



Regional Advisory No. 10, s. 2022
February 09, 2022

In compliance with DepEd Order (DO) No. 8, s. 2001,
this advisory is issued not for endorsement per DO 28, s. 2001,
but only for information of DepEd officials,
personnel/staff, as well as the concerned public.
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LA NIÑA ADVISORY FOR MINDANAO

Per Advisory No. 04 issued by the Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA)-Mindanao PAGASA Regional Services Division (MPRSD) on the 8th of February 2022, **La Niña continues to prevail over the Tropical Pacific. Most climate models combined with expert judgement suggest the likely persistence of La Niña until March-April-May (MAM) 2022 season (~60% chance), and the return to ENSO-neutral during April-May-June (AMJ) 2022 season.**

With this update, Division Offices shall have to issue advisories to schools to conduct appropriate preparedness and response measures against the impacts of La Niña and other accompanying weather disturbances from *February to July 2022*.

Division DRRM Coordinators are also expected to monitor the schools that were frequently flooded and/or have occurrence of landslides and provide technical support to reduce the effects of the weather disturbance to the education facilities, learning materials, computer sets, and other school properties.

Attached herewith is the copy of the PAGASA Advisory for ready reference of the concerned offices.

For immediate dissemination.

ESS/mpb
02/09/2022





Issued on 08 February 2022

LA NIÑA ADVISORY NO. 4 FOR MINDANAO

La Niña continues to prevail over the Tropical Pacific. Most climate models combined with expert judgement suggest the likely persistence of La Niña until March-April-May (MAM) 2022 season (~60% chance), and the return to ENSO-neutral during April-May-June (AMJ) 2022 season.ⁱ

Climate Assessment for January 2022

The weather systems that affected Mindanao during the month include *Intertropical Convergence Zone (ITCZ), Low Pressure Area (LPA), Trough of LPA, Shear Line, Northeast Monsoon, Easterlies* and *localized thunderstorms*. No tropical cyclone (TC) entered the Philippine Area of Responsibility (PAR) during the month. In total, MPRSD issued *twenty (20)* Heavy Rainfall Warnings due to the aforementioned weather systems (*Table 1*). Reported incidents due to heavy rains are shown in *Figure 1*.

Table 1. Heavy Rainfall Warnings issued by MPRSD Local Weather Forecasting Section for January 2022.

WEATHER SYSTEM	HEAVY RAINFALL WARNINGS		
	Yellow	Orange	Red
Shear Line	4	0	0
Northeast Monsoon	3	2	0
Trough of Low Pressure Area / Wind Convergence	4	0	0
Low Pressure Area	5	2	0
TOTAL	16	4	0

In comparison to the forecasted *near normal with patches of above normal rainfall* in Mindanao for January 2022, actual rainfall analysis showed that *below to near normal rainfall* were received in the region (*Figure 2 and Table 2*).

Based on the weather observations in Mindanao (*Table 2*), **Surigao** station recorded the *highest total monthly rainfall*. It documented an actual rainfall amount (i.e. **557.9mm**) near its climatological normal value (i.e. **609.4mm**) for January. Furthermore, **Surigao** also recorded the *greatest 24-hour rainfall* for the month, and the *highest number of wet days*. Meanwhile, **Zamboanga** station recorded the *lowest total monthly rainfall* and the *lowest number of wet days*. More analysis showed that mostly near normal with patches of below and above normal number of wet days were observed in Mindanao for the month of January (*Figure 3*).

Meanwhile, **Malaybalay** and **Zamboanga** stations exceeded their previous climatological extremes in terms of maximum temperature (*Table 3*).

