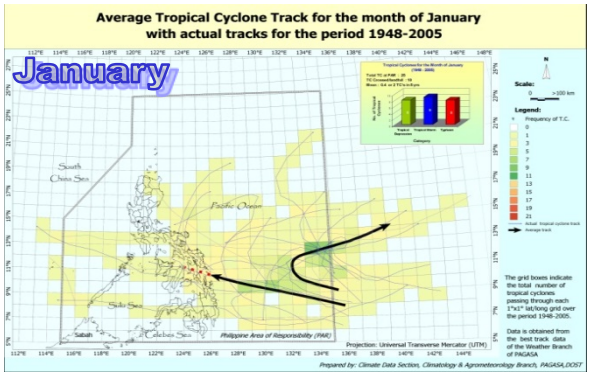
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1971-2000	12.1	11.7	29.3	92.3	354.7	436.4	838.4	911.8	581.0	461.8	124.6	23.7
1981-2010	15.2	23.4	46.0	104.1	341.1	475.8	781.9	905.0	570.9	454.3	97.4	26.2

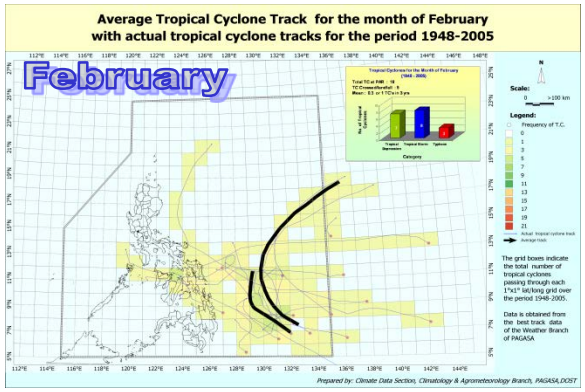
Average tropical cyclone tracks (1948-2005)

