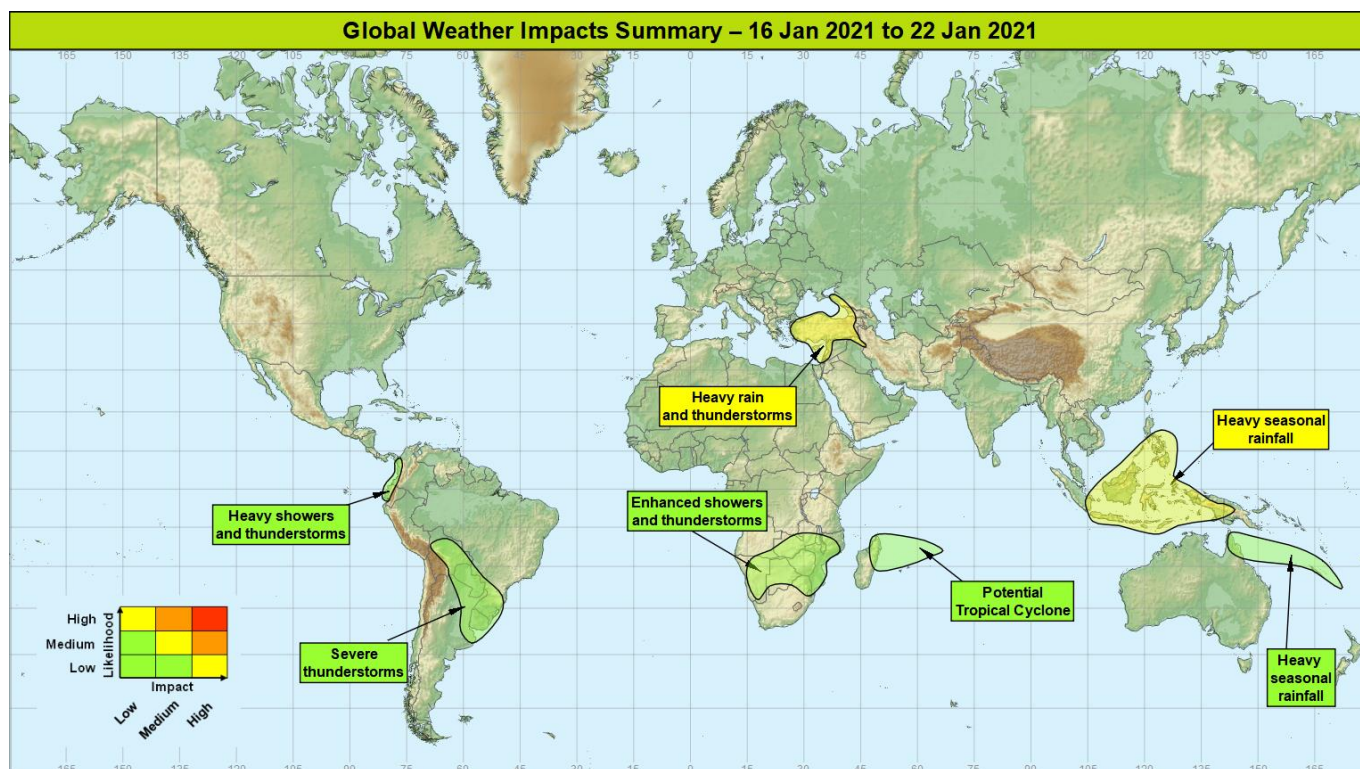


## **Global Weather Impacts – Saturday 16 January 2021 to Friday 22 January 2021**

Issued on Saturday 16 January 2021

### **HEADLINES**

- Tropical cyclone likely to move towards Madagascar or possibly Mascarene Islands next week.
- Heavy rain, thunderstorms and snow for parts of Southeast Europe and the Middle East.
- Heavy seasonal rainfall for the Maritime Continent and southern Africa.



### **DISCUSSION**

#### **Tropical Cyclones**

There are no named tropical cyclones at present.

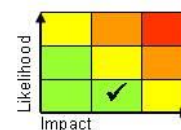
*The following area are being monitored for potential:*

#### **Southern Indian Ocean – Madagascar and Mascarene Islands**

##### **Weather**

There is an increasing signal for the development for tropical cyclone development over the next few days over the Central South Indian Ocean. Two areas are being monitored, with the westernmost of the two the only one with the potential to impact land. Should this form, then this is most likely to track to north of the Mascarene Islands, then towards the east coast of Madagascar by the middle of next week. However there is some significant uncertainty in the track (with a more southerly track affecting the Mascarene Islands possible) and intensity.

##### **Discussion**



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

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Strengthening signal from the models for an area of increasingly organised convection, associated with an Equatorial Rossby Wave, to develop into a tropical cyclone over the next few days across the western Indian Ocean. Overall a consistent signal for the evolution of this system initially, but increasing uncertainty for the intensity and track of this feature close to Madagascar and the Mascarene Islands. The majority of solutions favour a track towards the northeast of Madagascar by the middle of next week. At this stage a modest tropical cyclone looks most likely.

## **Expected Impacts**

Flooding (flash, riverine and coastal), landslides and damaging winds are all possible if this system makes landfall.

## **Europe**

**Black Sea Russia** – see Middle East section

## **North America**

Nil

## **Central America and Caribbean**

Nil

## **South America**

### **Ecuador and southwest Colombia**

#### **Weather**

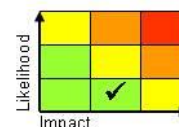
Frequent heavy showers and thunderstorms will affect this region through the next 5-7 days. The heaviest rainfall is expected across the western foothills, where daily totals of 75-150mm are possible. Overall totals this week may exceed 300mm, well in excess of the average rainfall for the month of January.

