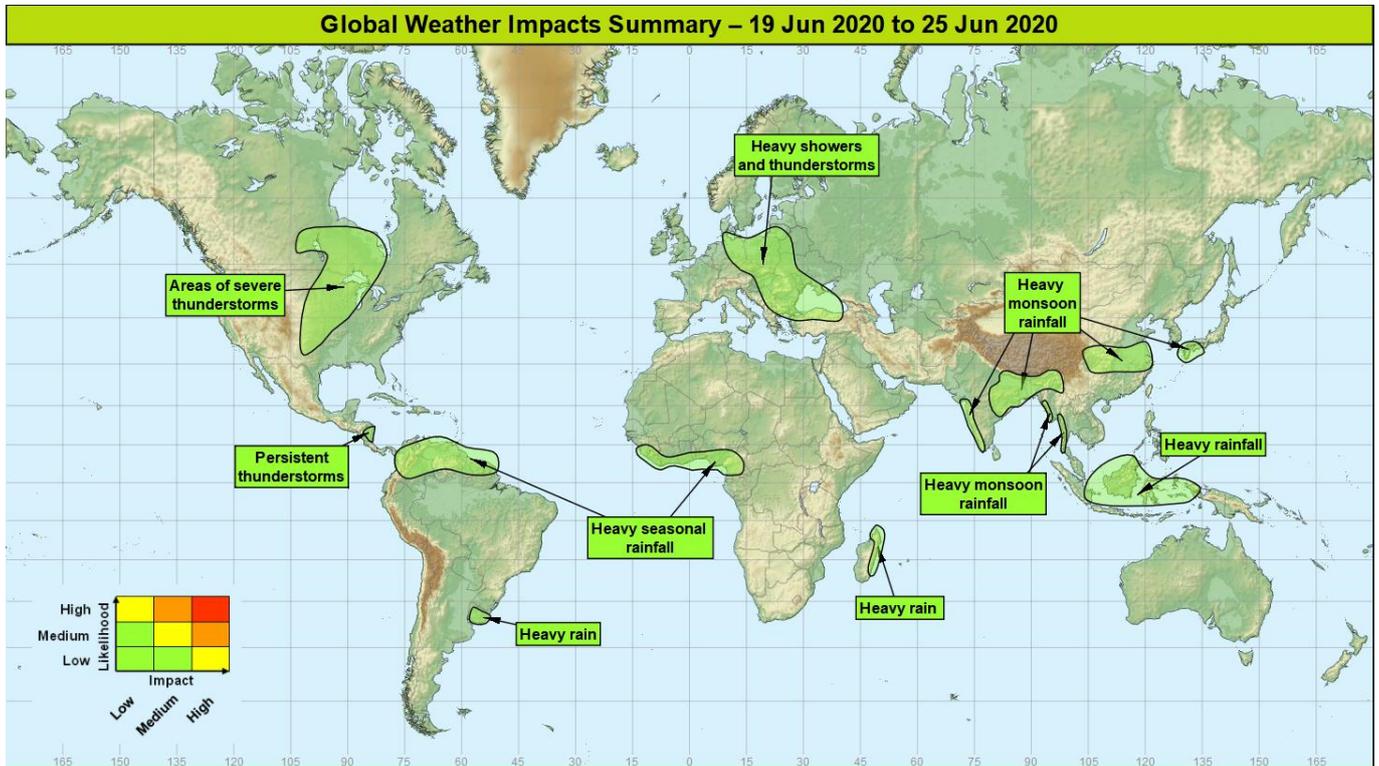


## Global Weather Impacts – Friday 19<sup>th</sup> to Thursday 25<sup>th</sup> June 2020

Issued on Friday 19<sup>th</sup> June 2020

### HEADLINES

- Heavy monsoon rainfall for parts of South and East Asia, though easing across southeast Bangladesh.
- Heavy showers and severe thunderstorms expected over parts of continental Europe.



### DISCUSSION

#### Tropical Cyclones

Nil.

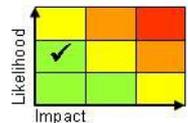
#### Europe

#### Central and south-east Europe

#### Weather

Further thunderstorms are expected across many parts of Europe, but with time the focus across northern parts of the continent is expected to shift eastward. Initially, the focus will be across Germany and Poland, southeast towards Turkey and the Balkans. Into the weekend this will shift to become confined mainly to eastern Europe (Baltic States to Turkey). Rainfall amounts will vary significantly from place to place but 20-40 mm locally 50-80 mm is possible in a few locations over 2-3 hours. A more organised band of thundery rain may bring 50-100 mm of rain today to parts of Poland, Czech Republic, Slovakia, northern Germany and Denmark.

#### Discussion



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The upper trough responsible for the convective weather across the UK this week, will finally begin to elongate ESE across central and E'ern Europe in the face of upstream progression. This will shift the focus of most widespread showers and thunderstorms further E/SE. A baroclinic zone is likely to set up in advance of this manifesting as heavy rain from Denmark SE to Slovakia/Czech Republic. Ahead of this, high WBPT, CAPE and PWAT maintains the risk of severe thunderstorms.