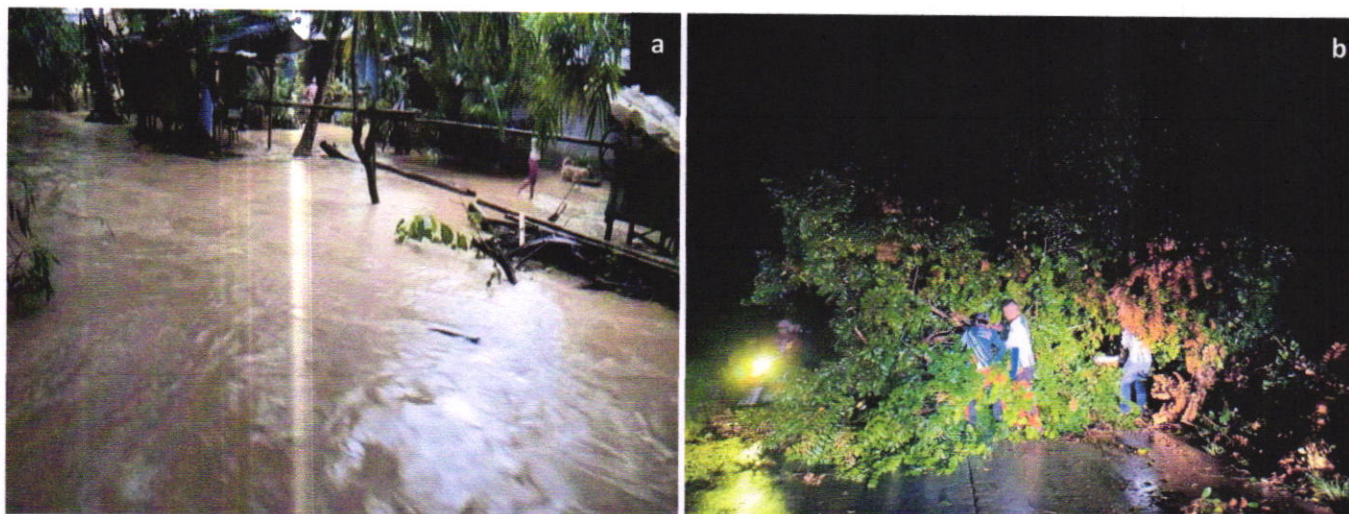


Figure 1. (a) Flooded community in Mawab, Davao de Oro on 16 January 2022 due to the Shear Line.ⁱ **(b)** Fallen trees in Santo Tomas, Davao del Norte on 17 January 2022 caused by heavy rains brought by the Shear Line.ⁱⁱ

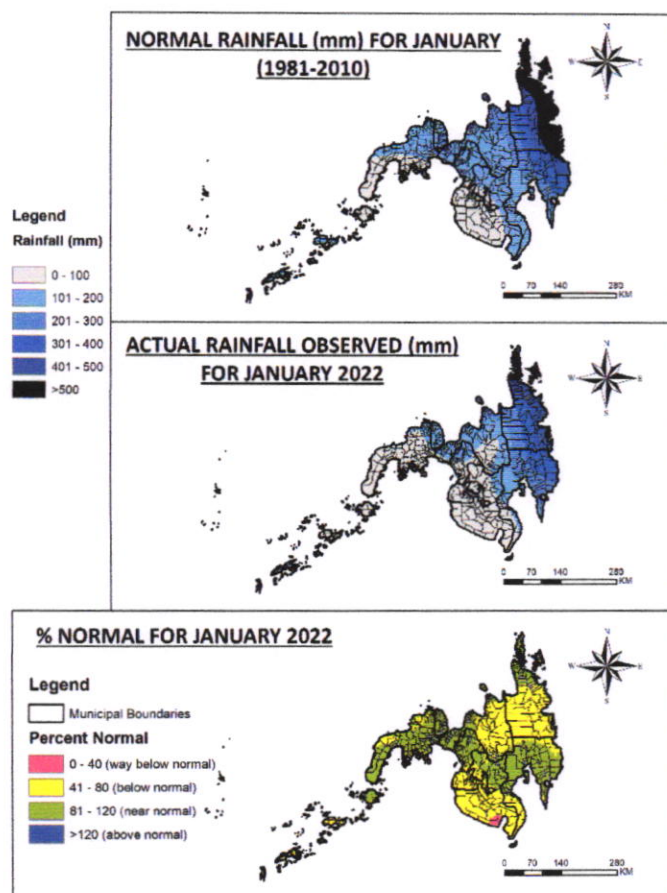


Figure 2. Actual Rainfall Observed (mm and %Normal) in Mindanao for January 2022.

ⁱ News: Jasmin Joy Evangelista of BULGAR Online / Photo: MDRRMO Mawab, Davao de Oro.

ⁱⁱ News/Photo: Official Facebook Account of the Municipal Government of Santo Tomas, Davao del Norte.

