







170th Climate Forum



VIA ZOOM, YOUTUBE AND FACEBOOK MARCH 20, 2024 9:00 AM TO 12:00 PM













FEBRUARY - MARCH 17, 2024



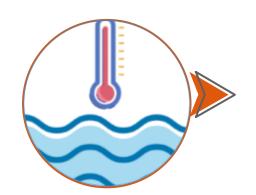
PRESENTED BY:

MS. JOANNE MAE B. ADELINO Climatology & Agrometeorology Division (CAD)

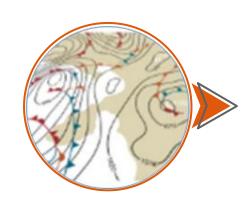


Content Outline





Recent ENSO Condition



Weather Systems



Climate Assessment



Summary



DOST-**PAGASA ENSO ALERT AND** WARNING **SYSTEM**







WATCH

BE AWARE AND PREPARED



ALERT

TAKE EARLY ACTION



ADVISORY

TAKE ACTION



ASSESS AND TAKE ACTION WHENEVER NECESSARY

RECAST

TYPE

WARNING

If the conditions are favorable with 55% chance of El Niño / La Niña development within the next six months

If the conditions are favorable with 70% chance of El Niño / La Niña development within the next two months

El Niño / La Niña is

observed and expected to continue within the next 5 consecutive overlapping 3-months and the probability is 80% or more.

El Niño / La Niña has ended.

- Press Statement
- Monthly Climate Assessment and Outlook

- Press Statement
- Monthly Climate Assessment and Outlook
- (El Niño) Dry Spell and **Drought Assessment** and Outlook

- Press Statement and **Press Briefing**
- El Niño / La Niña Advisories
- (El Niño) Dry Spell and Drought Assessment and Outlook

- Press Statement
- Final Advisory
- (El Niño) Dry Spell and Drought Assessment and Outlook



El Nino Watch issued: 23 March 2023

EARLY ACTION!

Alert issued: 02 May 2023



Advisory #1 issued: 04 July 2023ongoing



La Nina Watch issued: 07 March 2024

ENSO Alert System Status

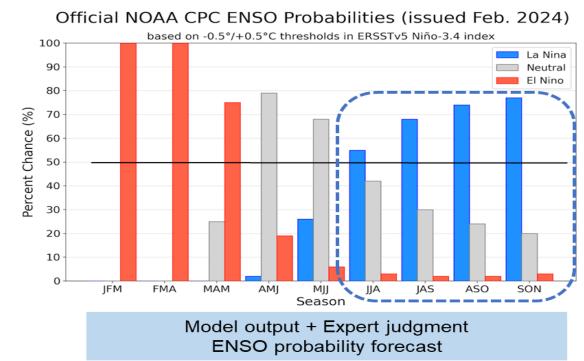
EL NIÑO ADVISORY



- El Niño across the tropical Pacific Ocean shows signs of weakening and is expected to persist until March-April-May (MAM) 2024 season.
- Majority of climate models suggest a transition to ENSO-neutral conditions during the April-May-June (AMJ) 2024 season (79% chance). However, there is a likelihood for La Niña to develop (55% chance) during the June-July-August (JJA) 2024 season.
- With this development, the PAGASA ENSO Alert and Warning System is now raised to La Niña Watch. (updated 07 March 2024)

El Niño Advisory #9 / La Niña Watch issued

What are the chances?



- El Niño (red bar) is expected to continue until MAM season
- ➤ A transition to ENSO-neutral is anticipated by April-June 2024 (79% chance).
- ➤ increasing odds of La Niña (blue bar) developing in June-August 2024 (55% chance)



ENSO Alert System Status

EL NIÑO ADVISORY





within the next six

months



Administration (PAGASA)

- PRESS STATEMENT DOST-PAGASA S & T Media Service Quezon City, 07 March 2024
 - EL NIÑO ADVISORY No. 9 / LA NIÑA WATCH

Philippine Atmospheric, Geophysical and Astronomical Services

PAGASA has been continuously monitoring the El Niño Southern Oscillation (ENSO) in the tropical Pacific. The El Niño Advisory No. 9 was issued stating that El Nino started to weaken and may return to ENSO-neutral conditions during the April-May-June (AMJ) 2024 season. However, model forecasts suggest an increasing probability of La Niña to develop in the June-July-August (JJA) 2024 season. With this development, the PAGASA ENSO Alert and Warning System is now raised to **La Niña Watch**.

La Niña (cool phase of ENSO) is characterized by unusually cooler than average sea surface temperatures (SSTs) in the central and eastern equatorial Pacific (CEEP). When conditions are favorable for the development of La Niña within the next six months and the probability is 55% or more, a La Niña Watch is issued.

Pre-developing La Niña historically, is characterized with below normal rainfall, therefore, the possibility of a slight delay on the onset of rainy season is likely with the combined effects of the ongoing El Niño.

PAGASA will continue to closely monitor the ongoing El Niño, its effect on the local climate, and the possibility of La Niña. All concerned agencies and the public are encouraged to keep on monitoring and take precautionary measures against their potential impacts.

For more information, please call the Climate Monitoring and Prediction Section (CLIMPS), Climatology and Agrometeorology Division (CAD) at telephone number (02) 8284-0800 local 4920 and 4921 or through email: pagasa.climps@gmail.com.

Original Signed

NATHANIEL T. SERVANDO, Ph.D. Administrator

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El Niño Advisory #9 / La Niña Watch issued



ENSO Alert System Status

EL NIÑO ADVISORY

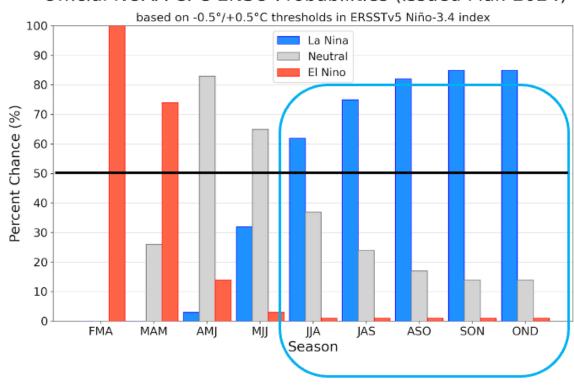


- El Niño across the tropical Pacific Ocean shows signs of weakening and is expected to persist until March-April-May (MAM) 2024 season.
- Majority of climate models suggest a transition to ENSO-neutral conditions during the April-May-June (AMJ) 2024 season (79% chance). However, there is a likelihood for La Niña to develop (55% chance) during the June-July-August (JJA) 2024 season.
- With this development, the PAGASA ENSO Alert and Warning System is now raised to La Niña Watch. (updated 07 March 2024)

El Niño Advisory #9 / La Niña Watch issued

Updated: 14 March 2024

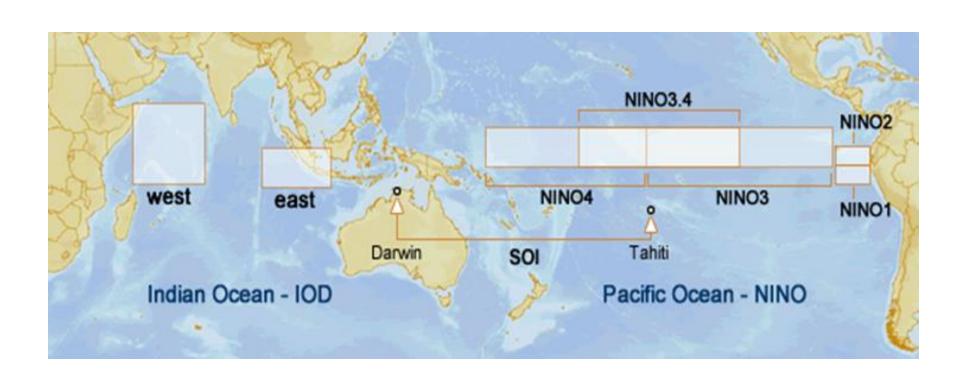
Official NOAA CPC ENSO Probabilities (issued Mar. 2024)



Increasing odds of La Niña (blue bar) developing in June-August 2024 (60% chance).



