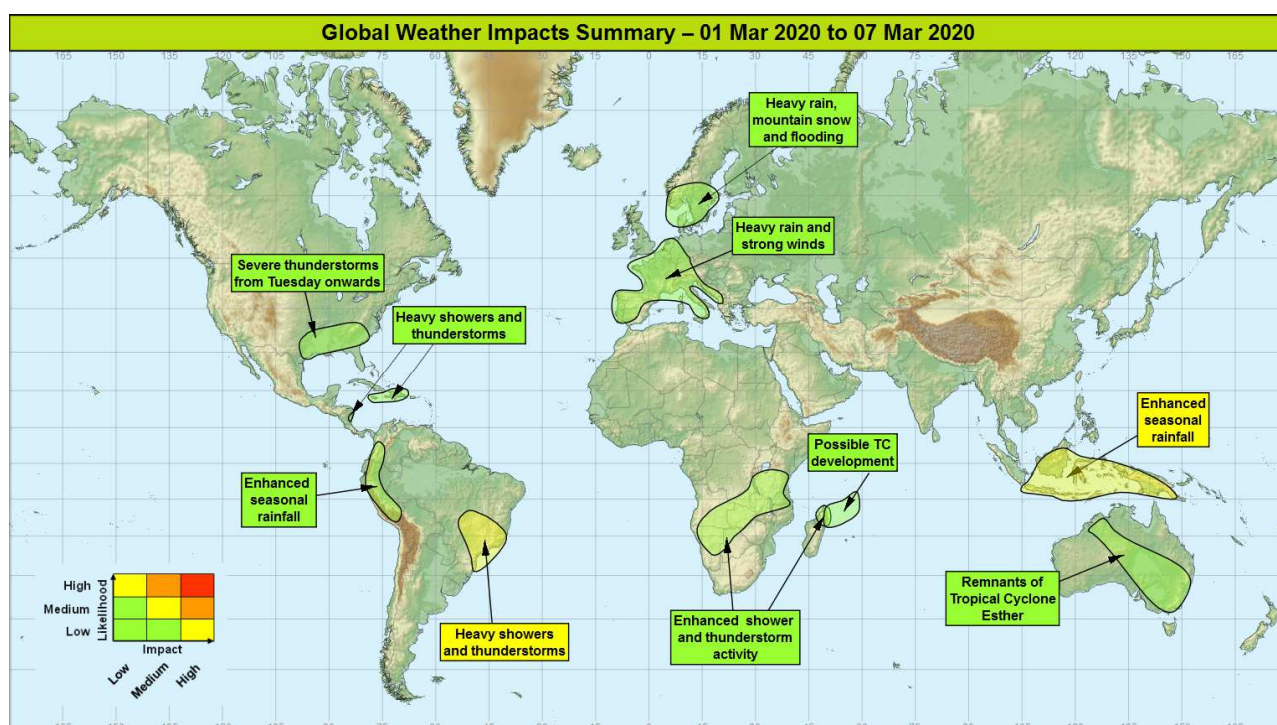


Global Weather Impacts – