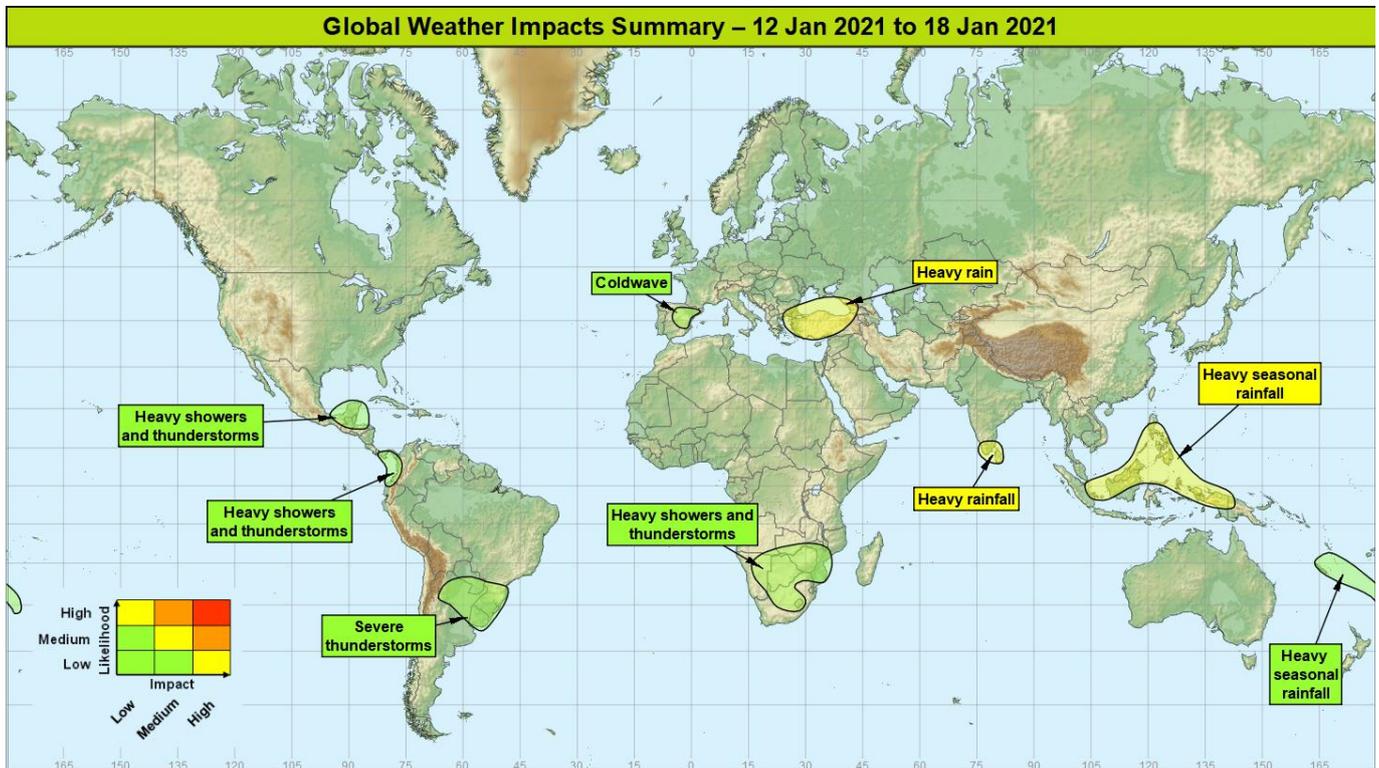


## Global Weather Impacts - Tuesday 12 January 2021 to Monday 18 January 2021

Issued on Tuesday 12 January 2021

### HEADLINES

- Unsettled conditions with heavy rain and snow for parts of southeast Europe.
- Heavy rainfall across areas of southeastern Asia, Sri Lanka and the far south of India



### DISCUSSION

#### Tropical Cyclones

There are no named tropical cyclones at the current time. There is the potential for a tropical cyclone to develop in the southern Indian Ocean over the next seven days but is currently expected to remain over open water.

#### Europe

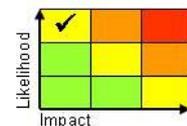
#### Turkey and surrounding countries

#### Weather

Unsettled conditions will affect this region over the coming days with a mixture of heavy rain and snow. The heaviest precipitation is likely to fall today (Tuesday) before rainfall transfers eastwards and begins to ease. Upwards of 100mm may affect parts of Greece, Bulgaria and western Turkey today, with the potential for daily totals of 40-60mm across Turkey and eastern Black Sea coastal regions in the coming days. Over higher ground, and possibly to lower levels in the north and northwest of the region, this will fall as heavy snow.

#### Discussion

A warm plume drawn northwards from Africa across Turkey will be engaged by an upper trough approaching from the west later today. The cold front that forms moves eastwards and will bring very high rainfall rates today before the upper forcing weakens and allows a slow reduction in activity Wednesday onward.



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

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## Expected Impacts

Flash and riverine flooding. Transport disruption and cold weather health impacts in association with snowfall.

## Spain

### Weather

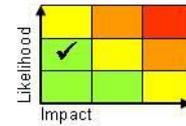
Significantly below-average temperatures are expected across areas of Spain until the middle of this week. Snow cover will only slowly thaw meaning very low overnight temperatures are possible, with minima as low as -10 to -15°C in places. There is also a risk of ice where snow melt freezes overnight.

### Discussion

Fine weather is expected across Iberia over the coming days, although snow cover affects large areas of northeast Spain. This is only slowly thawing with very low overnight minima and ice as a result.

### Expected Impacts

Transport disruption and cold weather health impacts.