ENSO Indicators



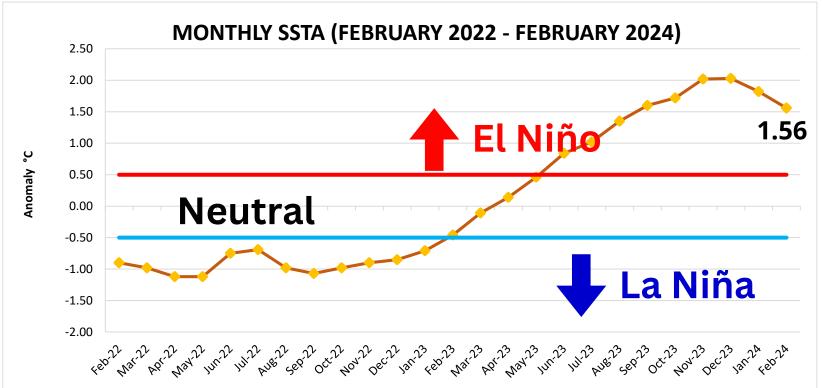
Both atmospheric (SOI) and oceanic (SSTA) indicators are at **El Niño** levels.

Southern Oscillation Index (SOI)

standardized anomaly of the mean sea level pressure difference between Tahiti and Darwin

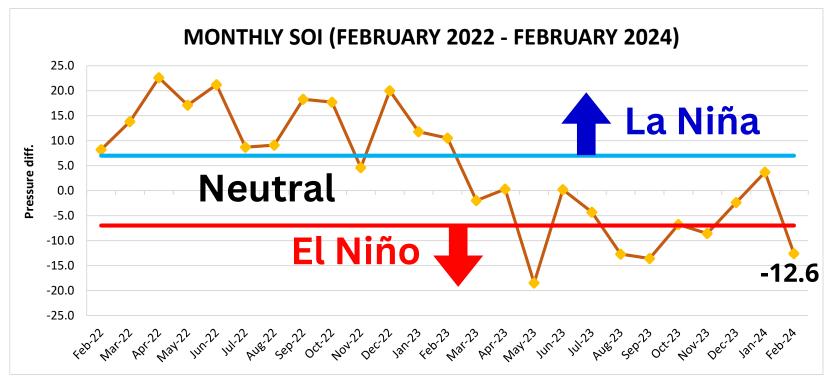
Oceanic Indicator

Extended Reconstructed Sea Surface Temperature (ERSST)



Atmospheric Indicator

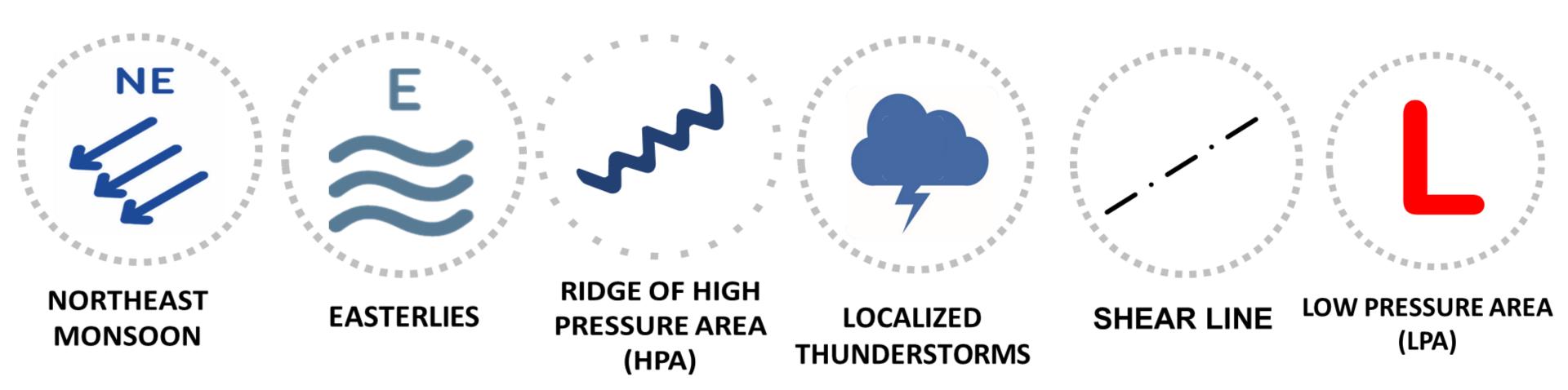
Southern Oscillation Index (SOI)





Weather Systems that affected the country

February – March 17, 2024

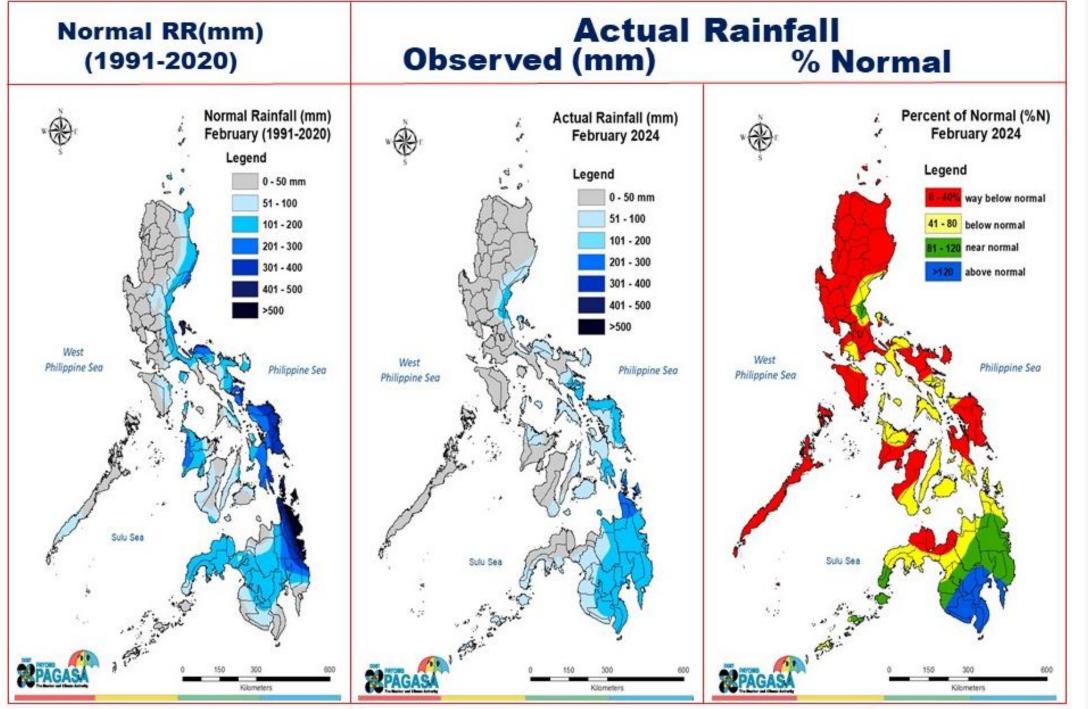




Rainfall Assessment



Actual Rainfall for February 2024



February 2024

RAINFALL PER PROVINCE

42 - Way below normal

26 - Below normal

10 - Near normal

6 - Above normal

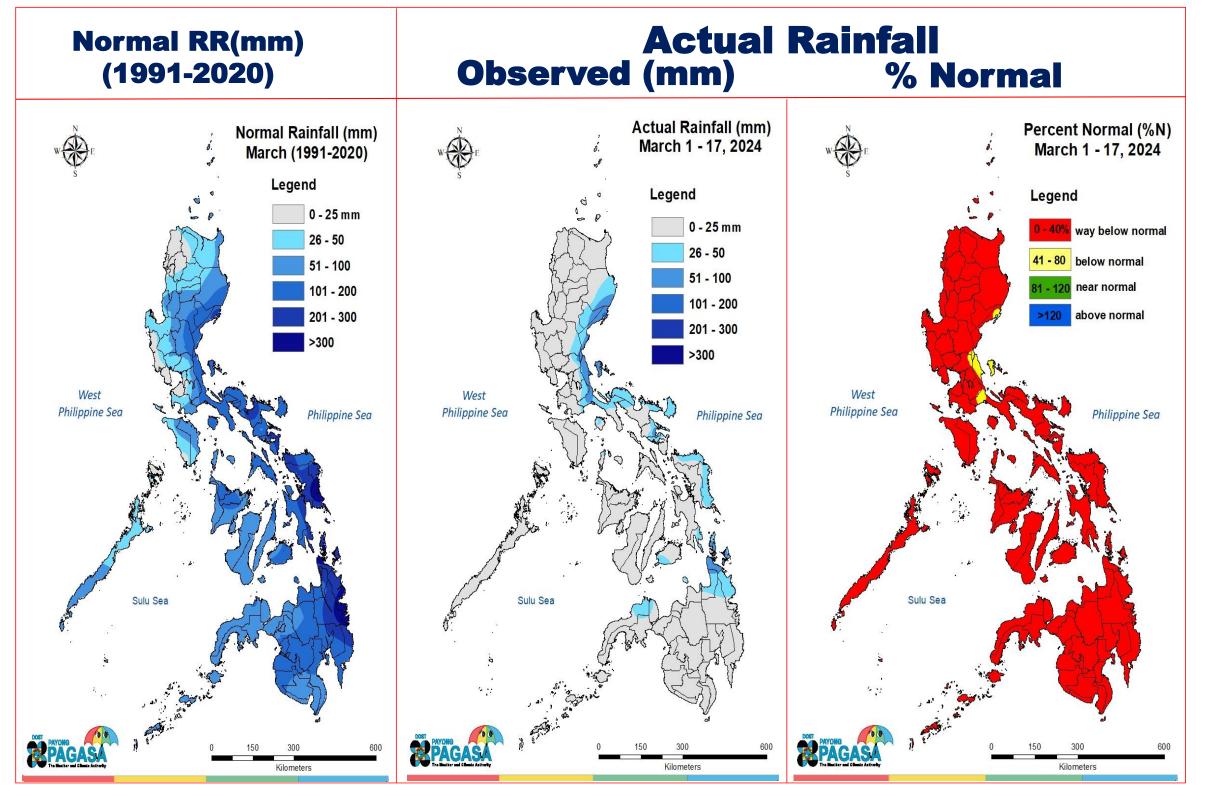
PERCENTAGE (%)	RAINFALL CONDITION
Less than or = 40	way below normal
41 – 80	below normal
81 – 120	near normal
Greater than 120	above normal



Rainfall Assessment

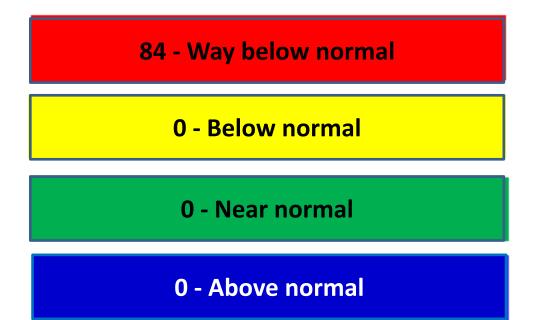


Actual Rainfall for March 1-17, 2024



March 1-17, 2024

RAINFALL PER PROVINCE



PERCENTAGE (%)	RAINFALL CONDITION
Less than or = 40	way below normal
41 – 80	below normal
81 – 120	near normal
Greater than 120	above normal

Dry Condition/ Dry Spell/ Drought Assessment





Rainfall Conditions for 2 Consecutive Months



DRY SPELL

Rainfall Conditions for 3 Consecutive Months

Rainfall Conditions for **5 Consecutive Months**

Below Normal

Way Below
Normal Rainfall
Conditions for
2 Consecutive
Months

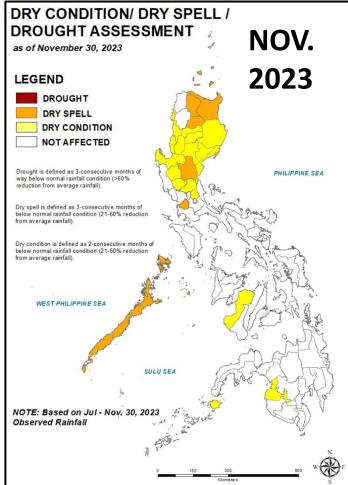
Way Below
Normal Rainfall
Conditions for
3 Consecutive
Months

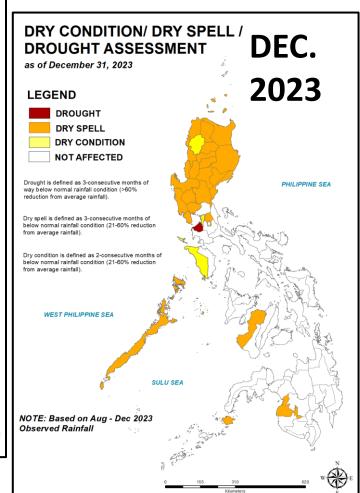


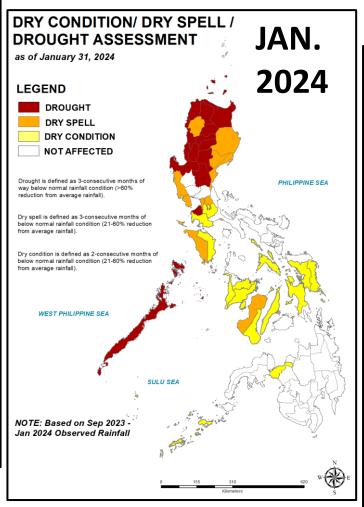
^{*}Near normal rainfall conditions 81%- 120%

