World Food Programme

Seasonal Monitor

ASIA-PACIFIC, FEBRUARY 2023

REGIONAL BUREAU FOR ASIA AND THE PACIFIC

Note: Countries in the region have been classified into three zones according their geographical location (latitude, longitude) and climate (rainfall and temperature). This classification do not correspond to any official subregions or categories

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1. Climate Overview

Summary

Hazards

In February 2023, heavy rains caused floods in Fiji, Indonesia, Philippines and Sri Lanka. In Fiji, 350 people were displaced. In Indonesia, over 43,000 people in Java, Aceh, Baten, west Kalimantan, and north Sumatra were affected. In the Philippines, over 90,000 people were affected across 22 provinces in 8 regions. In Sri Lanka, 578 people were affected and 157 houses were damaged in western and central parts.

Extreme cold continued in Afghanistan with 20 houses and 600 acres of farmlands in Badakhshan province damaged. In eastern Tajikistan, 20 people died from extreme cold in February and hundreds of households were displaced.

November 2022-February 2023 Rainfall

Drier than average condition continued in Afghanistan, Pakistan, Tajikistan and Kyrgyz Republic. Growing of winter barley and wheat crops remained under mixed weather conditions in these countries.

There was slight to moderate rainfall in major parts of the Philippines and Sri Lanka. Growing of dry season rice is ongoing under favorable weather condition, except flood-affected areas.

Wetter than average rainfall was observed across Fiji, Indonesia, Papua New Guinea, Solomon Islands, Timor-Leste, and Vanuatu.

Short Term Forecast (1-10 March 2023)

Below-average rainfall conditions are forecast for Afghanistan, southern and eastern Kyrgyz Republic, northern and western Pakistan, Tajikistan, and major parts of Bangladesh, Bhutan, Cambodia, DPR Korea, northern India, Lao PDR, Nepal, and northern Myanmar.

Wetter than average conditions are forecast in eastern India, central and southern Myanmar, central and southern Philippines, southern Sri Lanka, Fiji, eastern Papua New Guinea, Solomon Islands, and Vanuatu.

In Vanuatu, Tropical Cyclones Judy and Kevin (1-5 March) caused floods across the country; 250,000 people (more than 80 percent of the population) were affected.

Seasonal Outlook (March-May 2023)

Higher than normal rainfall is likely in Fiji, Papua of Indonesia, Philippines, southern Papua New Guinea, and Vanuatu.

Drier conditions are projected in some parts of Indonesia (Java, central Kalimantan, Sulawesi, western Sumatra), Kiribati, western Kyrgyz Republic, western Tajikistan, and Tuvalu.

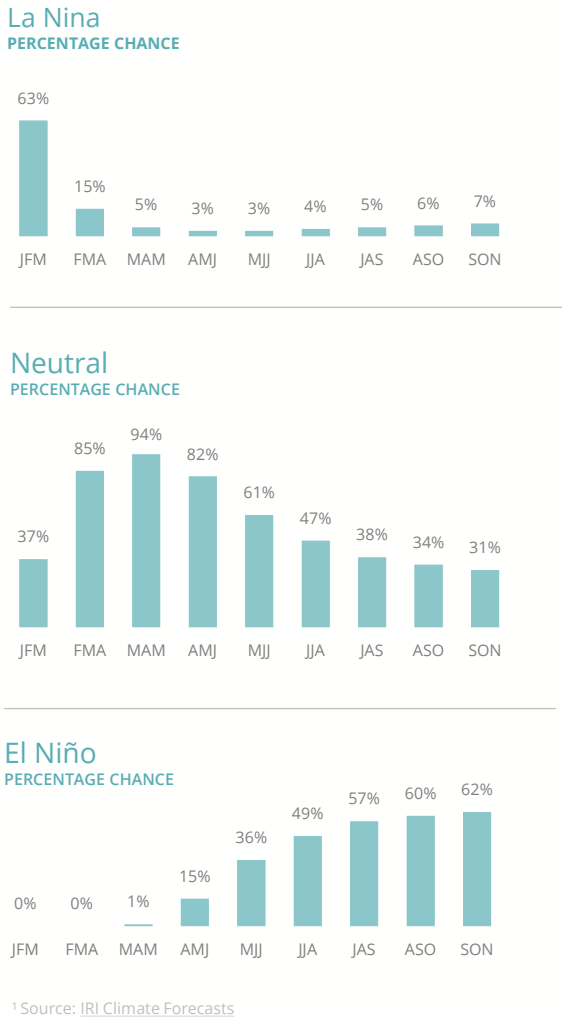
La Niña Outlook

ENSO-neutral is anticipated during spring and early summer or March-May 2023 (94 percent possibility). There are increasing changes of El Niño during July-September 2023 (57 percent possibility) (Figure 1)[1].

There is an increased chance of below-average rainfall during March-May 2023 in some parts of Indonesia (Java, central Kalimantan, Sulawesi, western Sumatra), Kiribati, western Kyrgyz Republic, western Tajikistan, and Tuvalu. During the forecast period, rainfall is likely to be above average (>70 percent possibility of exceeding median rainfall) in Fiji, Papua of Indonesia, Philippines, southern Papua New Guinea, and Vanuatu. Rainfall is likely to be near the normal condition across Afghanistan, Pakistan, major parts of Kyrgyz Republic and Tajikistan, Bangladesh, Bhutan, DPRK, India, Nepal, and Sri Lanka [2].

In February 2023, below average sea surface temperatures continued to weaken across the equatorial Pacific Ocean – ranging from +0.1°C to -0.5°C – indicating persistent weak La Niña conditions in the tropical Pacific.[3]

FIGURE 1: IRI/CPC PROBABILISTIC ENSO OUTLOOK (RELEASED 9 FEBRUARY 2023)



[1] Source: IRI Climate Forecasts

Zone 1

Afghanistan

Kyrgyz Republic

Pakistan

Tajikistan

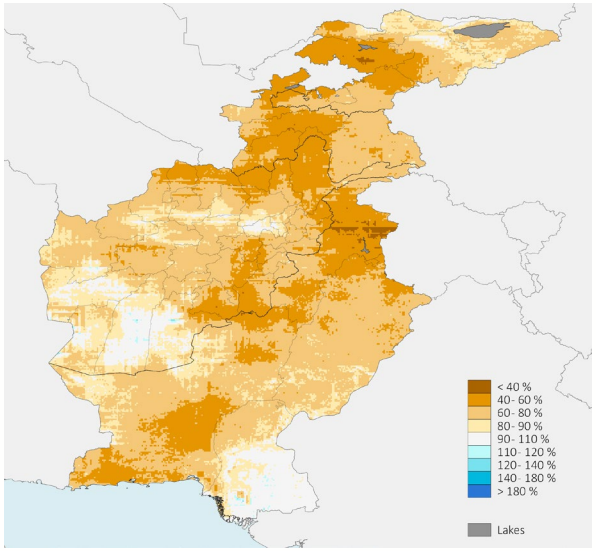
Zone 1: Rainfall Performance

Drier-than-average conditions were experienced in most of Zone 1

RAINFALL AS A PERCENT OF AVERAGE, NOVEMBER 2022-FEBRUARY 2023

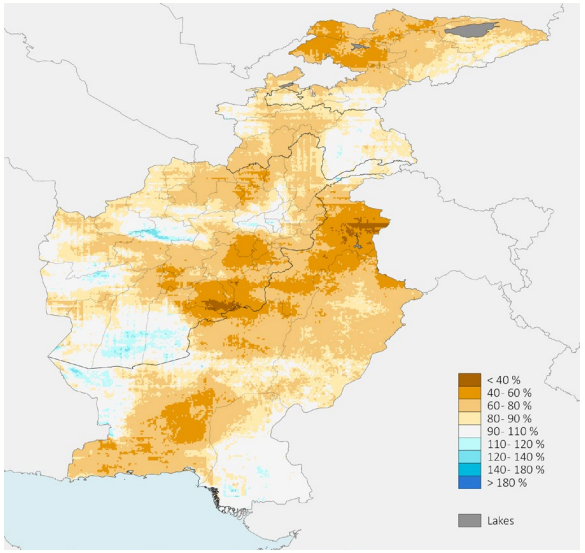
MAP 1: LAST THREE MONTHS

20 NOV 2022 — 20 FEB 2023



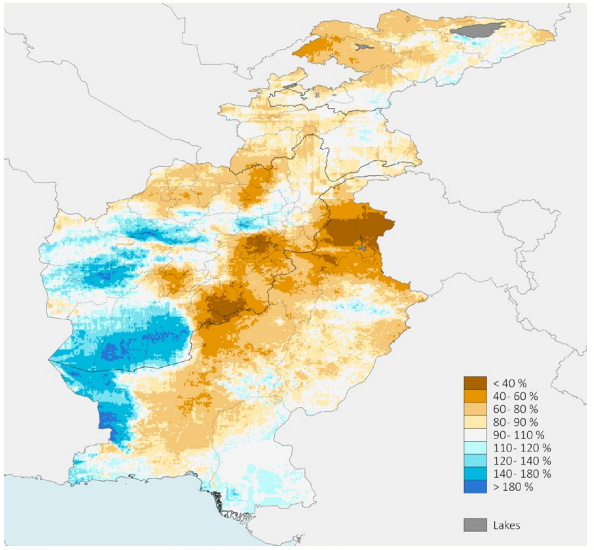
MAP 2: LAST MONTH

20 JAN 2023 - 20 FEB 2023



MAP 3: LAST TEN DAYS

11-20 Feb 2023



Between **November 2022-February 2023**, drier than average conditions were observed in major parts of Zone 1 with less than 50 mm of average monthly rainfall across Kyrgyz Republic and Pakistan (Map 1).