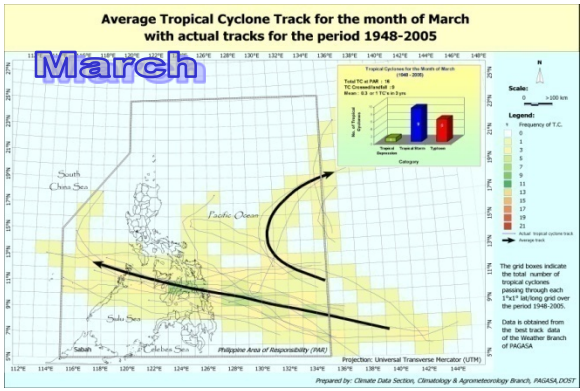


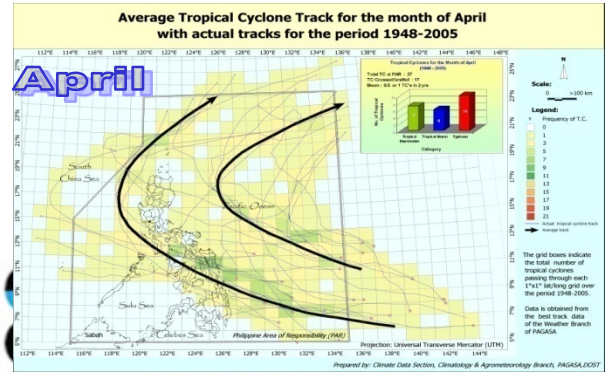


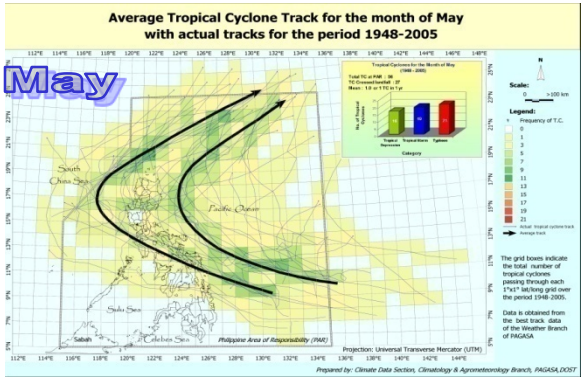


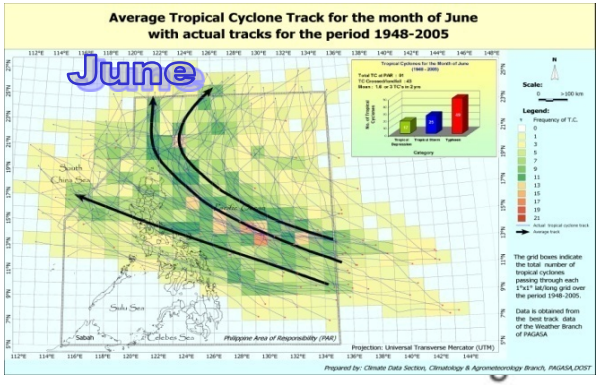




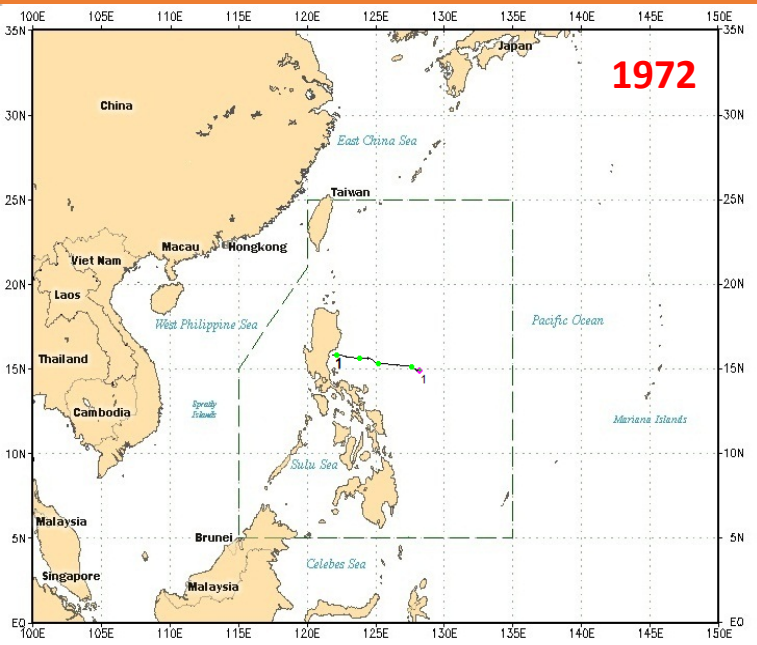






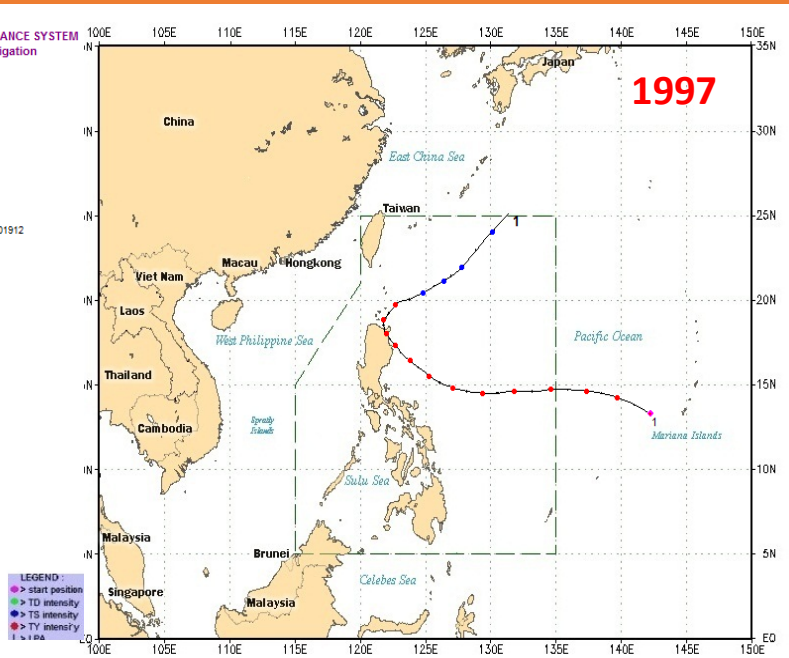


October TCs During Past Strong El Nino Events (1972-73, 1982- 83, 1997-98, 2009-10)