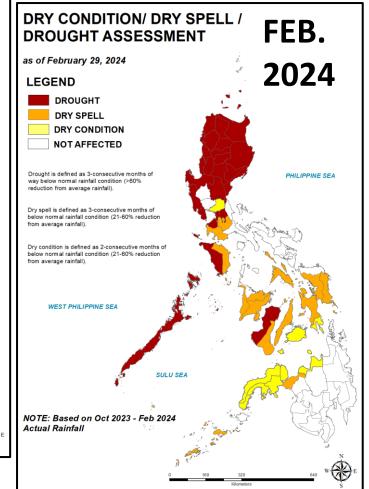
^{**}Below normal rainfall conditions = 21% - 60% reduction from average; Nay below normal rainfall coverage = More than 60% reduction from average

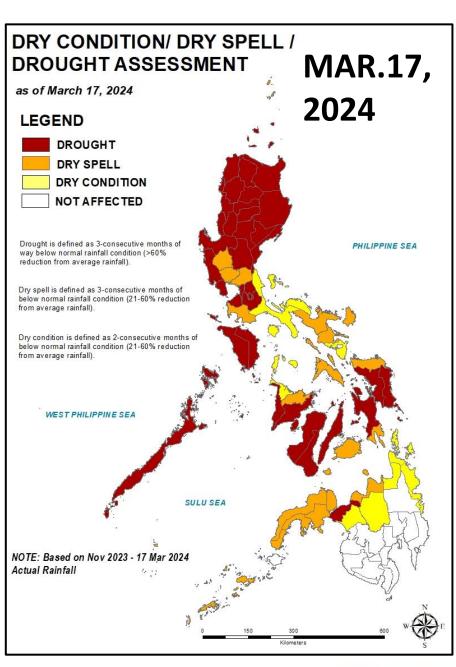
IMPACTS OF ONGOING EL NIÑO















Outlook

OUTLOOK FOR AREAS POTENTIAL FOR

end of February 2024

DROUGHT

DRY SPELL

DRY CONDITION

NOT AFFECTED

Drought is defined as 3-consecutive months of way below normal rainfall condition (>60% reduction from average rainfall).

Dry spell is defined as 3-consecutive months of below normal rainfall condition (21-60% reduction from average rainfall).

Dry condition is defined as 2-consecutive months of below normal rainfall condition (21-60% reduction from average rainfall).

NOTE: Based on Sep 2023 - Jan 2024 Observed Rainfall and Feb - Jul 2024

Issued: 05 February 2024 thority

Forecast Rainfall

WEST PHILIPPINE SEA

LEGEND

DRY CONDITION, DRY SPELL AND DROUGHT

PHILIPPINE SEA

OUTLOOK OVER DIFFERENT PROVINCES by end of Feb 2024

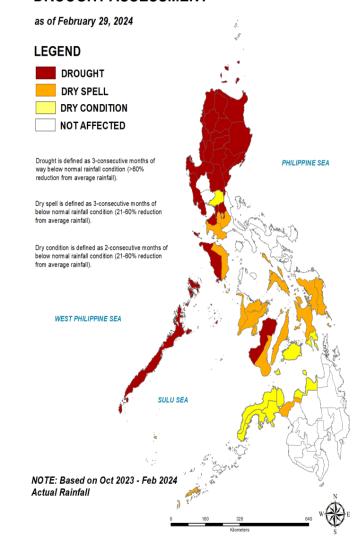
AREA	DRY CONDITION	DRY SPELL	DROUGHT
	1	4	23
LUZON	Bulacan	Abra, Apayao, Aurora, Benguet, Cagayan, C Ifugao, Ilocos Norte, Ilo Isabela, Kalinga, La U Metropolitan Manila, N Province, Nueva Ecija, Vizcaya, Occidental M Palawan, Pangasinan, G Rizal, Zambales	
VISAYAS	3	10	1
	Bohol, Siquijor, Southern Leyte	Antique, Biliran, Capiz, Cebu, Eastern Samar, Guimaras, Iloilo, Leyte, Negros Oriental, Samar	Negros Occidental
	6	3	0
MINDANAO	Camiguin, Misamis Occidental, Misamis Oriental, Zamboanga del Norte, Zamboanga del Sur, Zamboanga Sibugay	Lanao del Norte, Sulu, Tawi- Tawi	None
TOTAL	10	17	24

The assessment and forecasts provided are scheduled to be updated every first week of the month.



Actual

DRY CONDITION/ DRY SPELL / DROUGHT ASSESSMENT



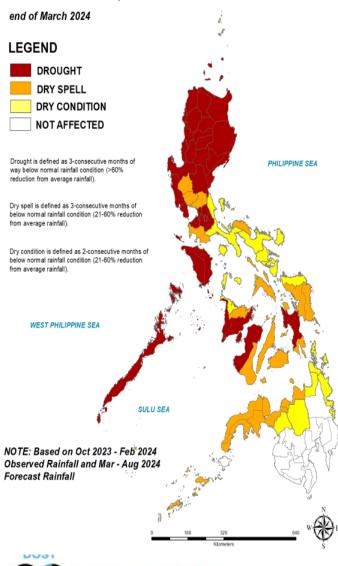
OVER DIFFERENT PROVINCES As of Feb 2024 (ACTUAL)

AREA	DRY CONDITION	DRY SPELL	DROUGHT	
	1	4	23	
LUZON	Bulacan	Batangas, Laguna, Masbate, Oriental Mindoro	Abra, Apayao, Aurora, Bataan, Benguet, Cagayan, Cavite, Ifugao, Ilocos Norte, Ilocos Sur, Isabela, Kalinga, La Union, Metropolitan Manila, Mountain Province, Nueva Ecija, Nueva Vizcaya, Occidental Mindoro, Palawan, Pangasinan, Quirino, Rizal, Zambales	
VISAYAS	3	10	1	
	Bohol, Siquijor, Southern Leyte	Antique, Biliran, Capiz, Cebu, Eastern Samar, Guimaras, Iloilo, Leyte, Negros Oriental, Samar	Negros Occidental	
	6	2	0	
MINDANAO	Camiguin, Misamis Occidental, Misamis Oriental, Zamboanga del Norte, Zamboanga del Sur, Zamboanga Sibugay	Lanao del Norte, Tawi-Tawi	None	
TOTAL	10	16	24	