In the last month, **20 January-20 February 2023**, drier than average conditions continued in major parts of Kyrgyz Republic and Pakistan, but light rainfall (40-120 mm of average monthly rainfall) was observed across Afghanistan, Kyrgyz Republic, northern Pakistan, and Tajikistan (Map 2). In the last ten-day rainfall period, **11-20 February 2023**, light rainfall (10-50 mm) was observed in major parts of Afghanistan, western and southern Kyrgyz Republic, northern Pakistan, and Tajikistan (Map 3).

In **Afghanistan**, heavy rains in early February 2023 caused avalanches and flash floods in the north; 20 houses and 600 acres of farmlands in Badakhshan province were damaged[4]. In **Pakistan**, floodwater remained in many flooded areas across the country. As of February 2023, an estimated 4.5 million people remained exposed to or living close to flooded areas[5]. About 89,000 people in Sindh province and 116,000 people in Balochistan province remain displaced from their homes[6]. In **Tajikistan**, as of 16 February 2023, avalanches caused by heavy snow killed 20 people and displaced hundreds of households in eastern Tajikistan, particularly in Gorno-Badakhshan autonomous region[7].

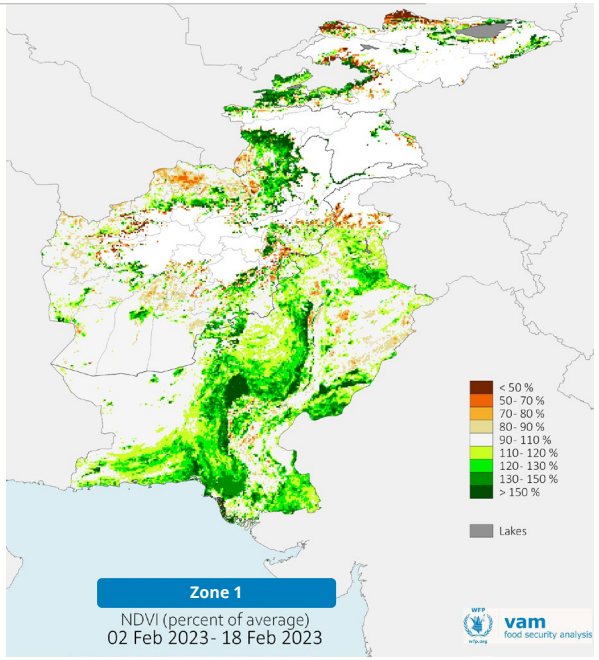
Zone 1: Rainfall Vegetation and Crop Conditions

An above-average vegetation index for 2-18 February 2023 in some parts of eastern and northern Afghanistan, southwestern Kyrgyz Republic, major parts of Pakistan (except flood-affected areas), and southwestern Tajikistan is largely the result of heavy monsoon rainfall during June-September 2022.

In contrast, below-average vegetation continued in some parts of western and central Afghanistan, northern Kyrgyz Republic, and northern Pakistan due to below-average rainfall (Map 4).

This zone had an above-average vegetation index in recent weeks

MAP 4: **NORMALIZED DIFFERENCE VEGETATION INDEX (NDVI), 2-18 FEBRUARY 2023**



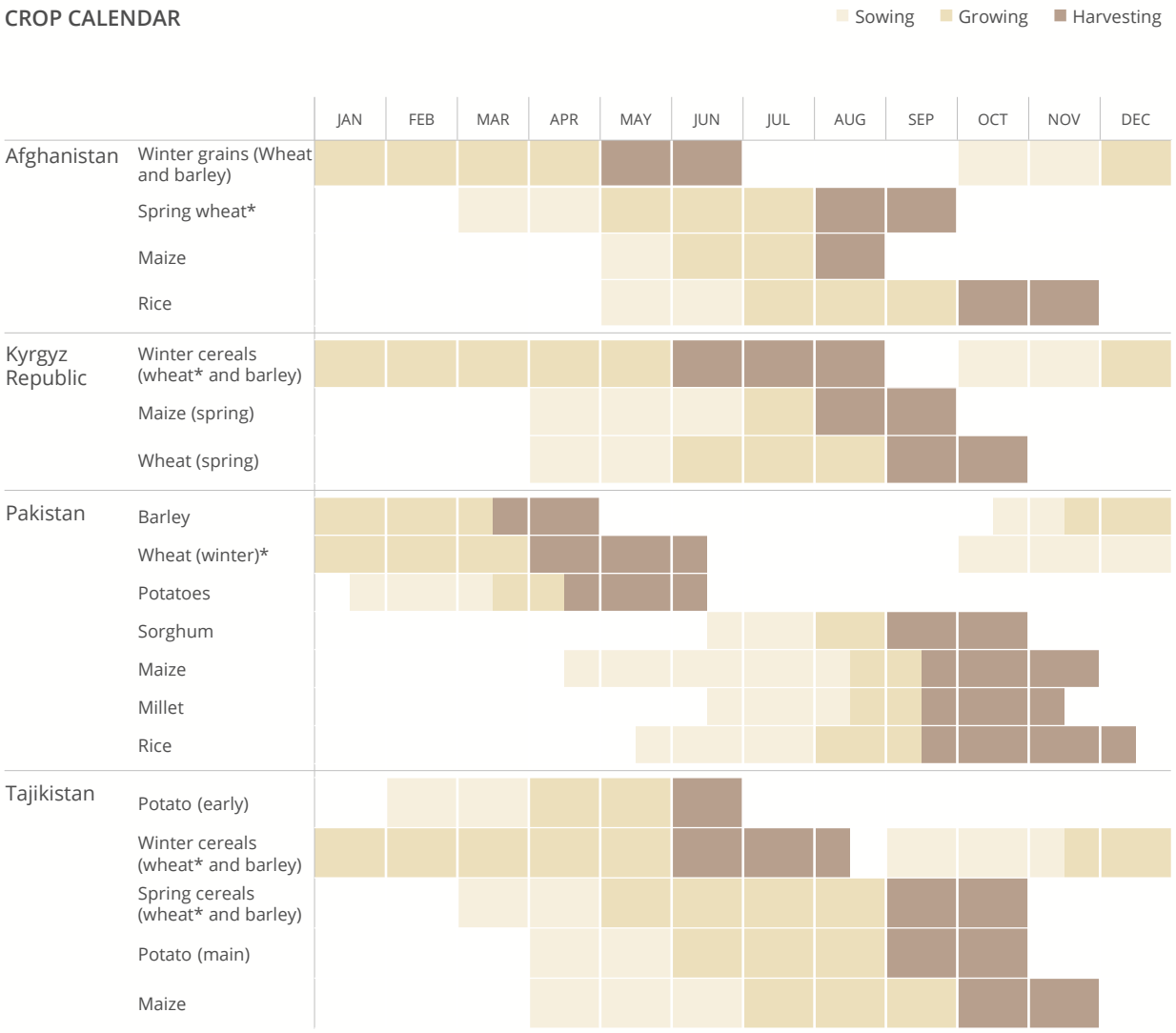
In **Afghanistan**, the growing of winter wheat and barley continued in February 2023 under mixed weather conditions (except snowfall-affected areas), while some parts of north-western, northern and southern regions experienced below-average rainfall between October 2022-February 2023 and below-average snow water volume[8].

In **Kyrgyz Republic**, the growing of winter wheat and barley crops continued in February 2023 under mixed weather conditions. As of 8 February 2023, the output of barley (450 thousand tons) is expected at 6.8 percent higher than the five-year average level due to large plantings, while the output of wheat is expected at a near-average level of 570 thousand tons[9].

In **Pakistan**, the growing of 2023 winter wheat and barley in February continued under mixed weather conditions, while some southwestern parts (Sindh and Balochistan) experienced below-average rainfall[10]. The output of 2022/23 wheat (26.4 million tons) is expected to decrease by 4 percent from last year due to the long impacts of extensive flooding from June to October 2022[11].

In **Tajikistan**, the growing of winter wheat and barley continued in February 2023 under mixed weather conditions. The outputs of wheat and barley are forecast at a near-average level of 820 thousand tons and 135 thousand tons[12].

CROP CALENDAR

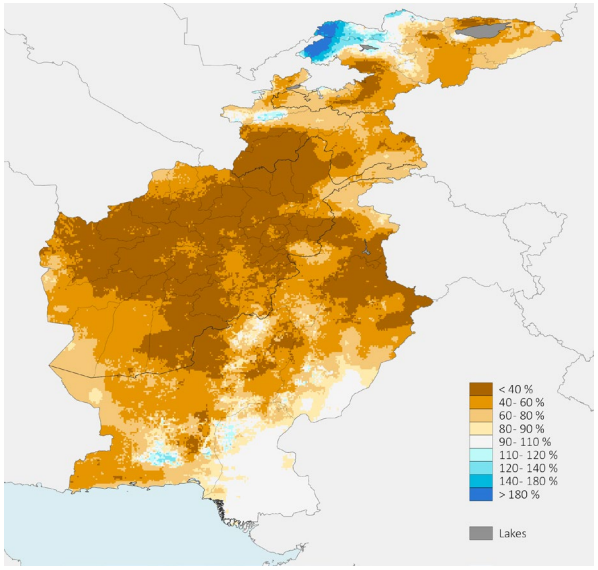


Source: FAO/GIEWS, FEWSNET. Periods are rounded to half-months.

Zone 1: Climate Outlook, March to May 2023

Below-average rainfall is expected in this zone in the short-term

MAP 5: SHORT-TERM RAINFALL FORECAST AS A PERCENT OF AVERAGE, 1-10 MARCH 2023

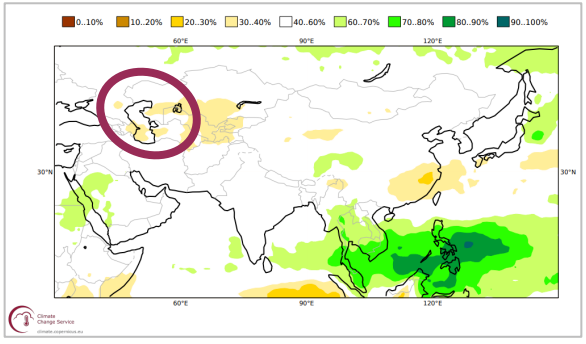


The short-term forecast for 1-10 March 2023 (Map 5) shows below-average rainfall in Afghanistan, southern and eastern Kyrgyz Republic, northern and western Pakistan, and Tajikistan. In contrast, it shows higher than average rainfall in western Kyrgyz Republic and some parts of southern Pakistan.

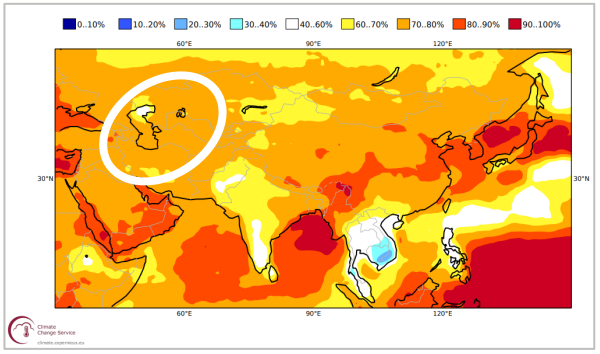
Rainfall during March-May 2023 (Map 6) is likely to be near average across Afghanistan and Pakistan. In contrast, below average (30-40 percent possibility of exceeding the median rainfall) is likely in some parts of western Kyrgyz Republic and western Tajikistan.

During the forecast period, air temperature is likely to be above normal conditions across Western Asia Subregion (Map 7).

MAP 6. LONG TERM RAINFALL FORECAST MAR-MAY 2023, PRECIPITATION > MEDIAN, %.



MAP 7. LONG TERM TEMPERATURE FORECAST MAR-MAY 2023, 2m TEMPERATURE > MEDIAN, %



Map 6: C3S multi-system seasonal forecast probability (precipitation > median), nominal forecast, ECMWF/Met Office/Meteo-France/CMCC/DWD/NCEP/JMA/ECCC MAM 2023
Map 7: C3S multi-system seasonal forecast probability (2m temperature > median), nominal forecast, ECMWF/Met Office/Meteo-France/CMCC/DWD/NCEP/JMA/ECCC MAM 2023

Zone 2

Bangladesh

Bhutan

Cambodia

DPRK

India

Lao PDR

Myanmar

Nepal

Philippines

Sri Lanka

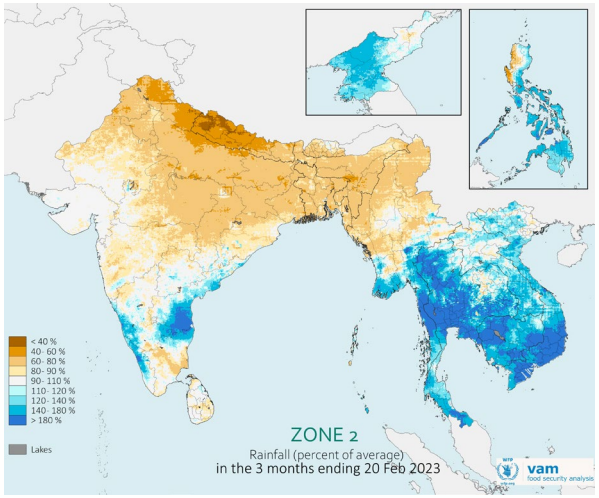
Zone 2: Rainfall Performance

Rainfall varied greatly in different countries across Zone 2

RAINFALL AS A PERCENT OF AVERAGE, NOVEMBER 2022-FEBRUARY 2023

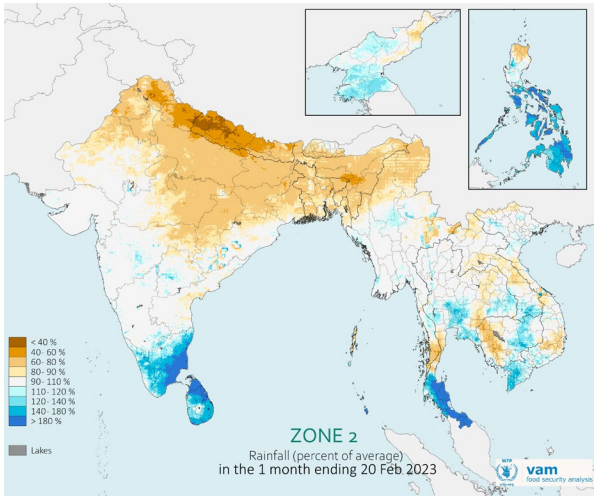
MAP 8: LAST THREE MONTHS

20 NOV 2022 — 20 FEB 2023



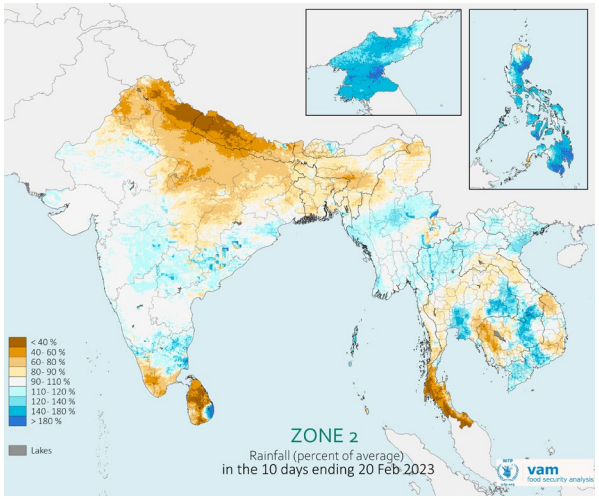
MAP 9: LAST MONTH

20 JAN 2023 - 20 FEB 2023



MAP 10: LAST TEN DAYS

11-20 Feb 2023



Rainfall during November 2022-February 2023 (Map 8) was light to moderate (>120 mm of average monthly rainfall) in central and southern Philippines and southeastern Sri Lanka, while it was drier than average in major parts of India and major parts of Myanmar (except southern coastal area and southern and east regions).

Wetter-than average conditions continued during **20 January-20 February 2023** in central and southern Philippines and major parts of Sri Lanka, while drier than average conditions continued in major parts of India and the northern part of Myanmar (Map 9).

Above average rainfall (>120 mm of average monthly rainfall) during **11-20 February 2023** was observed in central and southern Philippines and southern Sri Lanka, while light rainfall was observed (20-30 mm of average monthly rainfall) in some parts of southern Cambodia and southern DPR Korea (Map 10). In contrast, rainfall was lower than average in some parts of western India and northern Myanmar.

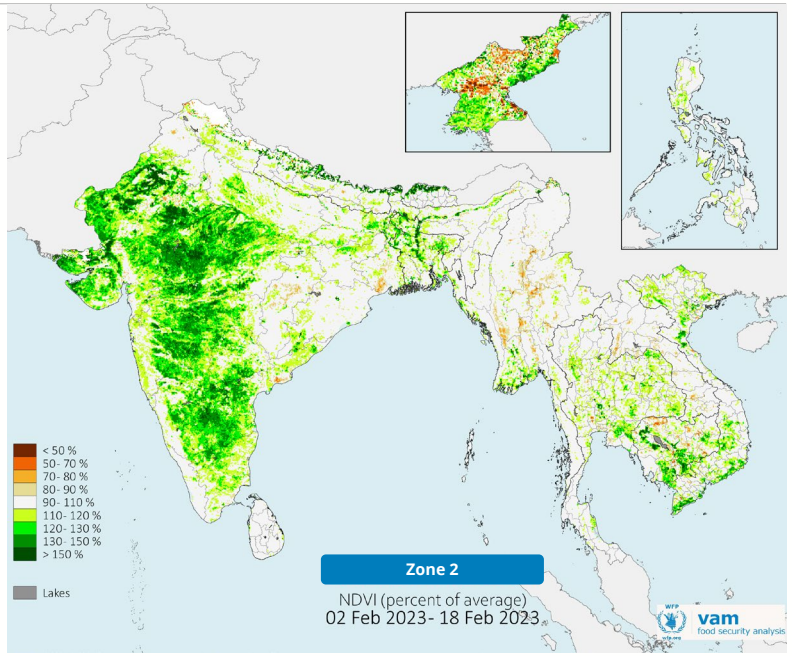
In the **Philippines**, heavy rains since 13 February 2023 caused floods and landslides across 22 provinces in eight regions; as of 21 February 2023, over 90,000 people were affected and over 32,000 people were displaced[13]. In **Sri Lanka**, heavy rains combined with strong winds during 1-3 February 2023 affected 578 people (168 households) with 157 houses damaged in some western and central parts[14].