#### **Discussion**

Although the typical La Niña response has been observed through the boreal winter, a slightly anomalous onshore flow has developed across Ecuador and in particular western Colombia which is acting to enhance shower and thunderstorm activity against the western Andes.

#### **Expected Impacts**

Flash flooding. Enhanced risk of landslides.



### **Uruguay, Paraguay, far south of Brazil, Bolivia, far northeast Argentina**

#### **Weather**

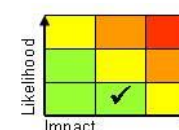
Severe thunderstorms and heavy rain are expected to push north across this region over the coming days then become slow moving across parts of south-eastern Brazil next week. Rainfall accumulations of 100-200mm may occur over a few hours which would exceed the typical January monthly rainfall (100-150mm). In addition to heavy rain, hail, strong winds and lightning are also likely.

#### **Discussion**

Monsoon moisture returning southwards in the wake of the most recent tropical convergence zone looks likely to be picked up a sharp upper trough over the weekend, allowing the development of severe and organised thunderstorms, along with heavy rain, moving slowly NE'wards ahead of the next strong cold front.

#### **Expected Impacts**

Flash flooding, and potential for landslides in steeper terrain. Possible power disruption and damage to crops and infrastructure.



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**Africa****Southern Africa****Weather**

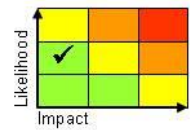
Heavy showers and thunderstorms will be more frequent than normal across a large part of southern Africa. Some thunderstorms are likely to be severe and accompanied by large hail, frequent lightning and gusty winds. Some places could see over 200mm through the next 7 days. Rainfall totals across the region as a whole will likely exceed normal rainfall for the whole of January. Early next week the rainfall looks likely to become heavier and more impactful across the northern part of this region, with locally in excess of 100 mm per day possible.

**Discussion**

Above average rainfall is a typical La Niña response across this region with a significant reduction in the environmental static stability, increasing the depth and frequency of convection. This is resulting in more frequent shower activity, especially within the moist mild tropical air across the region. Towards the weekend this drifting north, as a ridge gradually extends from the W/SW across the south of the area.

**Expected Impacts**

Flash flooding. Possible power disruption and damage to crops and infrastructure.

**Madagascar and the Mascarene Islands** – See *Tropical Cyclones* section**Middle East****Turkey, Cyprus and The Levant, Georgia and Black Sea Russia****Weather**

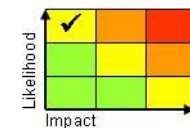
Periods of heavy rain and thunderstorm is expected to affect this region for much of the coming week. The heaviest rainfall is likely to be across the eastern Mediterranean, eastern Turkey and the northern border regions of Syria and Iraq. Totals of up to 200-250mm of rain are likely (average January rainfall in this region is 100-250mm); daily rainfall of up to 75-100mm is possible. Heavy snowfall is also expected across the interior of Turkey and also across Georgia and neighbouring Russia, as well as the Levant high ground from Monday.

**Discussion**

A major eastern European upper vortex will feed short wave upper trough features around the southern flank, with the marked forcing engaging the baroclinic zone to produce active frontal systems that will produce periods of very heavy precip, with embedded deep convection also likely. The high plateau of Turkey could see heavy snow accumulations at times, with the northern edge of this region also likely to see heavy snowfall. Cold advection will pose a snow threat to the Levant high ground from Monday.

**Expected Impacts**

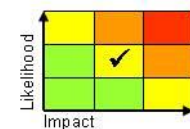
Flash and riverine flooding is the most likely impact, with steeper terrain seeing a threat of landslides. Disruption to snow also possible in areas mentioned above.

**Asia****Georgia** – see *Middle East* section**Southern and central Philippines, Brunei, East Malaysia, Indonesia and Papua New Guinea****Weather**

Heavy showers and thunderstorms are expected to continue being more frequent than normal through the next 7 days. Daily rainfall totals may exceed 100mm in places, this potentially falling in just a few hours. By the end of this period, a further 200-300mm may have accumulated in places, with some locations already close to or exceeding their January average.

**Discussion**

A combination of a La Niña background state, active phase of the MJO moving east into the Maritime Continent and strong cold surge pulses increasing convergence through the South China Sea all contribute to a continuation of the above average rainfall seen over recent weeks.



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**Expected Impacts**

Flash and riverine flooding. Enhanced threat of landslides especially across parts of Sulawesi which were impacted by a major earthquake on Friday (see additional information section below).

**Australia****Northeast Australia and New Caledonia****Weather**

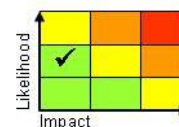
Shower and thunderstorm activity will be more organised than average across this region through the coming week. Daily rainfall totals of 100-200mm are possible with the potential for over 500mm by the end of the weekend in some locations. Whilst much of the region constitutes open water, these totals are in excess of the typical monthly rainfall for the islands in this region.

**Discussion**

As the MJO progresses into the Maritime Continent activity along the South Pacific Convergence Zone (SPCZ) continues to increase. An anomalously strong E'ly flow will bring more frequent than normal deep convection onto the coast of northern Queensland.

**Expected Impacts**

Flash flooding. Enhanced threat of landslides.

**Additional information**

Colder than average conditions will affect much of western Russia and parts of eastern Europe for at least the next 5 days. Overnight minima of -20 to -30°C is likely, this 10-15°C below the typical January average.

A magnitude 6.2 earthquake struck western Sulawesi, Indonesia at 02:31 UTC on Friday morning. This shallow quake caused extensive damage, including the destruction of a hospital, and a significant number of fatalities. Enhanced rainfall over the coming days are likely to hamper recovery efforts.

**Issued at:** 160600UTC      **Meteorologist:** Mark Sidaway

**Global Guidance Unit**

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