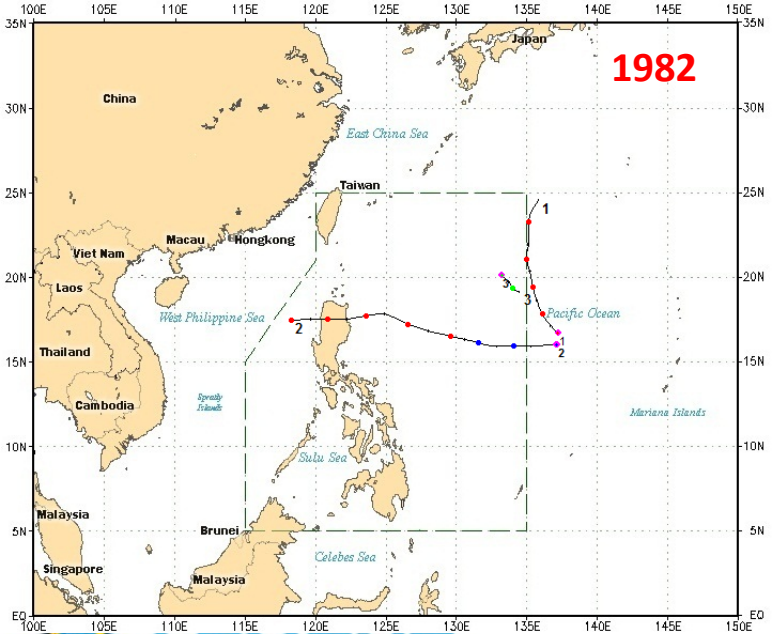
TROPICAL CYCLONE GUIDANCE SYSTEM
Statistical Investigation
Region: Entire Archipelago
0°N, 110°E - 30°N, 150°E
TC Intensity: TY / TS / TD
Year Range: 1 year/s
1972
Month Range: 1 month/s
Oct
Day Range: 31 day/s
whole month
Result : 1 TC tracks drawn

TD SENIANG -1972-101706 to 101912



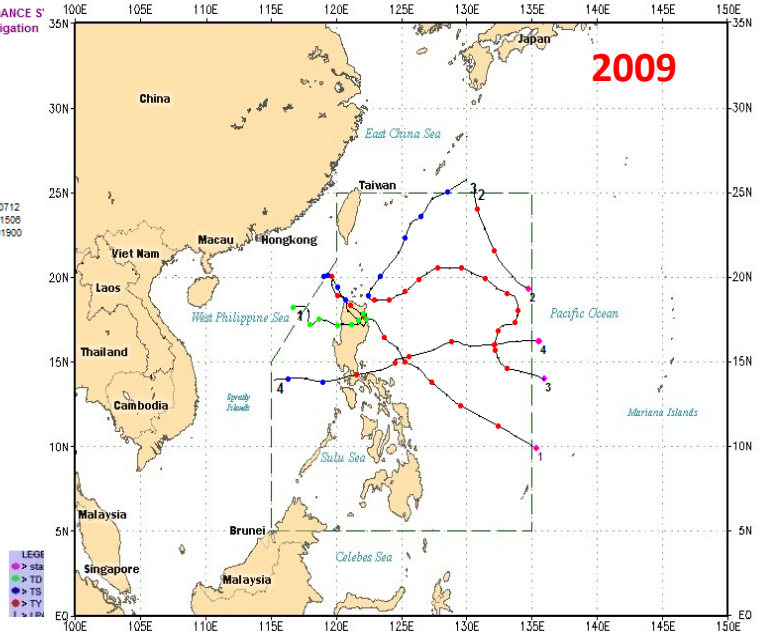
TROPICAL CYCLONE GUIDANCE SYSTEM
Statistical Investigation
Region: Entire Archipelago
0°N, 110°E - 30°N, 150°E
TC Intensity: TY / TS / TD
Year Range: 1 year/s
1997
Month Range: 1 month/s
Oct
Day Range: 31 day/s
whole month
Result : 1 TC tracks drawn