Zone 2: Rainfall Vegetation and Crop Conditions

The wetter conditions during June- September 2022 contributed to favourable vegetation conditions across Zone 2 by 2-18 February 2023 (Map 11). Above-average vegetation was observed in Bangladesh, northern Bhutan, Cambodia, northern and eastern DPR Korea, India, and northern Nepal. In contrast, below-average vegetation continued in some parts of western and central DPR Korea due to below-average rainfall.

This zone had a favourable vegetation index in recent weeks

MAP 11: NORMALIZED DIFFERENCE VEGETATION INDEX (NDVI), 2-18 FEBRUARY 2023



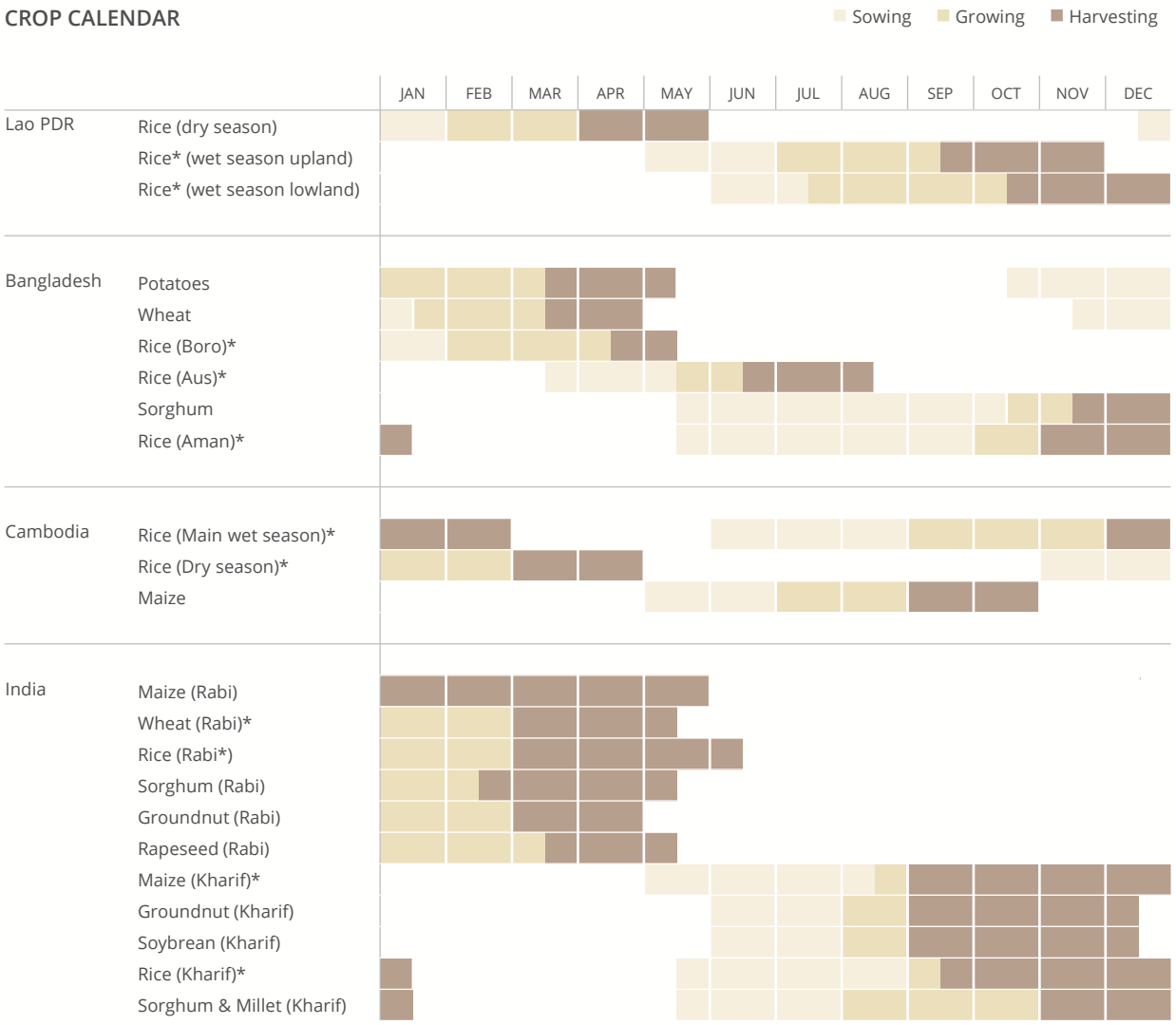
In **Bangladesh**, the growing of Boro season crops (rice and wheat) in February 2023 continued under favourable weather conditions. The harvesting of Boro season rice will begin in April. As of 8 February 2023, the 2022/23 output of rice (35.85 million tons) is expected at 3 percent above the five-year average[15].

In **Cambodia**, growing of dry season rice in February is in the maturity to harvest stage under good weather conditions. 25 percent of the cultivated areas were already harvested, and the yield is estimated at 4.5 tons per hectare which is higher than the three year average for 2020-2022 (3.8 tons per hectare). The total planted area of dry season rice was 666 thousand hectares, 6 percent higher than the total planted areas in 2022[16].

In **India**, the growing of Rabi crops (rice, wheat, pulses, coarse, cereals, and oil seeds) in February 2023 continued under favourable soil moistures and enough irrigation water supply. As of 3 February 2023, 720.68 lakh hectares have already been planted for rice, wheat, pulses, coarse, cereals, and oil seeds, 3 percent higher than total planted areas in 2022 (697.98 lakh hectares)[17].

In **Lao PDR**, the growing of dry season rice in February 2023 is in seeding to tillering stages under insufficient irrigation water supply because of poor rain and less sunlight for cultivation. The total planted area of dry season rice was about 68 thousand hectares (72 percent of the national plan), and the output of dry season rice is expected to be lower than the national plan[18].

CROP CALENDAR



Source: FAO/GIEWS, WFP CFSAM. Periods are rounded to half-months.

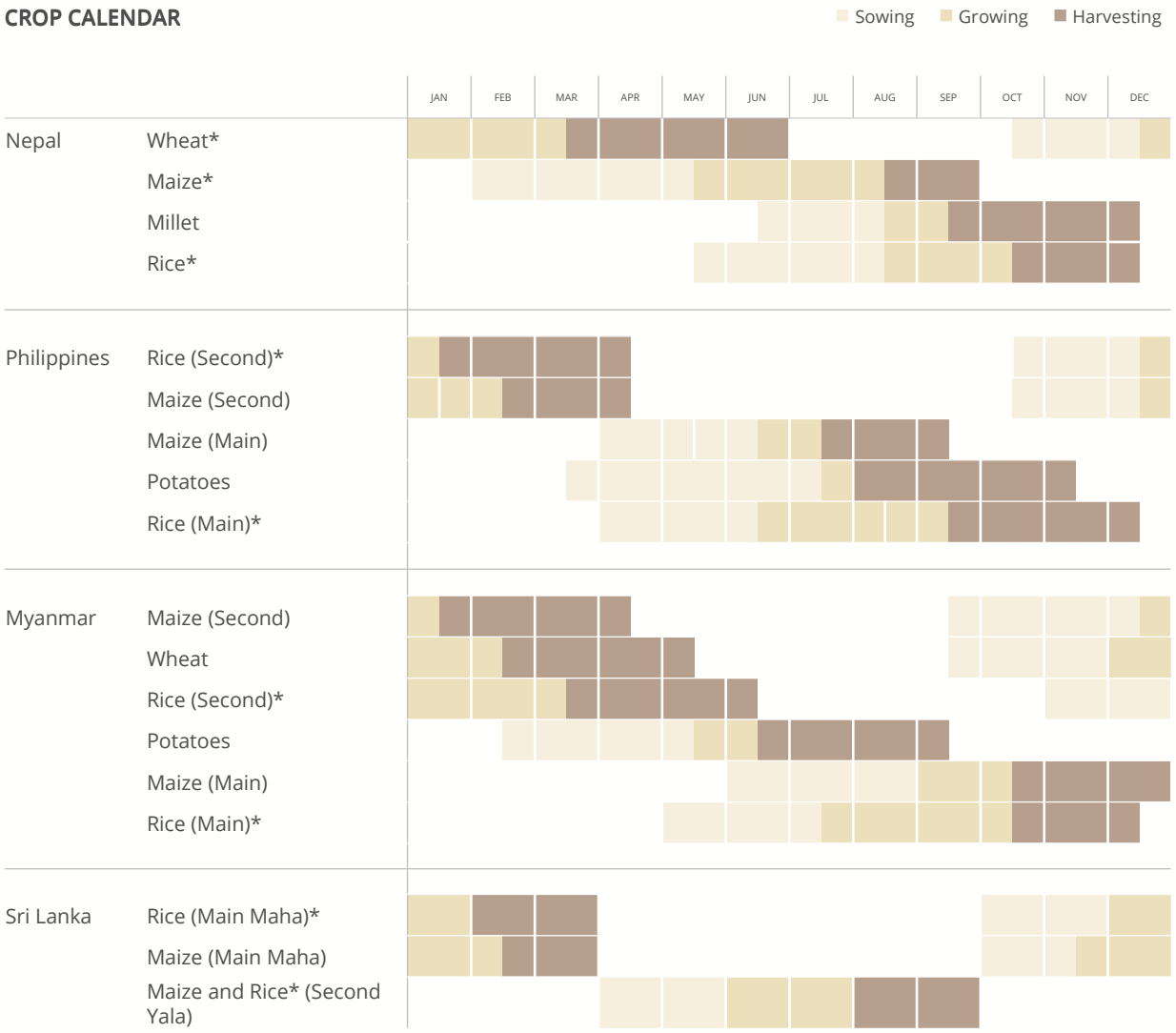
In **Myanmar**, the growing of dry season rice in February 2023 is in tillering to panicle formation stages under favourable weather conditions due to adequate irrigation water and sunshine. The total planted area of dry season rice was over 772 thousand hectares, 72 percent of the national plan (1.06 million hectares), and the output of dry season rice is expected to be higher than last year[19].