Issuance: 2024-03-04

Outlook

OUTLOOK FOR AREAS POTENTIAL FOR DRY CONDITION, DRY SPELL AND DROUGHT



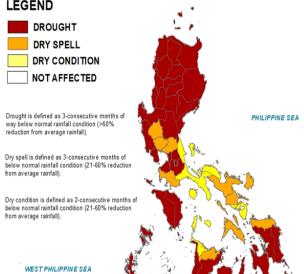
Issuance: 2024-03-04

OUTLOOK OVER DIFFERENT PROVINCES by end of Mar 2024

AREA	DRY CONDITION	DRY SPELL	DROUGHT	
	9	5	25	
LUZON	Albay, Batanes, Camarines Norte, Camarines Sur, Catanduanes, Marinduque, Quezon, Romblon, Sorsogon	Batangas, Bulacan, Masbate, Pampanga, Tarlac	Abra, Apayao, Aurora, Bataan, Benguet, Cagayan, Cavite, Ifugao, Ilocos Norte, Ilocos Sur, Isabela, Kalinga, La Union, Laguna, Metropolitan Manila, Mountain Province, Nueva Ecija, Nueva Vizcaya, Occidental Mindoro, Oriental Mindoro, Palawan, Pangasinan, Quirino, Rizal, Zambales	
	2	9	5	
VISAYAS	Aklan, Northern Samar	Biliran, Bohol, Capiz, Cebu, Eastern Samar, Negros Oriental, Samar, Siquijor, Southern Leyte	Antique, Guimaras, Iloilo, Leyte, Negros Occidental	
	4	8	0	
MINDANAO	Agusan del Norte, Dinagat Islands, Lanao del Sur, Surigao del Norte	Camiguin, Lanao del Norte, Misamis Occidental, Misamis Oriental, Tawi-Tawi, Zamboanga del Norte, Zamboanga del Sur, Zamboanga Sibugay	None	
TOTAL	15	22	30	

Actual





OVER DIFFERENT PROVINCES As of Mar 2024 (ACTUAL)

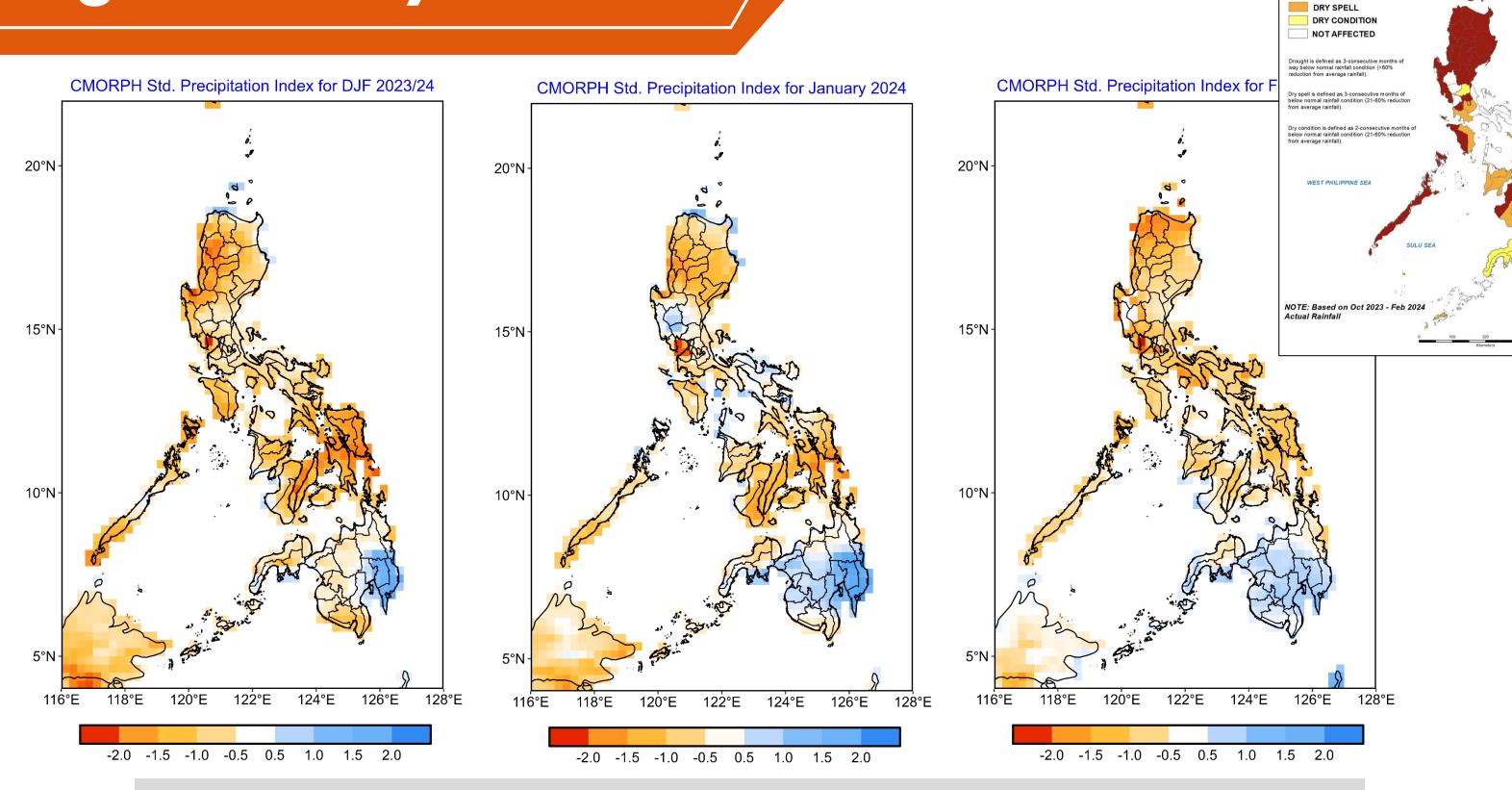
AREA	DRY CONDITION	DRY SPELL	DROUGHT
	5	9	26
LUZON	Camarines Norte, Marinduque, Quezon, Romblon, Sorsogon	Albay, Batanes, Batangas, Bulacan, Camarines Sur, Catanduanes, Masbate, Pampanga, Tarlac	Abra, Apayao, Aurora, Bataan, Benguet, Cagayan, Cavite, Ifugao, Ilocos Norte, Ilocos Sur, Isabela, Kalinga, La Union, Laguna, Metropolitan Manila, Mountain Province, Nueva Ecija, Nueva Vizcaya, Occidental Mindoro, Oriental Mindoro, Palawan, Pangasinan, Quirino, Rizal, Spratly Islands, Zambales
	1	5	10
VISAYAS	Aklan	Bohol, Capiz, Northern Samar, Siquijor, Southern Leyte	Antique, Biliran, Cebu, Eastern Samar, Guimaras, Iloilo, Leyte, Negros Occidental, Negros Oriental, Samar
	6	8	1
MINDANAO	Agusan del Norte, Bukidnon Dinagat Islands, Lanao del Sur, Surigao del Norte, Surigao del Sur	Camiguin, Misamis Occidental, Misamis Oriental, Sulu, Tawi-Tawi, Zamboanga del Norte, Zamboanga del Sur, Zamboanga Sibugay	Lanao del Norte
TOTAL	12	22	37

Issuance: 2024-03-17

NOTE: Based on Nov 2023 - 17 Mar 2024 Actual Rainfall



Drought Severity



DRY CONDITION/ DRY SPELL / DROUGHT ASSESSMENT

as of February 29, 2024

LEGEND

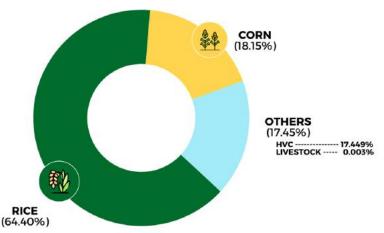
DROUGHT

CMORPH SPI model showed drier than normal conditions in most parts of the country.