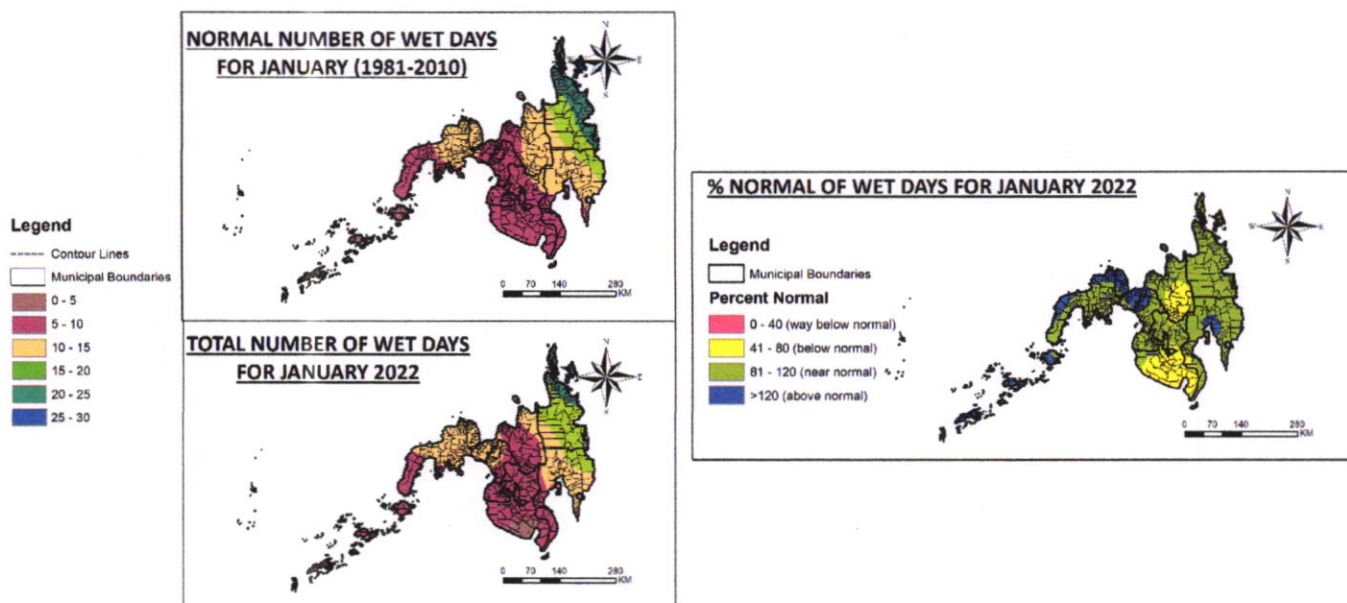


Figure 3. Actual Number of Wet Days (mm and %Normal) in Mindanao for January 2022.

Table 2. Monthly Rainfall Assessment in Mindanao for January 2022.ⁱⁱⁱ

STATION	RAINFALL								
	Total Monthly RR, mm	NORMAL Monthly RR, mm	QUANTATIVE CLASSIFICATION	QUALITATIVE CLASSIFICATION	Greatest Daily RR, mm	Date of Greatest Daily RR	EXTREME Greatest Daily RR, mm	EXTREME Date of Greatest Daily RR	No. of wet days
Malaybalay	60.3	142.5	42.3	BELOW NORMAL	24.6	16-Jan-2022	140.6	14-Jan-2014	8
Butuan	227.7	318.0	71.6	BELOW NORMAL	80.4	24-Jan-2022	271.6	4-Jan-1985	19
Surigao	557.9	609.4	91.5	NEAR NORMAL	140.6	1-Jan-2022	351.8	24-Jan-1963	21
Cotabato	59.7	88.4	67.5	BELOW NORMAL	18.2	27-Jan-2022	62.4	31-Jan-2004	8
Dipolog	96.8	129.2	74.9	BELOW NORMAL	36.2	13-Jan-2022	226.5	23-Jan-1984	16
Davao	90.7	140.3	64.6	BELOW NORMAL	40.0	13-Jan-2022	122.4	28-Jan-2000	8
Hinatuan	541.3	776.3	69.7	BELOW NORMAL	102.6	24-Jan-2022	374.0	10-Jan-1999	20
Zamboanga	57.1	49.7	114.9	NEAR NORMAL	18.4	25-Jan-2022	128.0	23-Jan-1916	5
Laguindingan	174.7	98.9	176.6	ABOVE NORMAL	89.9	25-Jan-2022	104.4	13-Jan-2009	7
Tagum	285.8	208.4	137.1	ABOVE NORMAL	88.1	13-Jan-2022			15
Bago Oshiro	171.5	137.4	124.8	ABOVE NORMAL	47.7	20-Jan-2022			11
Marawi	134.4	125.6	107.0	NEAR NORMAL	29.7	27-Jan-2022			13
Camiguin	324.0	333.2	97.2	NEAR NORMAL	73.6	1-Jan-2022			14
CMU Bukidnon	83.0	141.9	58.5	BELOW NORMAL	37.6	16-Jan-2022			6

ⁱⁱⁱ Red box in Table 2 indicate derived normal values.