In **Nepal**, the growing of winter wheat in February 2023 continued to develop under good weather conditions and sufficient irrigation water supply due to above-average May to September 2022 monsoon rains. The total output of wheat is expected at 2.1 million tons, 1 percent higher than the five-year average[20].

In **Philippines**, the growing of dry season rice in February 2023 is in young panicle forming to heading stages under fair to good weather conditions as most parts of the country received average to above average rainfall [21].

In **Sri Lanka,** harvesting of 2022/23 Maha season maize and rice began in February 2023 under good weather conditions. Although there is improvement in the availability of fertilizer, access by farmers remains constrained. The total output of Maha season rice is expected at 2.7 million tons, 8.2 percent lower than the five-year average[22].

CROP CALENDAR



Source: FAO/GIEWS, WFP CFSAM. Periods are rounded to half-months.

Zone 2: Climate Outlook, March to May 2023

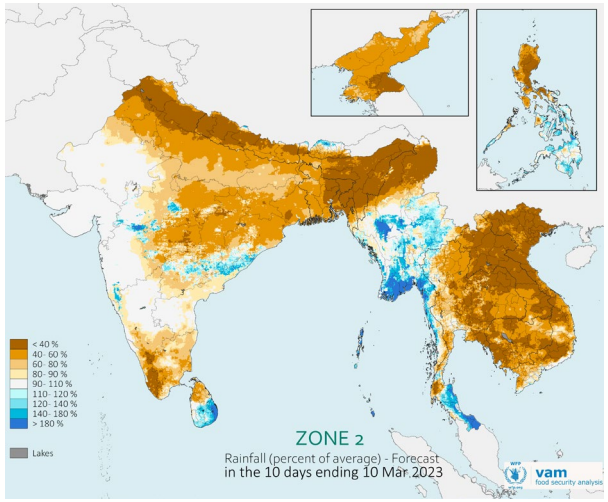
Drier than average conditions are expected in the short-term

The short-term forecast during 1-10 March 2023 indicates drier than average conditions in major parts of Zone 2. In contrast, there is an increased chance of above-average rainfall in some parts of eastern India, central and southern Myanmar, central and southern Philippines, and southern Sri Lanka (Map 12).

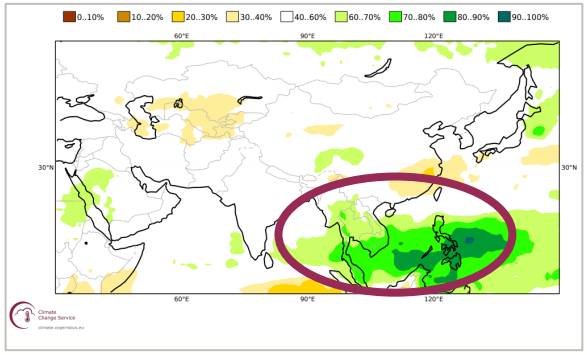
Rainfall during March-May 2023 is likely to be slightly above the normal conditions (60-80 percent possibility of exceeding the median rainfall) in Cambodia, southern Lao PDR, and southern Myanmar. The Philippines is likely to experience above-average rainfall, at >70 percent possibility. In contrast, rainfall is likely to be near average across Bangladesh, Bhutan, DPRK, India, Nepal, and Sri Lanka (Map 13).

Air temperature during March-May 2023 is likely to be above the normal conditions across major parts of zone 2, particularly in some parts of southern Bangladesh, northeastern India, western Myanmar, and southern Philippines (>80 percent possibility of exceeding the median temperature). In contrast, eastern Cambodia and southern Lao PDR are likely to experience slightly lower than the average air temperature, at a 20-40 percent possibility of exceeding the median temperature (Map 14).

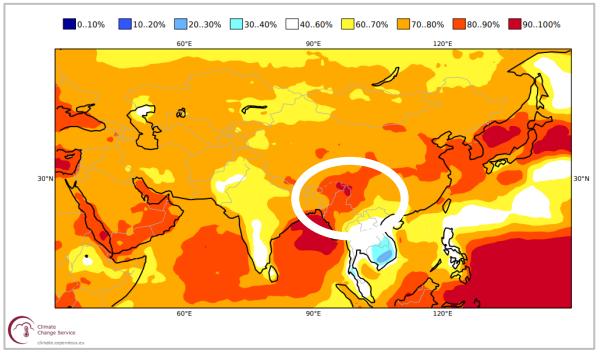
MAP 12: SHORT-TERM RAINFALL FORECAST AS A PERCENT OF AVERAGE, 1-10 MARCH 2023



MAP 13. LONG TERM RAINFALL FORECAST MAR-MAY 2023, PRECIPITATION > MEDIAN, %



MAP 14. LONG TERM TEMPERATURE FORECAST MAR-MAY 2023, 2m TEMPERATURE ABOVE MEDIAN, %



Map 13: C3S multi-system seasonal forecast probability (precipitation > median), nominal forecast, ECMWF/Met Office/Meteo-France/CMCC/DWD/NCEP/JMA/ECCC MAM 2023
Map 14: C3S multi-system seasonal forecast probability (2m temperature > median), nominal forecast, ECMWF/Met Office/Meteo-France/CMCC/DWD/NCEP/JMA/ECCC MAM 2023

Zone 3

Fiji

Indonesia

Kiribati

Papua New Guinea

Timor-Leste

Tuvalu

Vanuatu

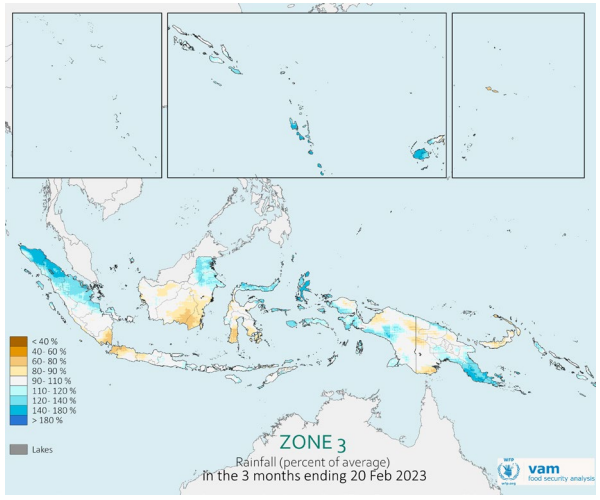
Zone 3: Rainfall Performance

Rainfall was wetter than average in countries across Zone 3

RAINFALL AS A PERCENT OF AVERAGE, NOVEMBER 2022-FEBRUARY 2023

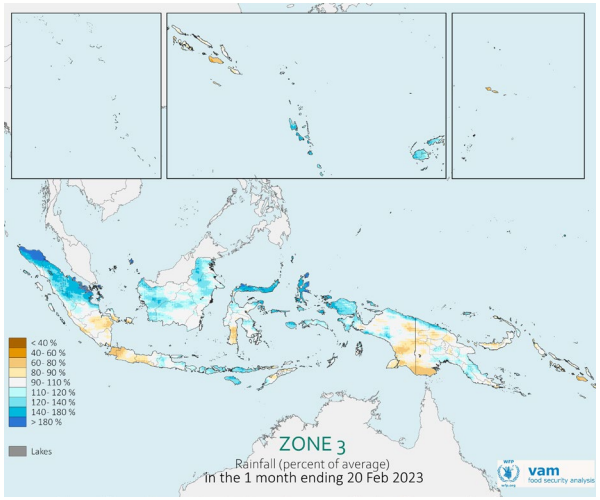
MAP 15: LAST THREE MONTHS

20 NOV 2022 — 20 FEB 2023



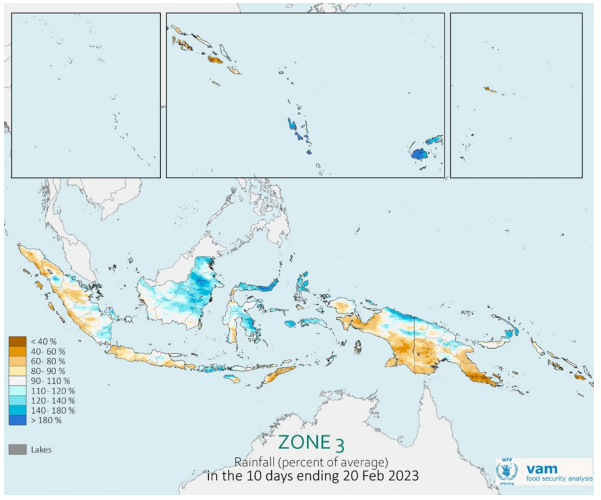
MAP 16: LAST MONTH

20 JAN 2023 - 20 FEB 2023



MAP 17: LAST TEN DAYS

11-20 Feb 2023



Rainfall during November 2022 – February 2023 was wetter than average (>300 mm of average monthly rainfall) across Fiji, Indonesia, Papua New Guinea, Solomon Islands, Timor Leste, and Vanuatu (Map 15). In contrast, drier-than-average conditions were observed in some parts of Kiribati, and Tuvalu.