TY NARSING -1997-101500 to 102306



TROPICAL CYCLONE GUIDANCE S'
Statistical Investigation
Region: Entire Archipelago
0°N, 110°E - 30°N, 150°E
TC Intensity: TY / TS / TD
Year Range: 1 year/s
1982
Month Range: 1 month/s
Oct
Day Range: 31 day/s
whole month
Result : 3 TC tracks drawn

TY UDING -1982-100506 to 100712
TY WELING -1982-101118 to 101506
TD YANING -1982-101806 to 101900



TROPICAL CYCLONE GUIDANCE SYSTEM
Statistical Investigation
Region: Entire Archipelago
0°N, 110°E - 30°N, 150°E
TC Intensity: TY / TS / TD
Year Range: 1 year/s
2009
Month Range: 1 month/s
Oct
Day Range: 31 day/s
whole month
Result : 4 TC tracks drawn

TY PEPENG-2009-093006 to 101012
TY QUEDAN -2009-100506 to 100812
TY RAMIL-2009-101606 to 102512
TY SANTI-2009-102812 to 110100

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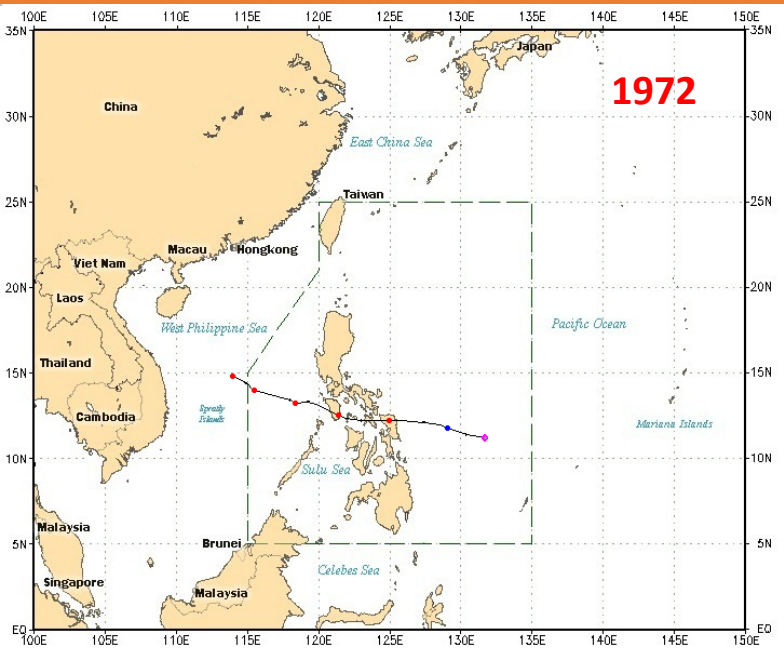
November TCs During Past Strong El Nino Events (1972-73, 1982- 83, 1997-98, 2009-10)