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Mindanao PAGASA Regional Services Division (MPRSD)

Table 3. Monthly Temperature Assessment in Mindanao for January 2022.

STATION	MAXIMUM TEMPERATURE					MINIMUM TEMPERATURE				
	Highest Tmax, deg C	Date of Highest Tmax	EXTREME Highest Tmax, deg C	EXTREME Date of Highest Tmax	CLIMATOLOGICAL NORMALS, deg C (CY 1981-2010)	Lowest Tmin, deg C	Date Lowest Tmin	EXTREME Lowest Tmin, deg C	EXTREME Date Lowest Tmin	CLIMATOLOGICAL NORMALS, deg C (CY 1981-2010)
Malaybalay	34.0	8-Jan-2022	34.0	23-Jan-1988	29.0	15.8	20-Jan-2022	11.7	16-Jan-1956	17.9
Butuan	34.7	29-Jan-2022	35.4	16-Jan-1998	30.2	21.2	20-Jan-2022	18.3	4-Jan-1991	22.5
Surigao	32.2	30-Jan-2022	33.7	15-Jan-1916	29.4	22.2	13-Jan-2022	18.6	2-Jan-1978	23.3
Cotabato	36.6	12-Jan-2022	36.8	31-Jan-2020	32.7	22.2	3-Jan-2022	18.9	26-Jan-2014	22.9
Dipolog	33.2	11-Jan-2022	35.7	28-Jan-2020	30.2	22.4	7-Jan-2022	18.4	12-Jan-1971	22.8
Davao	34.7	12-Jan-2022	35.0	15-Jan-1973	30.8	22.8	13-Jan-2022	17.0	10-Jan-1912	23.3
				22-Jan-2016						
Hinatuan	32.2	26-Jan-2022	35.2	3-Jan-2019	29.7	21.5	7-Jan-2022	17.2	21-Jan-1965	23.0
General Santos	34.6	12-Jan-2022	37.5	24-Jan-1988	32.8	22.0	11-Jan-2022	17.1	24-Jan-1965	22.5
Zamboanga	36.0	3-Jan-2022	35.8	29-Jan-2016	32.3	21.2	21-Jan-2022	15.8	22-Jan-1965	23.5
Laguindingan	30.0	30-Jan-2022	36.2	8-Jan-2016	29.6	23.0	27-Jan-2022	16.1	3-Jan-1991	21.6
Tagum	33.4	30-Jan-2022				21.5	19-Jan-2022			
Bago Oshiro	34.0	12-Jan-2022				20.5	20-Jan-2022			
Marawi	29.0	9-Jan-2022				12.3	17-Jan-2022			
Camiguin						22.4	1-Jan-2022			
CMU Bukidnon	33.3	30-Jan-2022				19.1	28-Jan-2022			



Seasonal Climate Outlook for February to July 2022

Weather systems that will likely affect Mindanao during the period include *Tropical Cyclones, Low Pressure Areas (LPAs), Intertropical Convergence Zone (ITCZ), Easterlies, Northeast Monsoon, Tail-End of the Frontal System (TEFS), localized thunderstorms, and Southwest Monsoon (in transition up to mid-May).*

PAGASA monthly deterministic forecasts from computer models suggest that most areas in the region will likely to receive *near to above normal rainfall from February until March 2022 (Figure 4a), and mostly near normal rainfall from April to July 2022 (Figure 4b).*ⁱⁱ In comparison to selected international climate forecasts^{iii iv}, majority of the models suggest the likelihood of *near to above normal rainfall conditions from February to April 2022, and near normal rainfall conditions in most areas from May to July 2022, with patches of below normal rainfall during the last month of the forecast period.* These international climate forecasts also show that *near to above normal rainfall* is likely for *FMA and MAM seasons* and *near normal rainfall* for *AMJ and MJJ seasons*. On the other hand, official rainfall probabilistic forecasts show that there is approximately 40% to 55% chance of *above normal rainfall* conditions in most areas of the region from *February to April 2022*, and higher probability for *near normal rainfall conditions* from *May to July 2022*.^v Comparatively, most of the international climate models^{vi} and multi-model ensembles (MMEs)^{vii viii ix} show 40% to 60% probability of *above normal rainfall* conditions in most areas of the region from *February to April 2022*. Meanwhile, the likelihood of *near normal rainfall* is highly likely in most areas in Mindanao from *May to July 2022*. Model outputs also illustrate 40% to 50% likelihood of *below normal rainfall* conditions in the Zamboanga Peninsula during the months of *June and July 2022*, as well as the *MJJ season*.