During **20 January- 20 February 2023** (Map 16), above average rainfall (>300 mm of average monthly amount rainfall) continued in Fiji, Indonesia, Papua New Guinea, Solomon Islands, Timor Leste, and Vanuatu with high risks of floods in Fiji and Indonesia. Wetter than average conditions continued across Fiji, major parts of Indonesia, Papua New Guinea, Solomon Islands, Timor Leste, and Vanuatu during **11-20 February 2023** (Map 17). In contrast, drier-than-average conditions were observed in some parts of Kiribati and Tuvalu.

In **Fiji**, heavy rains on 3 February 2023 caused floods in Savusavu and Labasa districts of the country's Northern Division; 350 people (116 households) were displaced [23]. Heavy rains on 17th February 2023 caused floods in Western Division; at least one person died [24]. In **Indonesia**, heavy rains in February 2023 caused floods across Java, Kalimantan, and Sulawesi; about 13,000 people (6,300 households) in East Java were affected and 4,700 houses inundated[25]. In Central Java, about 28,000 people were affected by floods with over 9,000 people displaced[26].

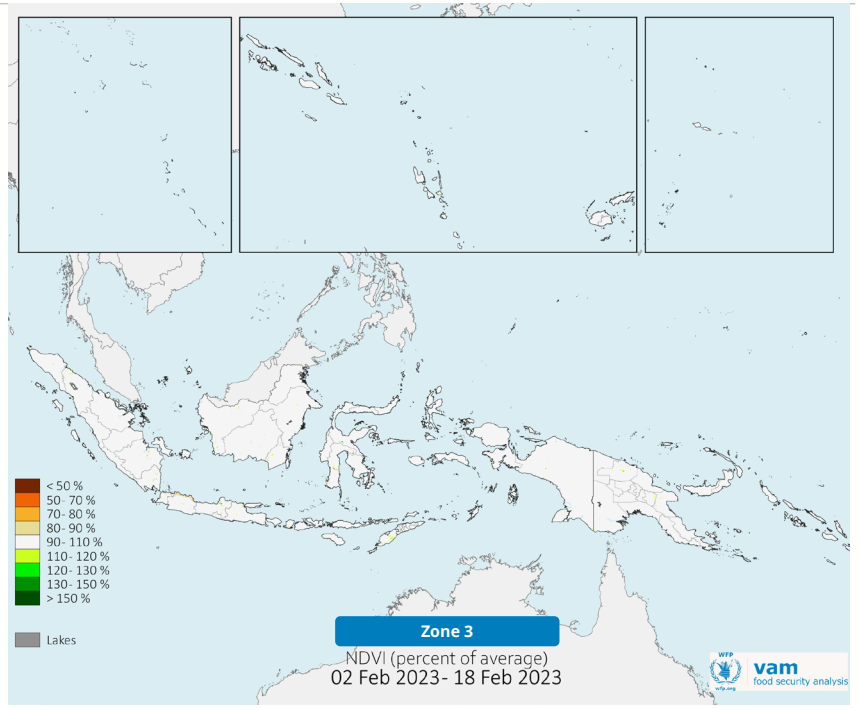
In **Vanuatu**, Tropical Cyclones Judy and Kevin in early March 2023 caused floods across the country; 250,000 people were affected by the tropical cyclones[27].

Zone 3: Rainfall Vegetation and Crop Conditions

Near average vegetation conditions were observed in most parts of the Pacific Island Subregion between 2 to 18 February 2023. Only a few areas (northern Java, southern Sumatra, and southern Sulawesi) have below-average vegetation conditions due to heavy rains during November 2022-January 2023 which caused flash floods and damaged crops (Map 18).

This zone had an average vegetation index in recent weeks

MAP 18: NORMALIZED DIFFERENCE VEGETATION INDEX (NDVI), 2-18 FEBRUARY 2023



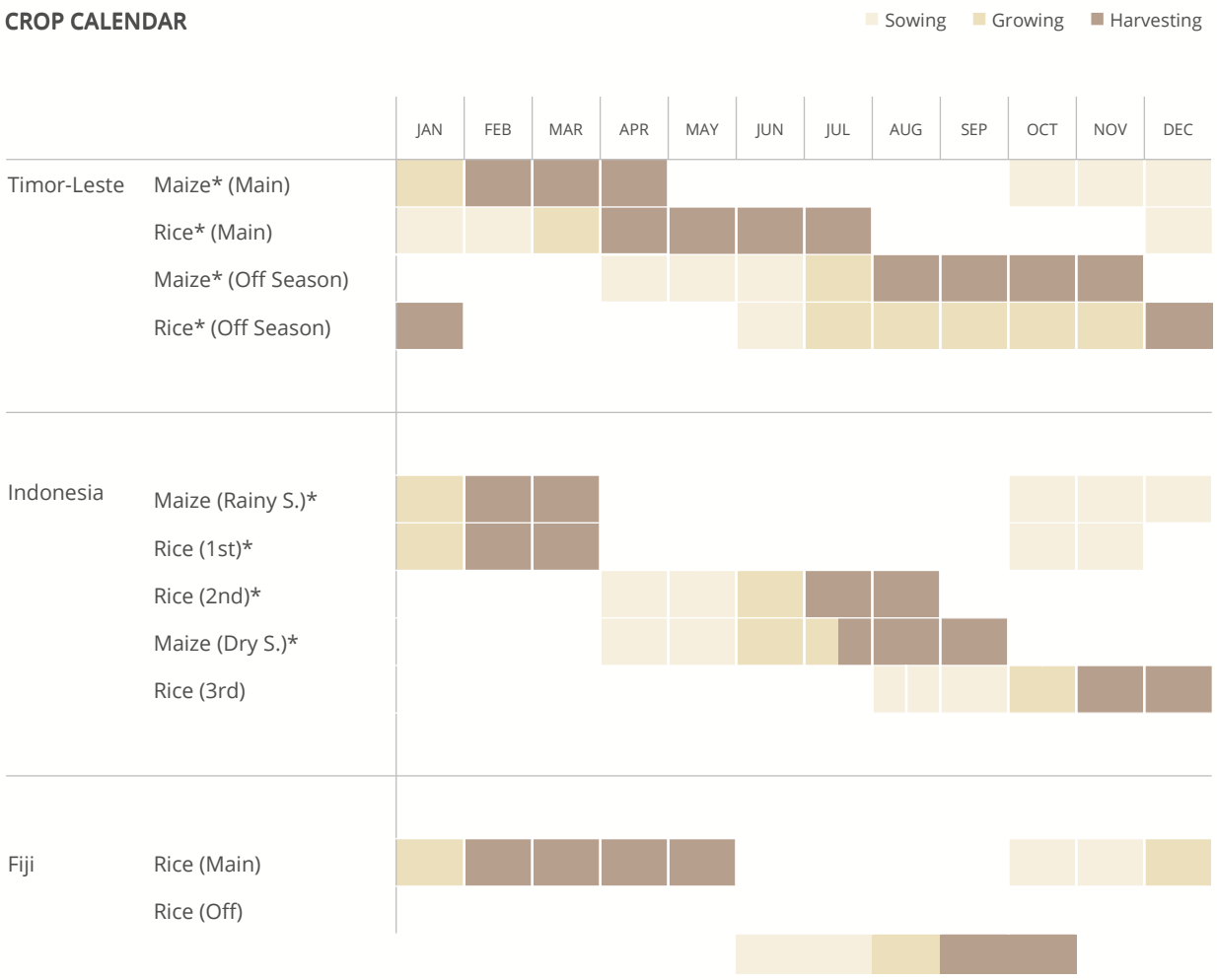
In **Fiji**, the harvesting of main season rice crops began in February 2023 under mixed weather conditions, while some parts of northern and western experienced heavy rainfall in early February 2023. Cane farmers were busy with draining out all standing water in the cane fields due to heavy rains[28].

In **Indonesia**, harvesting of earlier sown wet season rice continued in February 2023 under favourable weather conditions; 26 percent of cultivated areas were already harvested. The yield of wet-season rice is forecast to be good under enough sunlight during the growing period. Sowing of wet season rice continued into the fifth month with a total sown area of 6.2 million hectares, 14.8 percent higher than the previous wet season due to plentiful rainfall from late December to mid-January 2023[29].