### Expected Impacts

Flash flooding events looks likely, with a risk of some hail and wind damage too. Lightning impacts on transport and power networks are likely.

## North America

### Great Plains USA to southern Canada

#### Weather

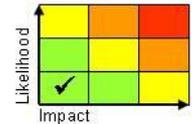
Strong to locally severe thunderstorms are expected to affect the region over the next few days, although this risk will likely subside through the weekend. In addition to locally heavy rain, large hail and strong winds, as well as a low risk of a tornadoes, are possible with the more severe thunderstorms. Over the next few days, the focus of activity will be across Canada and the northern Plains, but is likely to extend south by the weekend.

#### Discussion

An upper trough over the Rockies is inducing warm advection on its eastern flank with a surface low lifting north into Canada. The upper trough remains relatively slow-moving and is expected to elongate later in the week providing greater forcing to trigger locally severe thunderstorms further south into the central and southern Plains. With increasing mobility upstream, this encourages progression in the upper pattern over the weekend and early next week resulting in a downturn in the convective threat.

#### Expected Impacts

Flash flooding is possible, with urban areas mainly at risk. Localised hail and wind damage, both from straight line winds and also isolated tornadoes.



## Central America and Caribbean

### Parts of Belize, Guatemala, Honduras and Nicaragua (especially Caribbean Sea coasts)

#### Weather

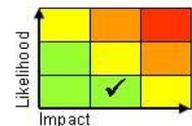
A steady stream of thundery showers running west from the Atlantic will bring fairly persistent heavy rain to these areas, with a focus on the eastern coasts. Some places will see 50-75mm in a day, and there is a chance that some locations could see in excess of 200mm over the next 5 days, which is close to a month's worth of rain for this location.

#### Discussion

A number of African Easterly Waves are expected to run across or to the north of this region over the next few days, bringing enhanced easterly flow and concentrating moisture and showers/thunderstorms in convergence bands inland.

#### Expected Impacts

Areas of flooding, mainly flash flooding, are possible, along with landslides in elevated terrain. Some parts of Nicaragua may be more sensitive given the impacts from Tropical Storm Amanda earlier this month.



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## South America

### Colombia, Venezuela, Guyana, Suriname and French Guiana

#### **Weather**

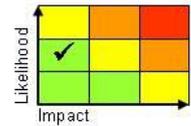
Showers and thunderstorms will be more widespread and intense than usual across the region over the next week. Widespread daily accumulations of 50-75 mm are expected with some regions having up to 300 mm by the middle of next week.

#### **Discussion**

The ITCZ across northern parts of South America will be more active than normal over the next week, mainly thought to be due to high SSTs in the tropical Atlantic Ocean and Caribbean.

#### **Expected Impacts**

Increased risk of flash flooding across the region.



## Uruguay

#### **Weather**

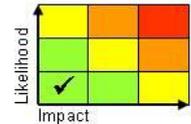
Spells of heavy rain and thunderstorms are expected across Uruguay through to Sunday with central and southern parts of the country likely to receive 75-125 mm widely by the end of the week. Typically, Montevideo receives around 85 mm of rain during June.

#### **Discussion**

A succession of shortwave troughs embedded within the zonal upper pattern across South America will draw upon the reservoir of subtropical moisture to the north spawning a number of frontal waves that then develop as they move into the South Atlantic. The high WBPT airmass will also contain the threat of embedded thunderstorms.

#### **Expected Impacts**

Although ground conditions are slightly drier than average for the time of year, there is an increased likelihood of flash flooding, as well as landslides in areas of more steeply sided terrain.



## Africa

### Southern parts of West Africa

#### **Weather**

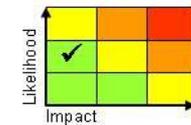
Heavy showers and thunderstorms are probable at times through the next week, likely coming in bursts of one to two day events. Each event could produce 50-75mm of rain, with total accumulations of up to 150mm possible through the next seven days. To the north of this area dense dust storms are likely at times from dry thunderstorms. Through June this coastal region usually sees 250-500mm of precipitation.

#### **Discussion**

A number of Africa Easterly Waves are signalled to affect this region through the next week, bringing periods of organised deep convection with much less widespread convection in between. Just to the north of the highlighted region, the convection is likely to produce strong dry downdraughts that will result in dense Haboob dust storms.

#### **Expected Impacts**

Isolated flash flooding events could occur, with an increased threat of landslides where terrain is steep.



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## North and east Madagascar

### Weather

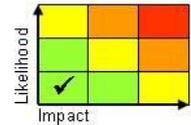
An area of heavy showers and thunderstorms, currently over the central Indian Ocean, looks likely to drift south-westwards over the next few days to bring a spell of heavy and persistent rainfall to this region, possibly arriving later today (Friday) but more likely over the weekend. There is potential for in excess of 300 mm in a few locations. This is much more than the average monthly rainfall for this time of year, and similar to the monthly averages of the wetter austral summer months (c. 300mm).