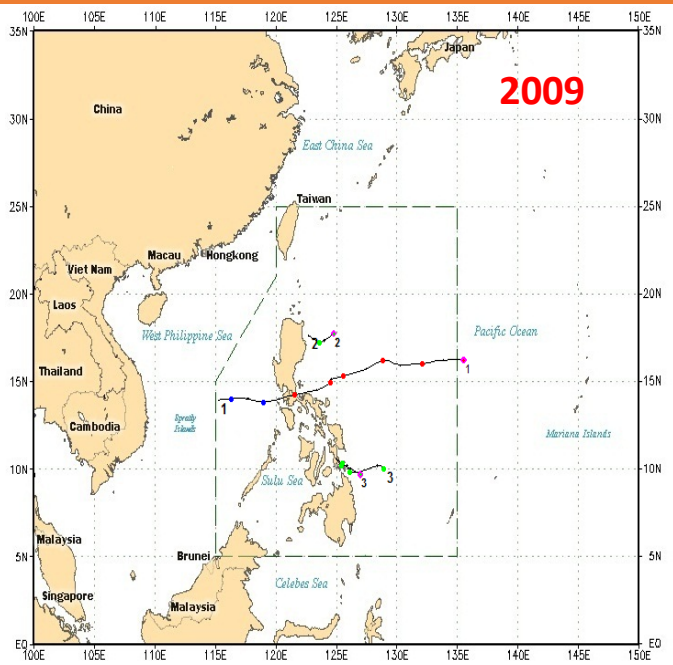


TROPICAL CYCLONE GUIDANCE SYSTEM
Statistical Investigation

Region: Entire Archipelago
0°N, 110°E - 30°N, 150°E
TC Intensity: TY / TS / TD
Year Range: 1 year/s
1972
Month Range: 1 month/s
Nov
Day Range: 31 day/s
whole month
Result : 1 TC tracks drawn

TY TOYANG -1972-110400 to 110700

LEGEND :
> start position
> TD intensity
> TS intensity
> TY intensity

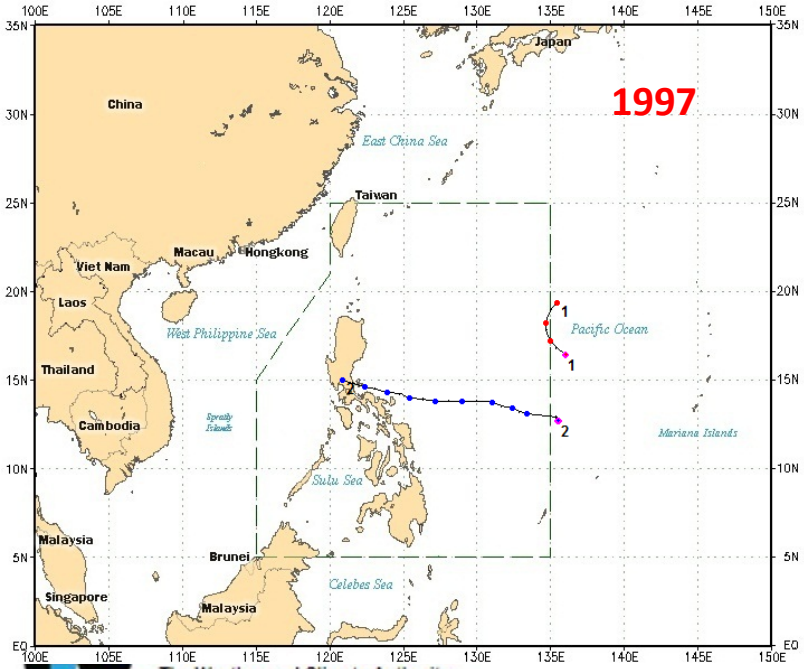


TROPICAL CYCLONE GUIDANCE SYSTEM
Statistical Investigation

Region: Entire Archipelago
0°N, 110°E - 30°N, 150°E
TC Intensity: TY / TS / TD
Year Range: 1 year/s
2009
Month Range: 1 month/s
Nov
Day Range: 31 day/s
whole month
Result : 3 TC tracks drawn

TY SANTI-2009-102812 to 110100
TD TINO-2009-110206 to 110300
TD URDUJA-2009-112306 to 112506

LEGEND :
> start position
> TD intensity
> TS intensity
> TY intensity



TROPICAL CYCLONE GUIDANCE SYSTEM
Statistical Investigation

Region: Entire Archipelago
0°N, 110°E - 30°N, 150°E
TC Intensity: TY / TS / TD
Year Range: 1 year/s
1997
Month Range: 1 month/s
Nov
Day Range: 31 day/s
whole month
Result : 2 TC tracks drawn