In **Papua New Guinea**, the planting of banana, sweet potato, and taro in February 2023 is ongoing under mixed weather conditions[30].

In **Timor-Leste, the** harvesting of main maize began in February 2023, while the sowing of main season rice continued under good weather conditions. The Government allocated about USD 800,000 this year for buying rice and maize seeds from local farmers, with a strategic plan to increase agricultural producers and food production. However, the national rice production is projected to be insufficient to meet the domestic consumption needs[31].

CROP CALENDAR

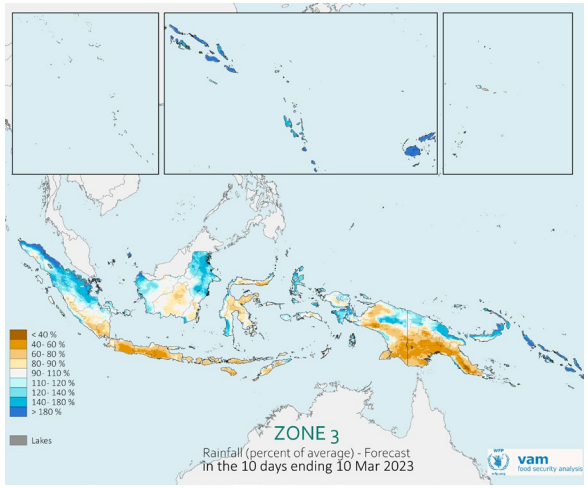


Source: FAO/GIEWS, WFP CFSAM, USDA. Periods are rounded to half-months.

Zone 3: Climate Outlook, March to May 2023

Wetter than average conditions are expected in the short-term

MAP 19: SHORT-TERM RAINFALL FORECAST AS A PERCENT OF AVERAGE, 1-10 MARCH 2023

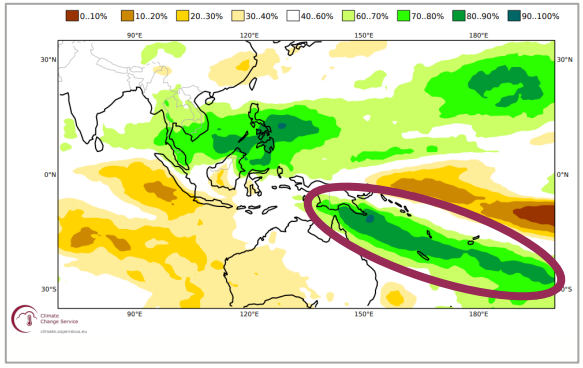


The short-term forecast during 1-10 March 2023 indicates that wetter than average conditions (>200 mm of average monthly amount rainfall) are likely in Fiji, eastern Papua New Guinea, Solomon Islands, and Vanuatu. Light to moderate rainfall is expected across Indonesia, Timor-Leste, and the Central Pacific Island States (Kiribati and Tuvalu) (Map 19).

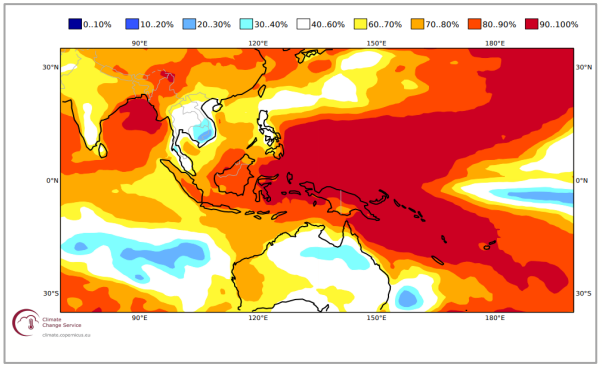
Rainfall during March-May 2023 shows above average rainfall conditions (70-90 percent possibility of exceeding the median rainfall average) in Fiji, southern Papua of Indonesia, southern Papua New Guinea, and Vanuatu. In contrast, some parts of Indonesia (Java, central Kalimantan, Sulawesi, western Sumatra), and the Central Pacific Island States (Kiribati and Tuvalu) are likely to experience below-average rainfall (Map 20).

Air temperature during March-May 2023 is likely to be higher than average temperature conditions across this zone (greater than 70 percent possibility of exceeding the median temperature) (Map 21).

MAP 20. LONG TERM RAINFALL FORECAST MAR-MAY 2023, PRECIPITATION > MEDIAN, %



MAP 21. LONG TERM TEMPERATURE FORECAST MAR-MAY 2023, 2m TEMPERATURE ABOVE MEDIAN, %



Map 20: C3S multi-system seasonal forecast probability (precipitation > median), nominal forecast, ECMWF/Met Office/Meteo-France/CMCC/DWD/NCEP/JMA/ECCC MAM 2023
Map 21: C3S multi-system seasonal forecast probability (2m temperature > median), nominal forecast, ECMWF/Met Office/Meteo-France/CMCC/DWD/NCEP/JMA/ECCC MAM 2023

Areas of Concern

Climate related concerns

Potential drivers of Food Insecurity in January 2023

Rainfall Seasonal Patterns

Climate-related concerns

RECENT CLIMATE HAZARDS (FEBRUARY-EARLY MARCH 2023)

Afghanistan– Snowfalls (Feb 2023)
Snowfall and extreme cold damaged 20 houses and 600 areas of farmlands in Badakhshan province, in the north[32]

Fiji– Floods (Feb 2023)
Heavy rains caused floods in Northern Division; 116 households (350 people) were displaced [33].

Indonesia– Floods (Feb 2023)
Heavy rains caused floods in Java, Kalimantan, and Sulawesi. In east and central Java, 41,000 people were affected [34&35].

Pakistan– Floods (Jul 2022)
Water remained in many flooded areas across the country. As of February 2023, some 4.5 million people remained exposed to or living close to flooded areas[36].

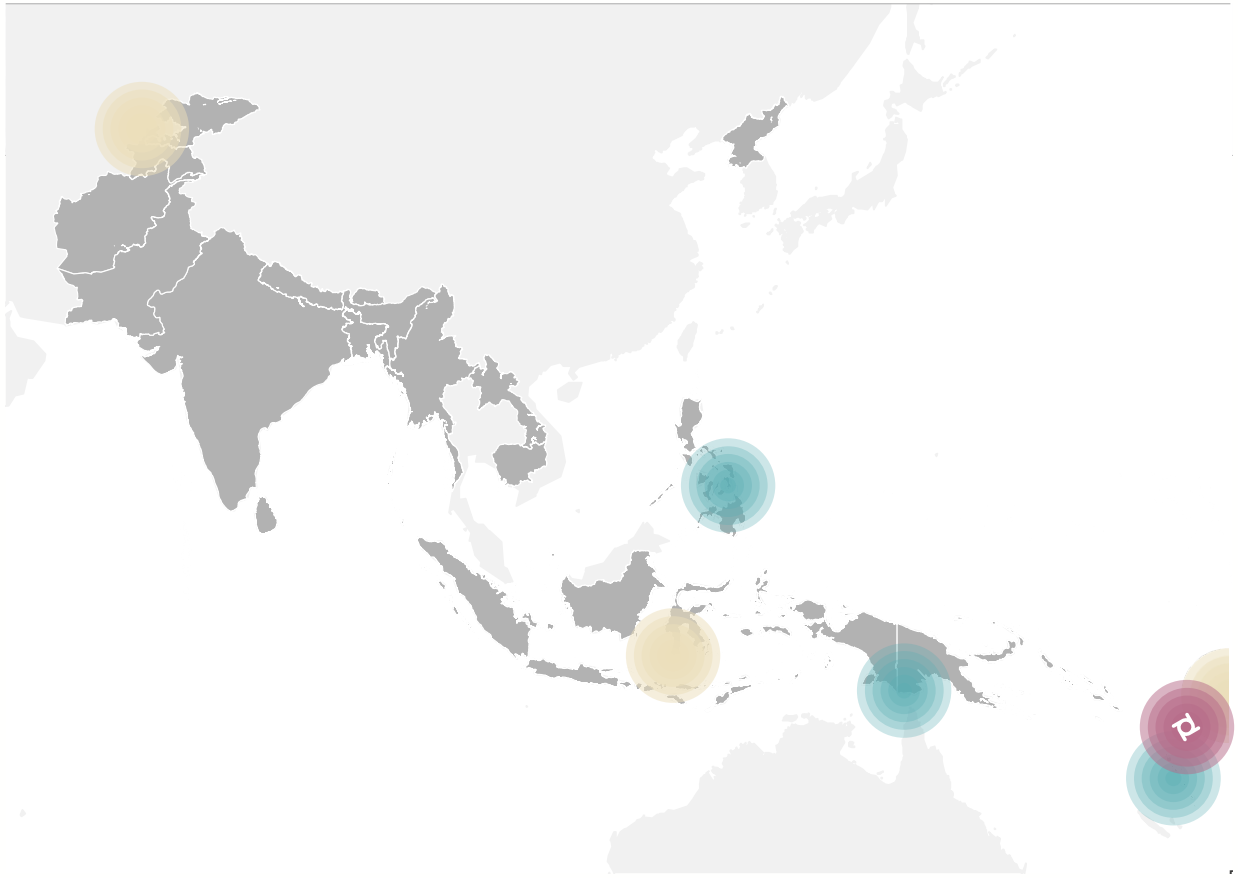
Philippines – Floods (Feb 2023)
Heavy rains caused floods and landslides across eight regions; over 90,000 people were affected and 32,000 people were displaced[37].