Significant Impacts











32,231 Ha 25,315 Ha (78.54%) 6,917 Ha (21.46%) Area Affected



P1.75 B



EARLIER: The municipality of Mansalay in Oriental Mindoro was placed under a state of calamity.

According to Mayor Ferdinand Maliwanag, the damage caused by El Niño to their crops has reached a value of P400 million. I via Dennis Datu, ABS-CBN News





Prov'l council wants Occidental Mindoro placed under state of calamity

By Miguel Gil the March 18, 2024, 6:48 pm Share O X 🖎 🖂



MAMBURAO, Occidental Mindoro – The Provincial Disaster Risk Reduction and Management Council DRRMC) here has formally recommended to the Sangguniang Panlalawigan (SP) or provincial council that the

In a social media post on Monday, Governor Eduardo Gadiano, who concurrently chairs the PDRRMC, said an estimated PHP300 million worth of crops have already been ruined by the lack of water caused by El Niño.

Making matters worse, the island province is simultaneously battling an onslaught of armyworms (Spodoptera frugiperda), locally called "harabas," which is exacerbating the devastation to agriculture caused by the drought the governor noted, quoting a report from provincial agriculturist Alrizza Zuburi.

The armyworms infestation has reportedly cost the province's agricultural sector another PHP30 million in

"PDRRMC Resolution No. 01 (state of calamity recommendation) has already been transmitted to the provincial council... wherein it is indicated how much funds must be allocated to help affected farmers," Gadiano wrote in



DRY SPELL. Parched ground due to the El Niño in Bicol. Othe areas are also experiencing a severe dry spell such as Occidental Mindoro, where the Provincial Disaster Risk Reduction and Management Council has recommended to the Sangguniang Panlalawigan that the entire province be placed under a state of calamity. (File photo courtesy of DA-Bicol)

Source: https://www.pna.gov.ph/articles/1221060



Significant Impacts



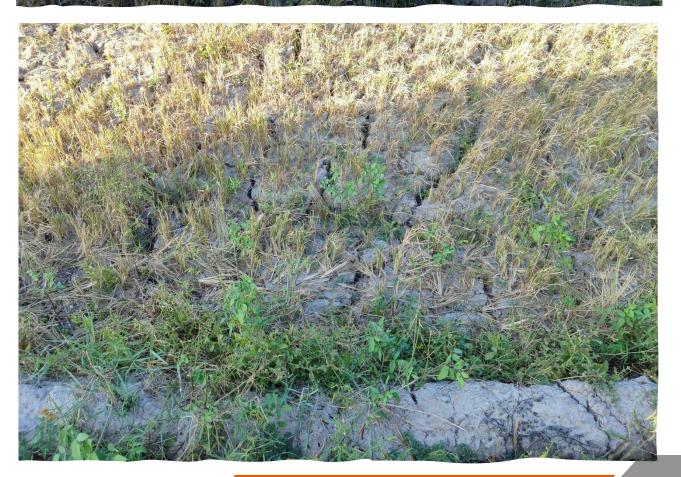






Brgy. Santa Maria, Mandalay, Oriental Mindoro







Significant Weather Events

HEADLINES

NDRRMC: P738M infrastructure damage in Mindanao floods, landslides

Philstar.com February 11, 2024 | 3:13pm



In this handout photo from the Eastern Mindanao Command, Armed Forces of the Philippines (AFP) taken on February 7, 2024 and received on February 8, 2024, shows responders conduct search and rescue operations in Maco, Davao de Oro.

Handout / Armed Forces of the Philippines' Eastern Mindanao Command

Source: https://www.philstar.com/headlines/2024/02/11/2332580/ndrrmc-p738minfrastructure-damage-mindanao-floods-landslides

ANC

told state television PTV.

12,000 still in evacuation centers after Mindanao floods: DSWD

Katrina Domingo, ABS-CBN News Published February 21, 2024 05:38 PM

official from the Department of Social Welfare and Development (DSWD)

The agency has disbursed P537 million in humanitarian relief for 764,000

Source: https://news.abs-cbn.com/news/2024/2/21/12-000still-in-evacuation-centers-after-mindanao-floods-dswd-1735



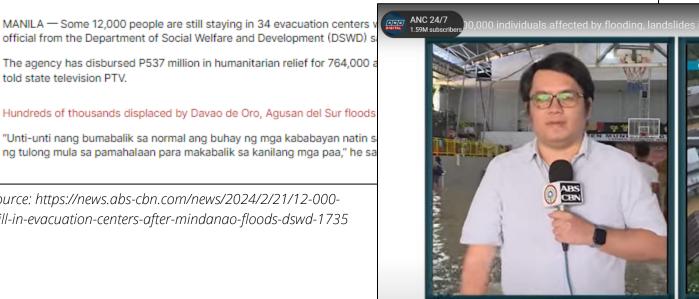








Flooding and rain-induced landslides





12 KILLED, 300,000 INDIVIDUALS AFFECTED

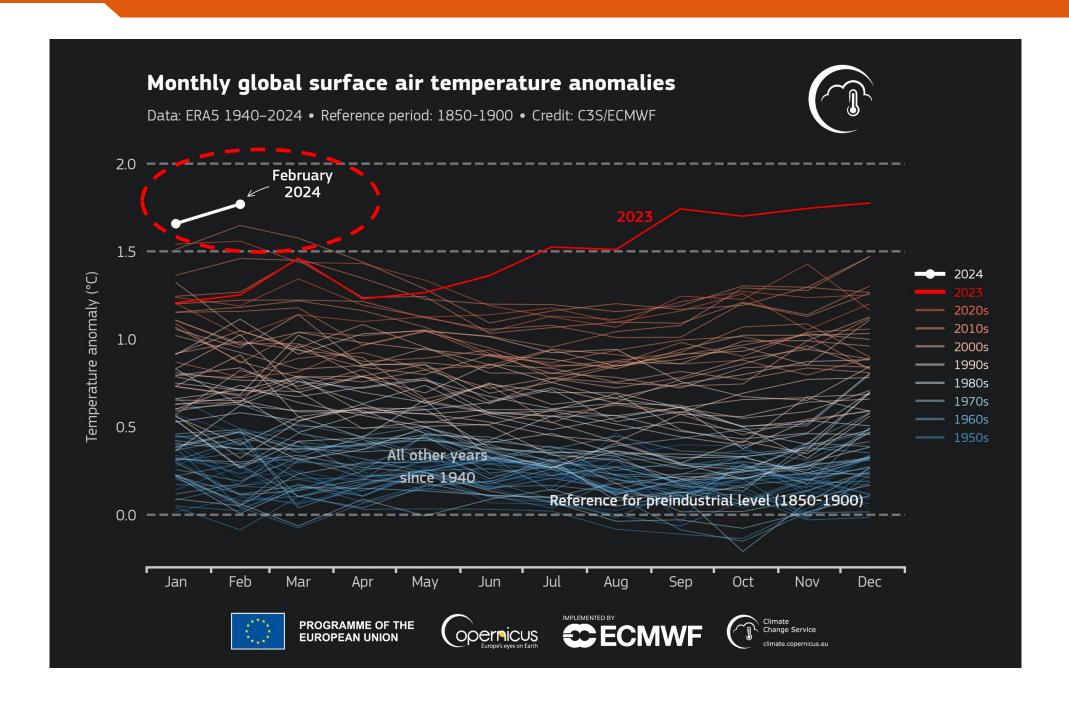
MORE VIDEOS FLOODING, LANDSLIDES IN DAVAO REGION