## North America

Nil.

## Central America and Caribbean

### Belize, Guatemala, Honduras and Southeast Mexico

#### Weather

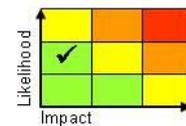
Frequent heavy showers and thunderstorms will affect this region over the coming days. Rainfall totals will vary significantly between different locations, although there is the potential for 200-300mm to accumulate by the end of the week. This is more than double the normal January rainfall for parts of this region.

#### Discussion

A tropical wave moving slowly northwestwards will be enhanced as it interacts with a low-latitude frontal system sweeping east across the Gulf of Mexico through the generation of surface convergence. This will then become the focus for heavy rainfall from frequent showers and thunderstorms before drier air filters into the region late this week.

#### Expected Impacts

Flash flooding, enhanced risk of landslides.



Costa Rica and Panama: See South America

## South America

### Colombia, Ecuador, Costa Rica and Panama

#### Weather

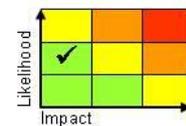
Frequent heavy showers and thunderstorms will affect this region over the coming days. The heaviest rainfall is expected across the western foothills, where daily totals of 75-150mm are possible. Overall totals this week may exceed 300mm, well in excess of the average rainfall for the month of January.

#### Discussion

Although the typical La Niña response has been observed through the boreal winter, an 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.



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## Uruguay, Northern Argentina, southern Paraguay and southern Brazil

### **Weather**

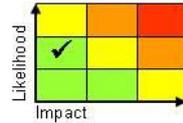
Severe thunderstorms and heavy rain are expected to affect parts of this region over the coming week. Rainfall accumulations of 100-200mm may occur over a few hours which would exceed the typical January monthly rainfall (100-150 mm). In addition to heavy rain, hail, strong winds and lightning are also likely.

### **Discussion**

Monsoon moisture, having been brought southwards in recent days, will move northwards as a cold front moves across the region later today. Once the front clears to the east a ridge builds in its wake, allowing a renewed southward extension of tropical moisture over the region.

### **Expected Impacts**

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



## Africa

### Southern Africa

### **Weather**

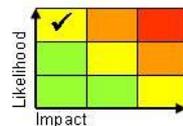
Heavy showers and thunderstorms will be more frequent than normal across a large part of southern Africa. Some thunderstorms are likely to be severe and accompanied by large hail, frequent lightning and gusty winds. The highest rainfall totals will probably be across Namibia and Botswana where over 200mm is possible by the end of the week. Rainfall totals across the region as a whole will likely exceed normal rainfall for the whole of January, although the enhanced rainfall appears to be a positive for many areas.

### **Discussion**

Above average rainfall is a typical La Niña response across this region with significant circulation changes, particularly in the upper troposphere, where upper level divergence is contributing to increased mass ascent. Across the tropics this is resulting in more frequent shower activity each day whilst further south tropical moisture is drawn south ahead of upper troughs within the mid-latitude flow.

### **Expected Impacts**

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



## Middle East

Nil.

## Asia

### Philippines, Borneo, Brunei, Singapore, parts of Malaysia, Indonesia and Papua New Guinea

### **Weather**

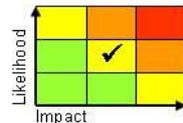
Heavy showers and thunderstorms are expected to be more frequent than normal through the coming week. Daily rainfall totals may exceed 100mm in places, this potentially falling in just a few hours. By the end of the week 300-400mm may have accumulated in places, this equivalent to the average monthly rainfall for January.

### **Discussion**

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

### **Expected Impacts**

Flash flooding. Enhanced risk of landslides.



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## Southern India and Sri Lanka

### **Weather**

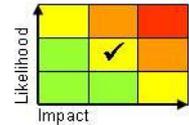
Frequent heavy showers and thunderstorms are expected to continue across the region through the next few days before activity should return to nearer normal for the time of year. Eastern Sri Lanka and southern Tamil Nadu appear most likely to receive the heaviest rainfall during this time with 200-300 mm likely.

### **Discussion**

An equatorial Rossby wave will transfer slowly west across the southern tip of India and Sri Lanka over the next 2 days before moving out over the open water of the Arabian Sea.

### **Expected Impacts**

Flooding impacts are expected to continue through the next several days with further disruption to transport whilst an increased risk of landslides and rock falls pose a risk to property and life.



## Australia

### Southwest Pacific Islands, mainly New Caledonia and Vanuatu

### **Weather**

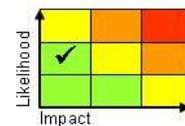
Shower and thunderstorm activity will be more organised than average across this region through the coming week. Daily rainfall totals of 100-200mm are possible with the potential for over 500mm by the end of the week in some locations. Whilst much of the region constitutes open water, these totals are 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) generally increases, with this looking to be the case over the coming week. In addition the southern part of the convergence zone will be engaged by a shortwave trough in the subtropical jet, developing a subtropical like cyclone (with a shallow asymmetric warm-core over open ocean).

### **Expected Impacts**

Flash flooding. Enhanced risk of landslides.



## Additional Information

Cold conditions across western Russia are likely to spread into Belarus and some other parts of eastern Europe later this week. Overnight minima of less than -20°C are possible by the weekend, this 10-15°C below the typical January average.

A marked coldwave is also underway across much of southeast Asia, including southern China, Laos, northern Vietnam and Thailand. Maximum and minimum temperatures in the region are depressed by as much as 5-10°C, meaning uncomfortably cold nights for those without heating and adequate shelter and clothing.

Issued at: 120800 UTC Meteorologist: David Oliver/Tony Wardle

Global Guidance Unit

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