TY OPENG -1997-110408 to 110518
TS PINING -1997-111200 to 111612

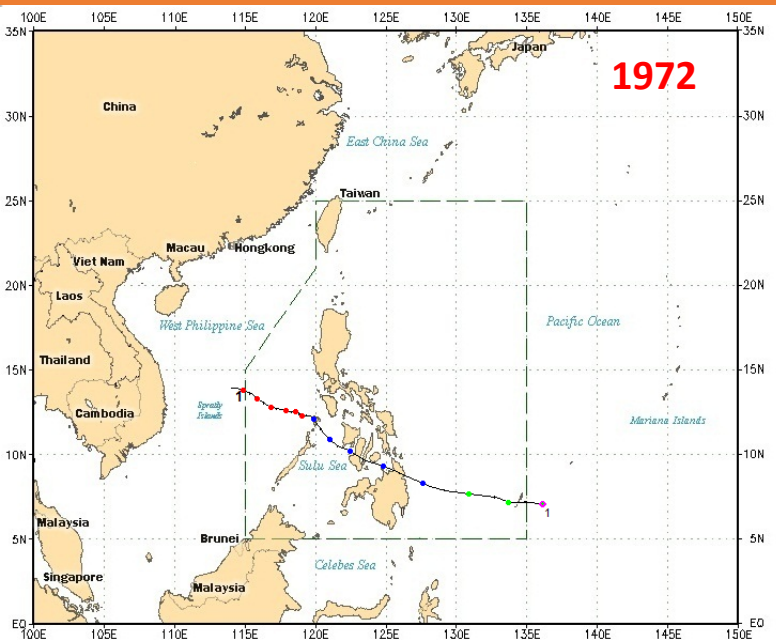
LEGEND :
> start position
> TD intensity
> TS intensity
> TY intensity

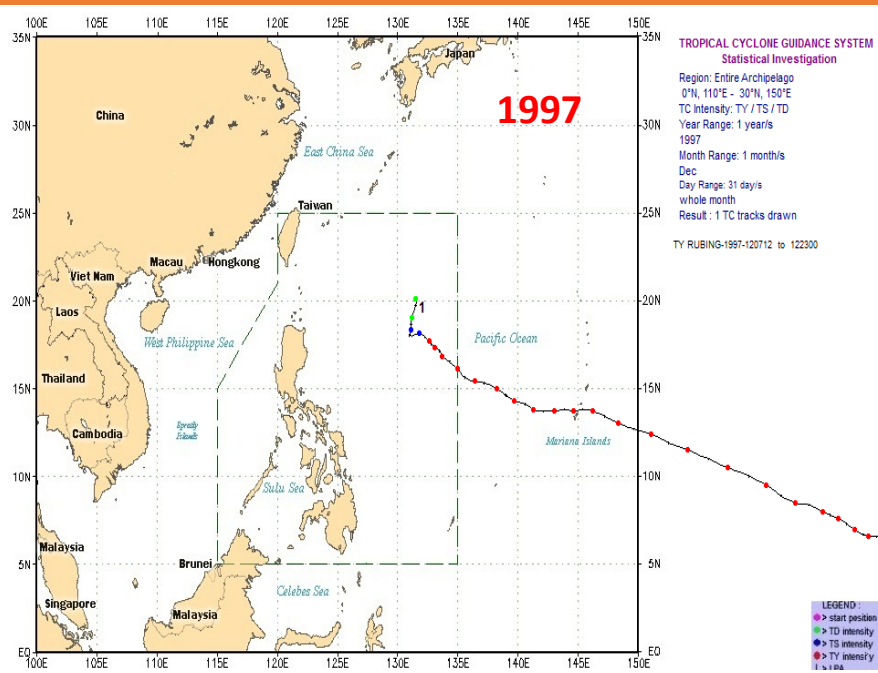
➢ No Tropical Cyclone (TC) occurrence in <u>Nov. 1982</u>

