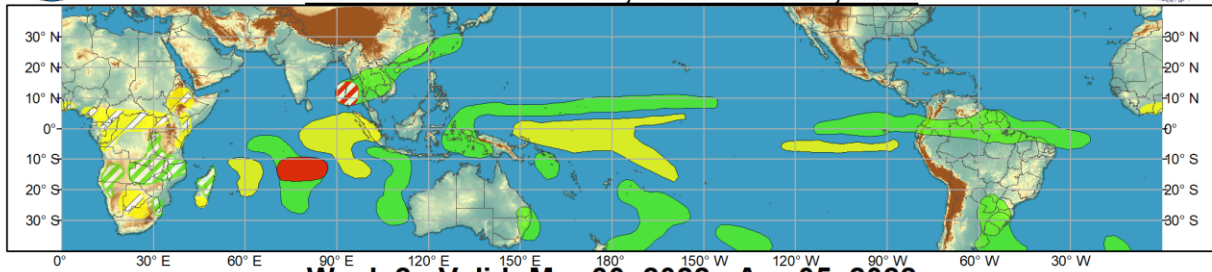




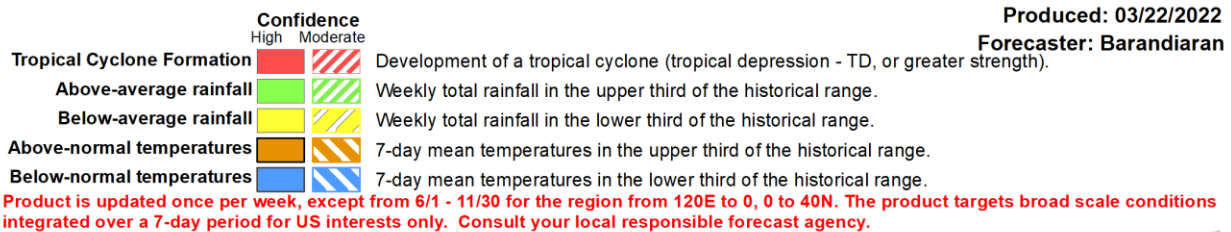
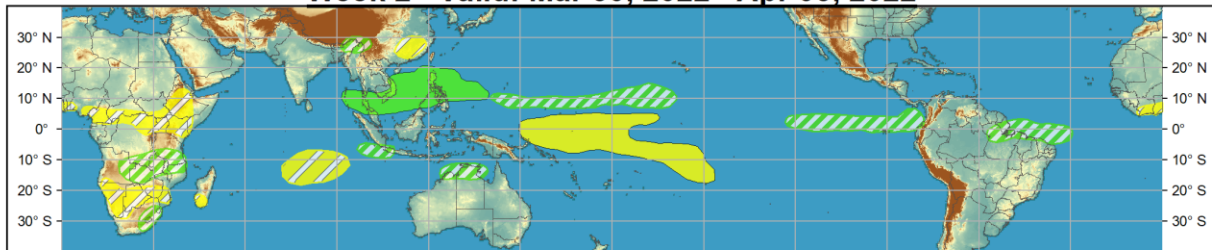
## Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



**Week 1 - Valid: Mar 23, 2022 - Mar 29, 2022**



**Week 2 - Valid: Mar 30, 2022 - Apr 05, 2022**



**Produced: 03/22/2022**

**Forecaster: Barandiaran**



The Madden Julian Oscillation (MJO) has been more coherent over the last few weeks, steadily propagating eastward from phase 2 into phase 3, with the main convective region shifting from the Indian Ocean into the Maritime Continent. From here though, model consensus is that the MJO will weaken significantly as it moves over the Maritime Continent and into the western Pacific, with both the GEFS and the ECMWF RMM forecasts pushing the index into the unit circle within the next 7 days. After that the models diverge in their solutions, with the GEFS predicting a restrengthening of the RMM index as the MJO moves into phase 7, while the ECMWF favors a more damped solution, keeping the index within the unit circle out into early April. The current focus of enhanced convection over the eastern Indian Ocean is anticipated to increase tropical cyclone (TC) formation in that basin for a few more days until the MJO moves out of the region and into the Maritime Continent.

For the past several weeks the bulk of observed TC activity has been over the southern Indian Ocean, with the recent formation of TC Charlotte near 13S/114E over the weekend. The Joint Typhoon Warning Center (JTWC) expects Charlotte to track southward over the next few days, where it will gradually weaken as it moves into a more unfavorable environment of cooler water temperatures and increased vertical wind shear, eventually transitioning to an extratropical system and curving towards the western

coast of Australia over the course of this week. Other areas of interest over the next week include two areas of organized convection: one near the western coast of Myanmar (91B) and the other in the southern Indian Ocean (94S). 94S is expected to continue to consolidate as it moves westward with low to moderate wind shear and warm sea surface temperatures. The JTWC assigns moderate confidence to TC formation within the next 24 hours and model guidance suggests that over the coming week probability of TC formation exceeds 60%. The other area of interest (91B) is also becoming more organized, but is tracking towards land and so the window of opportunity for development into a TC is closing. Nonetheless we are including a moderate confidence shape for TC formation with this system given its current strength and favorable environment for development. Looking ahead to week-2, there is some indication from model guidance that TC formation is possible near the Philippines and also along the northern coast of Australia, but there is insufficient agreement between the models to warrant the inclusion of a development shape. We will continue to monitor these areas and give updates as needed.

The precipitation outlook for the next two weeks is based on anticipated TC tracks, expected contributions from MJO and La Nina conditions, and consensus of GEFS, CFS, and ECMWF ensemble mean solutions. In the western Pacific, there continues to be enhanced (suppressed) precipitation over portions of the Maritime Continent (western Pacific south of the Equator), consistent with La Nina conditions. Continued wet conditions over northern portions of Mozambique are of concern given the recent flooding event associated with the landfall of Cyclone Gombe earlier this month. Also of concern in the week-1 period are two areas of enhanced precipitation in South America, one stretching along the Equator from the tropical eastern Pacific to the western Atlantic Ocean, and the other in southern Brazil. Both regions have seen heavy rainfall recently with associated flooding and landslides, which would be further exacerbated by any additional rainfall.

For hazardous weather conditions during the coming two-week period, please refer to your local NWS office, the Medium Range Hazards Forecast produced by the Weather Prediction Center, and the CPC Week-2 Hazards Outlook. Forecasts made over Africa are made in coordination with the International Desk at CPC.