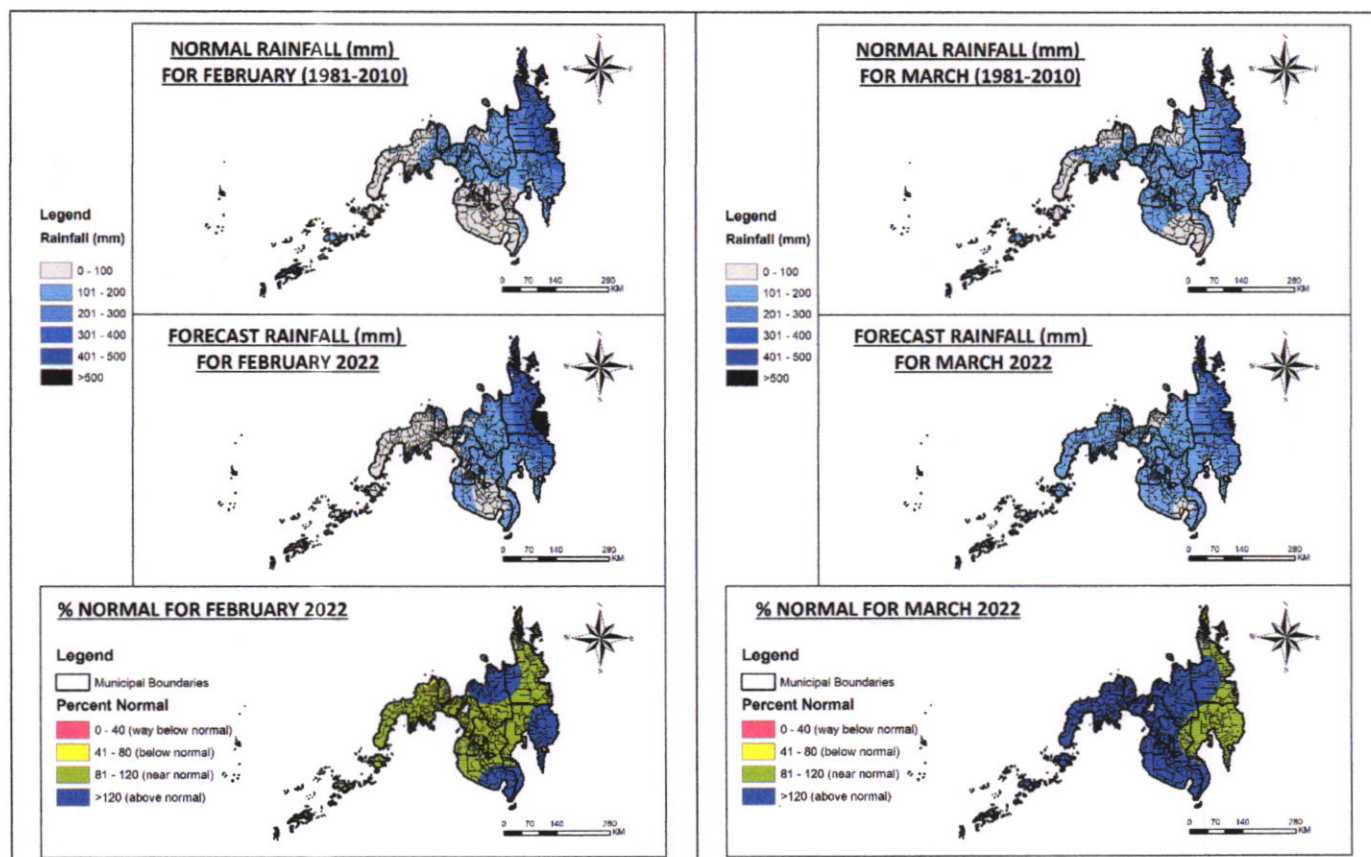


Figure 4a. Forecast Rainfall (mm and %Normal) in Mindanao for February to March 2022.