Sri Lanka – Floods (Feb 2023)
Heavy rains caused floods across western and central parts of the country; 578 people were affected and 157 houses were damaged [38].

Vanuatu-Cyclones (Mar 2023)
Tropical Cyclones Judy and Kevin caused floods across the country. The Cyclones affected 250,000 people[39].

Climate-related concerns

SEASONAL OUTLOOK (MARCH-MAY 2023)



Wetter than normal rainfall: Wetter conditions are likely in some parts of Fiji, Papua of Indonesia, the Philippines, southern Papua New Guinea, and Vanuatu.

Lower than normal rainfall: Drier conditions are projected in some parts of Indonesia (Java, central Kalimantan, Sulawesi, Sumatra), Kiribati, western Kyrgyz Republic, western Tajikistan, and Tuvalu.

Cyclone activity: January-March is the peak period for tropical cyclone activity in the Southwest Pacific. Tropical Cyclones Judy and Kevin formed over the South Pacific Ocean during the end of February to early March and passed Vanuatu with heavy rainfall and strong winds in early March 2023. Low cyclone activity is expected during 7-12 March[40].

Graphics on this map are only for illustrative purposes, and do not represent any specific values.

Potential Drivers of Food Insecurity in February 2023

Country	Rain performance (11-20 Feb 23)	Short-Term Forecast (1-10 Mar 23)	Long-Term Forecast (Mar-May23)	Crop Production (Feb 23)	Conflict / Displacement	Inflation (%)	Inflation Date	Food Inflation (%)	Food Inflation Date	Currency Exchange (YoY, %, Feb)	Moderate or Severe Food Insecurity (%)
Afghanistan						5.2 ↔	Dec'22	5.2 ▼	Dec'22	3.7 ▲	48%[a]
Bangladesh					Conflict, Displacement	8.6 ↔	Jan '23	7.8 ↔	Jan '23	-19.2 ▲	13%[b]
Bhutan						4.3 ↔	Jan '23	1.5 ↔	Jan '23	-9.3 ↔	
Cambodia						2.9 ▼	Dec'22	3.8 ▼	Dec'22	-0.5 ▼	6%[c]
DPRK						NA		NA		NA	
Fiji						1.5 ▼	Feb '23	3.2 ▼	Feb '23	-2.8 ▼	1.4%[d]
India						6.5 ▲	Jan '23	5.9 ▲	Jan '23	-9.3 ↔	
Indonesia						5.5 ↔	Feb '23	7.2 ▲	Feb '23	-5.0 ▼	
Kyrgyz Rep						15.3 ↔	Jan '23	16.8 ▲	Jan '23	-3.5 ▲	15%[e]
Laos						41.3 ↔	Feb '23	49.3 ↔	Feb '23	-32.6 ↔	13%[f]
Myanmar					Conflict, Displacement	19.6 ↔	Jul '22	18.4 ▲	Jul '22	-15.5 ↔	27%[g]
Nepal						7.3 ↔	Jan '23	5.6 ↔	Jan '23	-9.2 ↔	
Pakistan				Extensive floods		31.5 ▲	Feb '23	45.1 ↔	Feb '23	-34.6 ▲	42%[h]
Philippines						8.6 ↔	Feb '23	10.8 ↔	Feb '23	-6.4 ▼	11%[i]
Sri Lanka						50.6 ↔	Feb '23	54.4 ▼	Feb '23	-44.3 ↔	32%[j]
Tajikistan						4.5 ▼	Nov '22	6.1 ▼	Oct '22	8.3 ▲	18%[k]
Timor Leste						6.7 ▼	Nov '22	7.2 ▼	Nov'22	NA	22%[l]

LEGEND

RAIN PERFORMANCE

- Rainfall>140percent = heavy rainfall
- Rainfall 110-140percent = slight to moderate rainfall
- Rainfall 90-110percent = normal condition
- Rainfall 60-90percent = slight to moderate drought
- Rainfall < 60percent = severe drought

Abnormally high/low amounts of rain can affect crop production and lead to food insecurity.

CROP PRODUCTION

- Severe drought's effect on crop production
- Extensive floods effect on crop production

INFLATION/FOOD INFLATION (Month-on-Month)

- ▲ (Food) inflation rate change increased by more than 5 percent
- ▼ (Food) inflation rate change decreased by more than 5 percent
- ↔ (Food) inflation rate change between -5 percent to 5 percent

CURRENCY EXCHANGE (Year-on-Year)

- ▲ Exchange rate change increased by more than 5 percent
- ▼ Exchange rate change decreased by more than 5 percent
- ↔ Exchange rate change between -5 percent to 5 percent

CONFLICT AND DISPLACEMENT

- Conflict
- Displacement

NA : updated data not available

[a] **Afghanistan**'s overall acute food insecurity index is determined with the forthcoming IPC, which estimates some 20 million people to be acutely food insecure
[b] **Bangladesh** Food Security Monitoring (mVAM): January 2023
[c] **Cambodia** Food Security and Nutrition Assessment Flood Prone Areas: October 2022
[d] **Fiji** Food Security Analysis Round Thirteen: September 2022
[e] **Kyrgyz Republic** Food Security Monitoring Update: December 2022
[f] **Lao PDR** Food Security Monitoring: December2022/January 2023
[g] **Myanmar** DIEM Data in emergencies monitoring brief round 4: January 2023
[h] **Pakistan** Situation report 5 October 2022. Food insecure people in IPC assessed areas and flood affected areas (it is not a national value)
[i] **Philippines** Food Security Monitoring: October 2022
[j] **Sri Lanka** Food Security Monitoring: January 2022
[k] **Tajikistan** Quarterly Household Food Security and Market Update July-September 2022: October 2022
[l] **Timor Leste** IPC January 2023

RBB Countries Rainfall Seasonal Pattern

Month		JAN			FEB			MAR			APR			MAY			JUN			JUL			AUG			SEP			OCT			NOV			DEC			Average annual rainfall (mm)	Accumulative rainfall variation by October (%)	Accumulative ra infall variation by October (mm)
Dekad (ten-day rainfall period)		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3			
Zone 1	Afghanistan																																					231.4	-11.8	-18%
	Kyrgyz Republic																																					394.5	-7.0	-22%
	Pakistan																																					227.0	-11.7	-37%
	Tajikistan																																					323.3	-13.2	-23%
Zone 2	Bangladesh																																					2330.7	-4.1	-28%
	Bhutan																																					893.5	-3.5	-27%
	Cambodia																																					1964.8	6.6	45%
	DPRK																																					941.9	2.5	14%
	India																																					1098.9	-4.2	-25%
	Lao PDR																																					1838.2	1.4	6%
	Myanmar																																					2090.0	-1.7	-13%
	Nepal																																					1384.7	-23.7	-65%
	Philippines																																					2251.6	207.0	85%
	Sri Lanka																																					1792.5	2.7	1%
Zone 3	Fiji																																					2820.7	171.6	33%
	Indonesia																																					2685.6	31.9	7%
	Timor-Leste																																					1749.4	-77.8	-16%

Data source: WFP Dataviz Seasonal Explore

- **Very heavy rains, heavy rainfall period.** 10 daily rainfall > 3 times the average 10 daily contribution to annual rainfall.
- **Heavy rains; core rainfall period.** 10 daily rainfall > 2 times the average 10 daily contribution to annual rainfall.
- **Moderate rains; rainfall season.** 10 daily rainfall > 1 to 2 times the average 10 daily contribution to annual rainfall.
- **Light rains; starting/residual rainfall season**. 10 daily rainfall > 0.5 to 1 time the average 10 daily contribution to annual rainfall.
- **Dry season**; 10 daily rainfall <0.5 times the average 10 daily contribution to annual rainfall.

Rainfall > 100 mm

Sources

Rainfall time series for trend analysis and seasonal drought monitoring
CHIRPS (Climate Hazards Group InfraRed Precipitation with Station data) gridded rainfall dataset produced by the Climate Hazards Group at the University of California, Santa Barbara: (http://chg.geog.ucsb.edu/data/chirps/)

NDVI
MODIS NDVI CMG data made available by NOAA-NASA. (http://reverb.earthdata.nasa.gov/)

Seasonal Climate Forecast and ENSO Forecast
International Research Institute for Climate and Society (https://iri.columbia.edu/)

Crop monitoring
GEOGLAM Crop Monitor (https://cropmonitor.org/)

(Food) Inflation rate and currency exchange
Trading Economics (https://tradingeconomics.com)

Long-term precipitation and temperature forecasts
The Copernicus Climate Change Service (https://climate.copernicus.eu/charts/packages/c3s_seasonal/)

For more detailed information on seasonal forecast, please visit Seasonal: Rainfall and Vegetation: Visualizations - Dataviz | WFP - VAM

DISCLAIMERS: All climate content within this bulletin is based upon the most current available remote sensing data.
As the climate phenomena is a dynamic situation, the current realities may differ from what is depicted in this document.

Countries in the region have been classified into three zones according their geographical location (latitude, longitude) and climate (rainfall and temperature). This classification do not correspond to any official subregions or categories

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