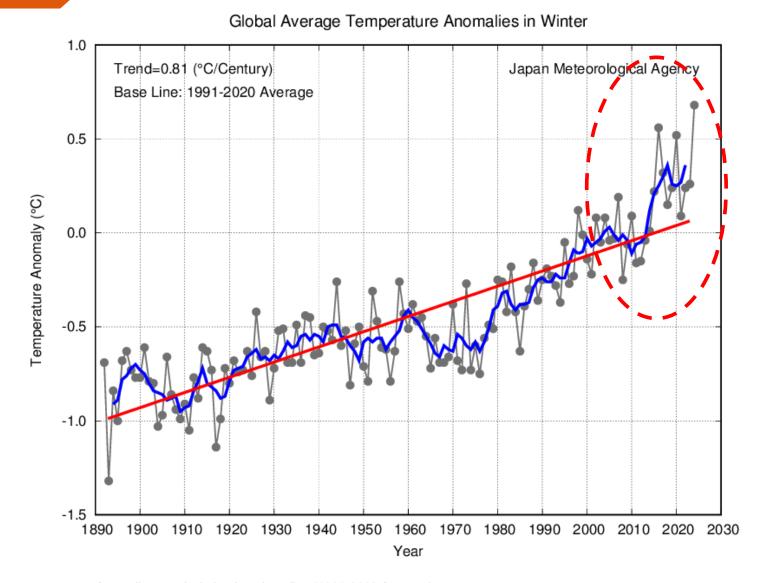
12:14 MNL GOULBOURN FOUNDATION'S 24/7, HOPELINE AT (+63 2) 804-HOPE (4673) / +63 917 558 HOPE

Source: https://youtu.be/ppwxUZaRVx8



Global Temperature Assessment for February 2024





Anomalies are deviation from baseline (1991-2020 Average).

The black thin line indicates surface temperature anomaly of each year

The blue line indicates their 5-year running mean.

The red line indicates the long-term linear trend.

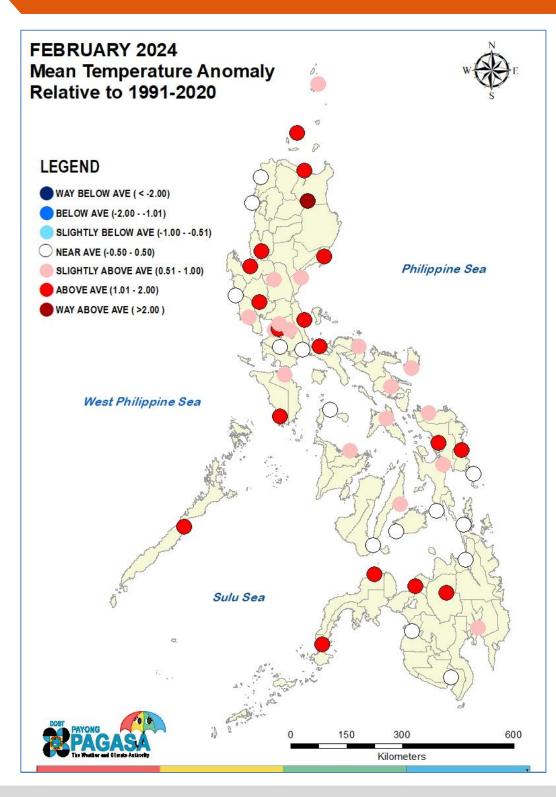


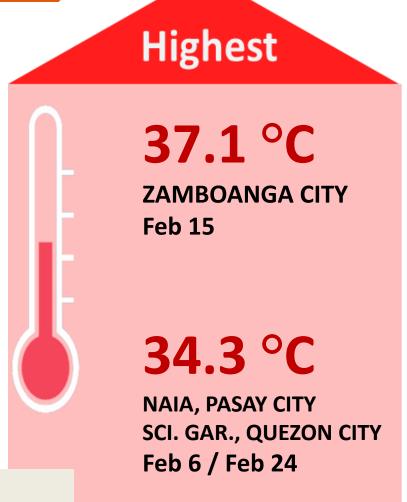


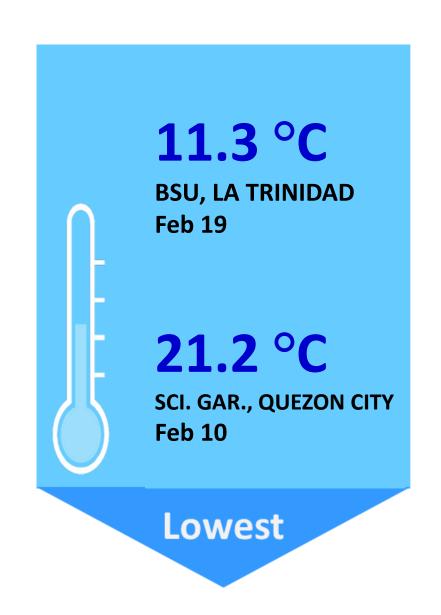
February 2024 is the hottest February according to global average surface air temperature data. (baseline: 1991-2020 average)

Temperature Assessment

February 2024







Tmean Normal:

- Science Garden **26.5**°C
- NAIA **27.1** °C

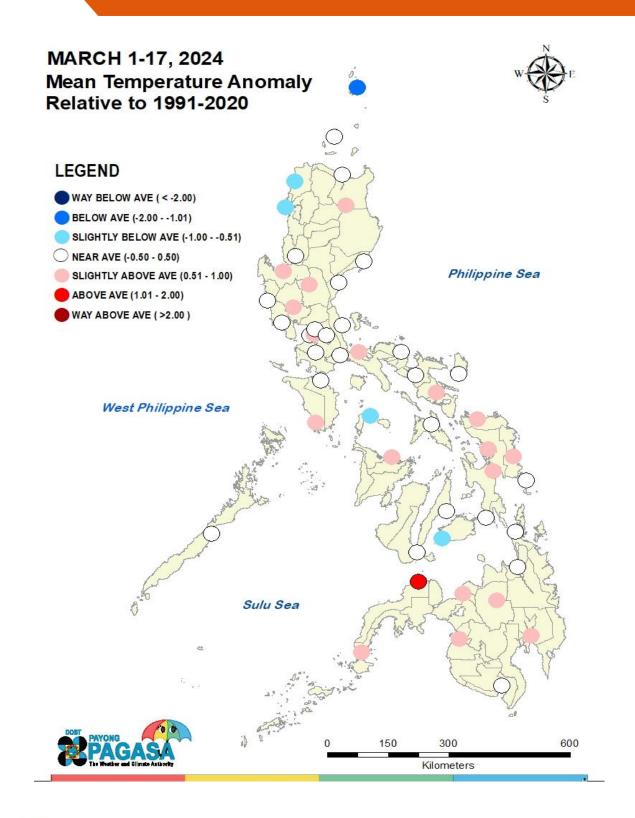
MAXIMUM TEMPERATURE (FEBRUARY 2024)				
Surpassed Record New Record Date Historical Date				
SAN JOSE, OCC. MINDORO	36.8	02-22-2024	36.7	02-27-2022
ZAMBOANGA CITY	37.1	02-15-2024	36.2	02-03-2016

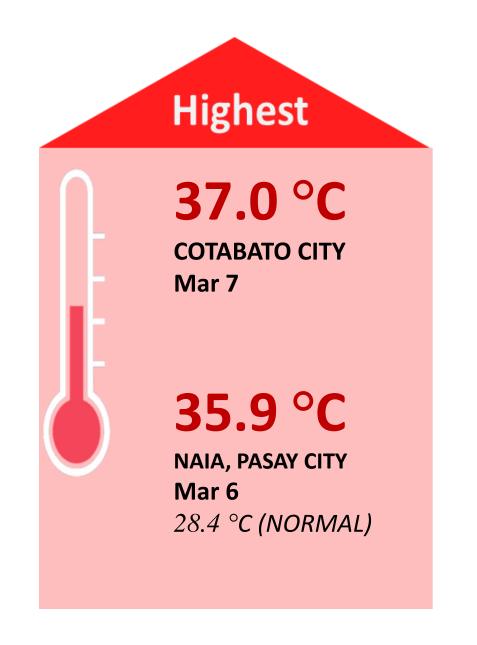
Near-average to way above-average mean surface air temperatures were observed in the country.

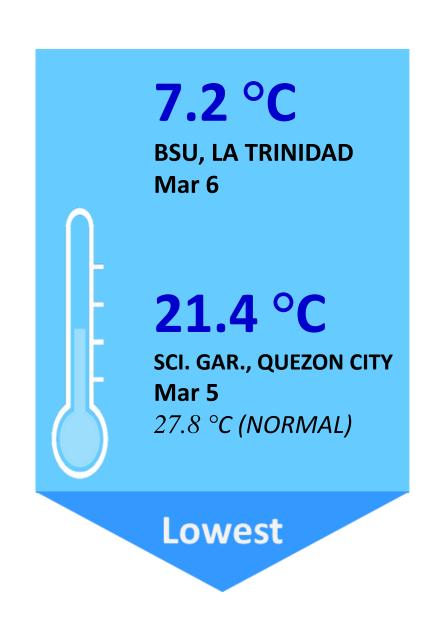
The Weather and Climate Authority

Temperature Assessment

March 1-17, 2024



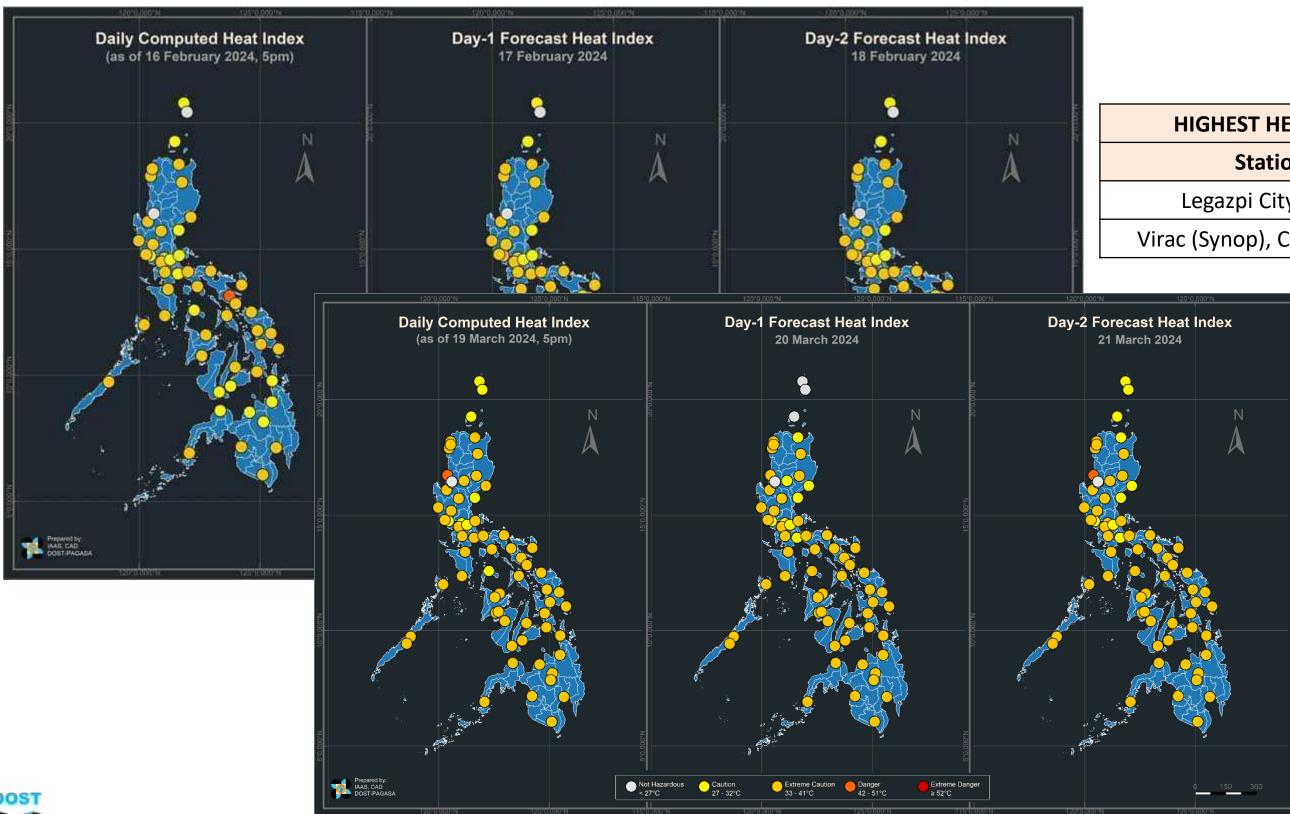




Below-average to slightly above-average mean surface air temperatures were observed in Luzon and Visayas; Near-average to above-average in Mindanao.

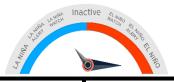


Highest Computed Heat Index



SUMMARY

ENSO Alert System Status



El Niño Advisory #9 / La Niña Watch

Rainfall

Temperature

February 2024

Most parts of the country generally received way below to below normal rainfall conditions except in some areas in Mindanao, where near to above normal rainfall conditions were observed.

Generally, near-average to warmer than average mean surface air temperatures were observed across the country.

March 1 - 17, 2024

Generally, way below normal rainfall conditions were experienced in most parts of the country.

- Below-average to slightly above-average mean surface air temperatures were observed in Luzon and Visayas
- Near- to above-average in Mindanao.







www.bagong.pagasa.dost.gov.ph



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@dost_pagasa



TRUNKLINE: (02) 8284- 0800

EXTENSIONS

TYPHOON: 4801

FLOOD: 4855

CLIMATE: 4920 or 4921

MEDIA: 4865