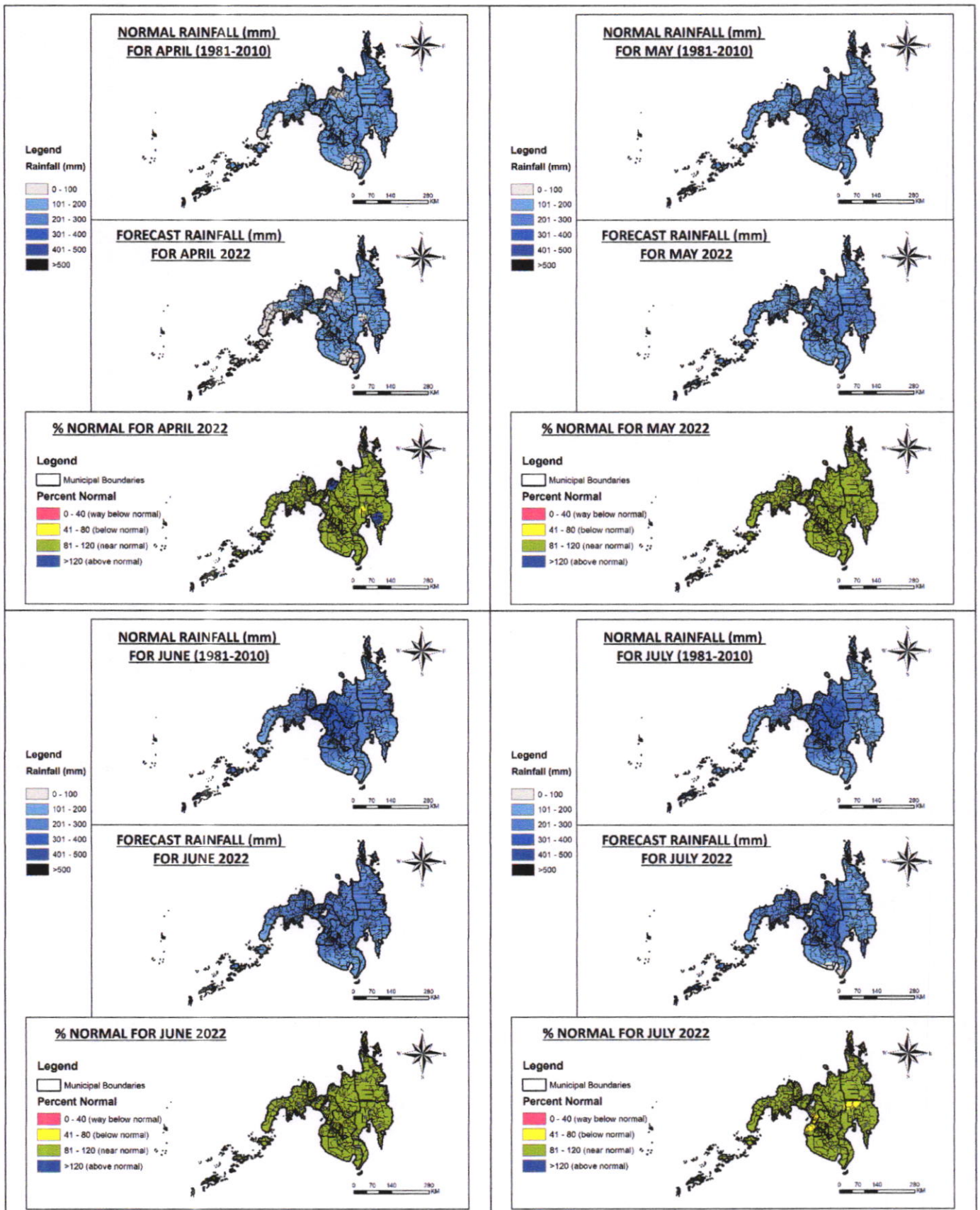


Figure 4b. Forecast Rainfall (mm and %Normal) in Mindanao for April to July 2022.

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Table 4. Observed Rainfall in Percent of Normal (Aug 2021 – Jan 2022) and
 Forecast Rainfall in Percent of Normal (Feb 2022 – Jul 2022).