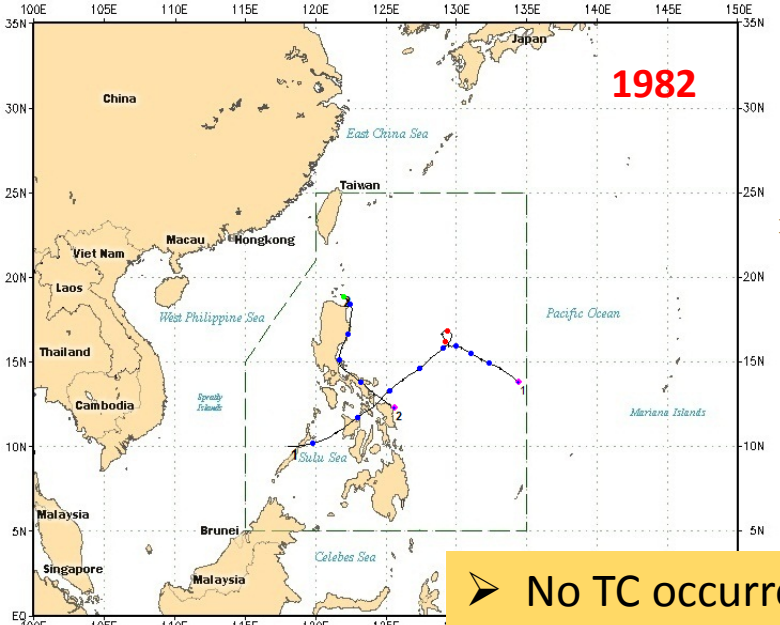
The Weather and Climate Authority

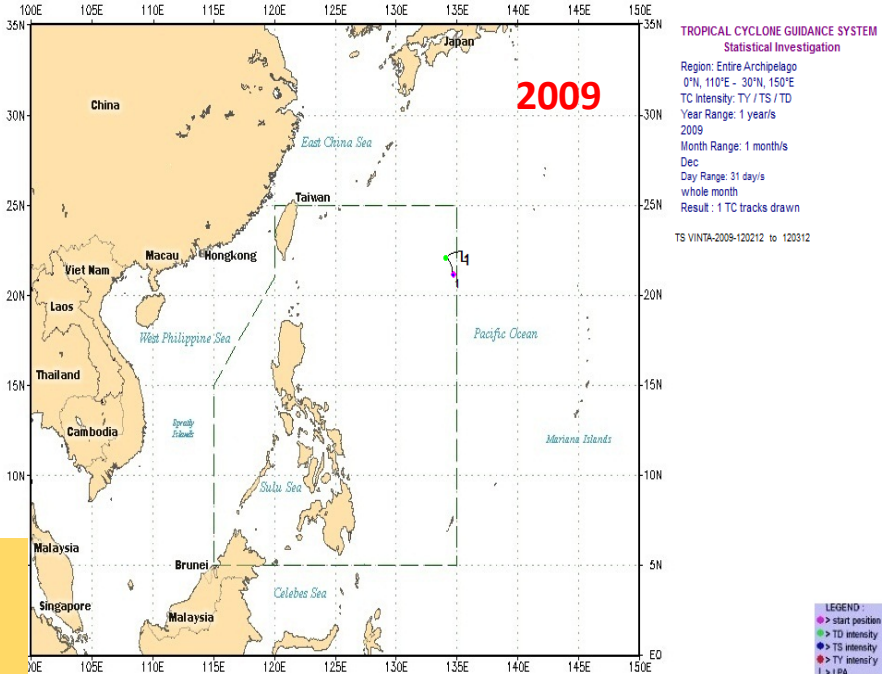
Payong PAGASA

December TCs During Past Strong El Nino Events (1972-73, 1982- 83, 1997-98, 2009-10)









- No TC occurrence in Jan. and Feb. for the 4 events