### Discussion

An equatorial Rossby wave on the southern side of the Equator is expected to drift slowly southwest on the periphery of the South Indian sub-tropical ridge. An element of development looks likely but the environment (unfavourable vertical wind shear and dry air to the northwest) won't be conducive to organised tropical cyclogenesis. Nevertheless, a tropical depression is expected to be accelerated onto the coast of north and east Madagascar, bringing similar moisture and rainfall rates to those associated with tropical storms.

### Expected Impacts

This region is used to heavy, tropical rainfall, but this does come at a more unusual time of year. There is likely to be a slightly increased risk of flash flooding, and localised landslides in steeper areas.



## Middle East

Nil.

## Asia

### West, central and northeast India, Bangladesh, northern Myanmar and Bhutan

#### Weather

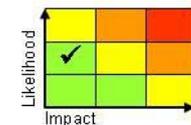
The Indian summer monsoon will continue to progress north over the next week and remain active. Rainfall across eastern and central India will be enhanced by a slow moving monsoon depression, which will also enhance the monsoon south-westerly flow across the northern Bay of Bengal. Each day, there will be the potential for 150-200 mm of rain to fall in places. In excess of 800 mm could fall in a few spots in each of the highlighted regions, which a couple of months' worth of rain in just a week in some places.

#### Discussion

The monsoon is expected to continue to progress northwards in an active phase through the coming week, with enhanced SW'ly flow bringing persistent rain/thunderstorms to the western Ghats, Bangladesh, and NE India. A monsoon depression forming over Chhattisgarh and becoming slow-moving will concentrate large areas of rainfall here and in parts of Madhya Pradesh, Uttar Pradesh, Bihar, Jharkhand, and Odisha through the remainder of the week.

#### Expected Impacts

Increased likelihood of surface water and river flooding and landslides.



### Western Myanmar and the far southeast of Bangladesh (including Cox's Bazar)

#### Weather

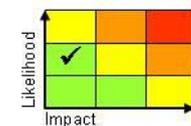
The recent ongoing spell of monsoon heavy showers and thunderstorms is expected to ease with shower and thunderstorm activity returning to nearer average frequency into weekend. A further 75-150 mm is possible in a few places until the end of the weekend, equivalent to around 20% of the June average for Cox's Bazar region.

#### Discussion

A more veered low-level flow is now generating more widespread deep convection that is then advected onshore across the coast of Myanmar and southeast Bangladesh, enhanced by the development of a monsoon depression over northeast India. As this low level eases and backs in direction over the coming couple of days, monsoon shower and thunderstorm activity will return to near average across this region.

#### Expected Impacts

Risk of flash flooding and landslides.



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## Central China and western Japan

### **Weather**

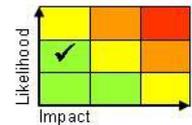
Heavy monsoon rainfall is expected across the region over the next seven days. Some places are likely to see 100-150mm per day in association with heavy and persistent rain across quite a wide area of this region. 300-500mm of rainfall is most likely in total across the wettest areas, which is above the average June rainfall in this region. There is also the potential for intense short period rainfall from thunderstorms.

### **Discussion**

Ongoing monsoon southerly flow into this area will continue to enhance moisture and wind convergence associated with the seasonal Mei-yu/Baiu front, leading to episodes of heavy rain and thunderstorms. Whilst the upper flow is not especially conducive to large-scale development, a number of shortwaves embedded within the flow will continue to trigger rainfall across a similar area along the quasi-stationary front, leading to large rainfall accumulations.

### **Expected Impacts**

Increased threat of further flash and fluvial flooding as well as landslides.



## Indonesia and Malaysia

### **Weather**

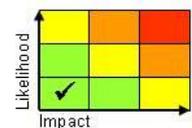
Above average rainfall will continue across this region in the form of heavy showers and thunderstorms. These will be capable of locally bringing 50 mm of precipitation in a short duration, with some locations likely to see 100-200 mm through the coming week. Average precipitation accumulations in June across this region is around 250 mm

### **Discussion**

One, potentially two Kelvin waves are expected to cross this region through the coming days bringing eastward moving zones of enhanced shower and thunderstorm activity.

### **Expected Impacts**

An increased risk of flash flooding and landslides in regions where terrain is steep.



## Australasia

Nil.

## Additional Information

### **Cox's Bazar, southeast Bangladesh**

See the *Western Myanmar and the far southeast of Bangladesh* section.

### **Western Yemen**

Isolated showers and thunderstorms are expected to be confined to the Western Highlands and higher ground inland and parallel to the Gulf of Aden coastline over the next week. Flash flooding is considered a very low likelihood.

**Issued at:** 190730 UTC      **Meteorologist:** Jason Kelly/Tony Wardle

**Global Guidance Unit**

**This forecast may be amended at any time**

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