PROVINCE	OBSERVED RAINFALL (%NORMAL)						FORECAST RAINFALL (%NORMAL)					
	AUG '21	SEP '21	OCT '21	NOV '21	DEC '21	JAN '22	FEB '22	MAR '22	APR '22	MAY '22	JUN '22	JUL '22
REGION IX (ZAMBOANGA PENINSULA)												
ZAMBOANGA DEL NORTE	77.6	126.3	108.3	159.6	89.9	81.4	91.1	127.9	109.0	102.6	101.3	93.1
ZAMBOANGA DEL SUR	80.9	135.2	110.8	136.2	90.5	87.2	97.2	133.3	109.2	101.2	102.2	91.3
ZAMBOANGA SIBUGAY	65.6	123.9	110.4	126.9	75.4	82.7	98.4	133.4	108.5	101.2	102.0	92.1
REGION X (NORTHERN MINDANAO)												
BUKIDNON	88.0	173.9	92.4	156.6	151.3	67.6	118.8	126.1	99.7	102.5	95.1	88.5
CAMIGUIN	95.8	108.7	150.1	97.4	215.1	93.6	119.7	124.9	107.5	104.9	111.5	98.8
LANAO DEL NORTE	113.5	174.8	115.3	146.3	144.1	92.2	108.3	130.2	113.4	101.7	101.3	89.2
MISAMIS OCCIDENTAL	105.1	152.2	111.2	166.1	135.1	87.2	93.8	126.1	110.5	103.3	101.5	93.6
MISAMIS ORIENTAL	105.9	118.7	125.7	136.5	214.3	78.2	124.7	127.6	114.2	105.0	103.7	97.7
REGION XI (DAVAO REGION)												
DAVAO DE ORO	93.4	112.6	113.5	132.0	82.1	87.6	124.9	115.6	111.8	101.7	99.2	90.7
DAVAO CITY	91.4	140.6	131.5	134.3	68.1	85.2	102.5	107.1	92.8	99.0	92.7	96.2
DAVAO DEL NORTE	83.1	136.8	109.7	150.9	87.6	94.6	113.1	113.9	90.3	101.7	94.8	86.2
DAVAO DEL SUR	99.4	126.0	131.5	134.3	65.5	85.2	111.3	115.3	109.1	96.0	95.2	110.4
DAVAO OCCIDENTAL	99.5	115.8	131.5	134.3	81.8	85.2	124.0	125.9	107.8	96.3	99.9	106.1
DAVAO ORIENTAL	101.6	108.0	117.3	110.6	74.4	82.3	124.3	115.7	112.1	100.6	101.4	102.5
REGION XII (SOCCSKSARGEN)												
SOUTH COTABATO	80.3	107.9	100.7	136.9	86.3	52.3	122.4	132.0	109.9	95.4	99.7	97.5
NORTH COTABATO	77.9	150.6	116.0	124.6	86.6	84.9	106.5	123.2	105.2	96.4	94.1	89.1
SARANGANI	89.9	109.7	100.8	127.5	91.7	52.5	126.8	131.9	109.1	95.8	101.0	99.2
SULTAN KUDARAT	66.0	105.1	108.8	136.0	83.3	62.6	112.5	131.3	108.8	95.2	99.2	90.5
REGION XIII (CARAGA)												
AGUSAN DEL NORTE	182.8	126.0	134.4	135.9	208.7	75.3	120.0	122.6	112.6	102.0	109.3	94.7
AGUSAN DEL SUR	131.0	137.2	132.2	135.5	160.2	71.2	119.2	121.7	105.7	102.0	101.7	87.6
DINAGAT ISLANDS	136.8	160.3	188.5	117.9	165.9	89.7	115.0	108.0	101.5	100.2	114.0	80.4
SURIGAO DEL NORTE	143.0	144.6	209.7	105.8	182.8	86.2	115.7	112.6	100.1	100.0	115.4	85.0
SURIGAO DEL SUR	151.8	131.2	141.6	132.5	166.7	75.2	117.4	118.3	106.5	100.6	107.8	88.3
BARMM												
BASILAN	56.3	118.7	106.8	118.2	76.6	85.4	108.1	142.5	107.9	101.5	103.9	92.1
MAGUINDANAO	60.5	120.9	112.2	111.8	85.9	70.7	106.3	133.6	100.9	94.2	98.2	82.7
LANAO DEL SUR	109.5	188.2	106.9	137.7	133.4	89.6	110.9	131.2	109.8	99.6	98.5	85.0
SULU	73.3	121.4	110.5	130.9	94.6	66.3	101.2	129.7	110.0	101.7	101.7	92.1
TAWI-TAWI	74.6	112.7	110.4	130.8	103.7	59.5	93.5	117.3	107.7	102.0	102.0	92.7

Legend:

	way below normal
	below normal
	near normal
	above normal

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Moreover, dry days ^{iv} forecast for Mindanao is shown in *Table 5*. Temperature forecast on the other hand, * indicates that Mindanao will likely experience near to warmer than average surface temperatures for *February to July 2022*.

Table 5. Forecast Dry Days in Mindanao for February to July 2022 per province.

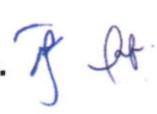
PROVINCE	FORECAST					
	FEB 2022	MAR 2022	APR 2022	MAY 2022	JUN 2022	JUL 2022
REGION IX (ZAMBOANGA PENINSULA)						
ZAMBOANGA DEL NORTE	20	22	23	21	15	19
ZAMBOANGA DEL SUR	20	21	22	21	14	18
ZAMBOANGA SIBUGAY	20	21	22	21	15	18
REGION X (NORTHERN MINDANAO)						
BUKIDNON	17	20	21	15	10	12
CAMIGUIN	18	24	25	24	17	18
LANAO DEL NORTE	19	23	23	20	13	15
MISAMIS OCCIDENTAL	19	23	23	21	14	17
MISAMIS ORIENTAL	18	23	24	21	15	16
REGION XI (DAVAO REGION)						
COMPOSTELA VALLEY/ DAVAO DE ORO	14	18	19	19	17	18
DAVAO CITY	20	20	20	13	13	14
DAVAO DEL NORTE	17	19	20	16	14	15
DAVAO DEL SUR	21	22	21	16	15	16
DAVAO OCCIDENTAL	21	25	25	23	20	22
DAVAO ORIENTAL	14	18	19	20	19	21
REGION XII (SOCCSKSARGEN)						
SOUTH COTABATO	20	23	23	21	17	19
NORTH COTABATO	19	20	20	14	11	12
SARANGANI	20	25	25	24	19	21
SULTAN KUDARAT	20	20	22	18	14	16
REGION XIII (CARAGA)						
AGUSAN DEL NORTE	13	17	18	21	17	19
AGUSAN DEL SUR	12	15	17	17	14	17
DINAGAT ISLANDS	8	13	16	22	17	20
SURIGAO DEL NORTE	8	12	15	21	17	21
SURIGAO DEL SUR	7	12	14	18	17	20
BARMM						
BASILAN	22	22	24	25	19	20
MAGUINDANAO	19	19	20	16	12	14
LANAO DEL SUR	18	21	23	17	11	13
SULU	23	22	25	26	21	23
TAWI-TAWI	24	22	23	26	21	23

^{iv} Dry day refers to a day with **less than 1 mm of rain (being issued February - April)**.



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With this development, MPRSD will continue to closely monitor the ongoing La Niña, which could influence development of extreme weather conditions that can adversely affect Mindanao islands. Updates shall be issued as appropriate. All concerned Government Units and institutions including non-government organizations and the public are advised to take appropriate actions concerning this current climate condition and keep monitoring for updates. For further information, please contact the Mindanao PAGASA Regional Services Division (MPRSD) at (088) 555-0485 or the Climatology and Agrometeorology Division (CAD) at (02) 8284-0800 local 906.


ANTHONY JOSEPH R. LUCERO, M.Sc. 
Weather Services Chief
Mindanao PAGASA Regional Services Division

- ⁱ Climate Outlook (February – June 2022) during the 144th National Climate Forum by PAGASA CAD-CLIMPS on 26Jan2022.
- ⁱⁱ Rainfall Forecast and % Normal Maps for Mindanao for February to July 2022, provided by PAGASA CAD-CLIMPS.
- ⁱⁱⁱ National Weather Service (NWS) Climate Prediction Center (CPC) / National Oceanic and Atmospheric Administration (NOAA). Seasonal climate forecast from CFSv2 for Feb to Oct 2022, updated 07 February 2022.
- ^{iv} APEC Climate Center (APCC) Deterministic Multi-model Ensemble (MME) Forecasts, issued on 20 January 2022.
- ^v Climate Outlook (February – June 2022) during the 144th National Climate Forum by PAGASA CAD-CLIMPS on 26Jan2022.
- ^{vi} UK Met Office. Global long-range model probability maps for FMA 2022, MAM 2022 and AMJ 2022 issued January 2022.
- ^{vii} APEC Climate Center (APCC) Probabilistic Multi-model Ensemble (MME) Forecasts, issued on 20 January 2022.
- ^{viii} World Meteorological Organization (WMO) Lead Centre for Long-Range Forecast (LRF) Multi-Model Ensemble (MME) for February to July 2022, issued on January 2022.
- ^{ix} International Research Institute for Climate and Society. IRI Multi-Model Probability Forecast for Precipitation for FMA 2022, MAM 2022, AMJ 2022 and MJJ 2022 issued January 2022.
- ^x Forecast Monthly Mean Temperature Anomaly for February to July 2022, relative to 1981-2010 climatological normal, issued by PAGASA CAD-CLIMPS.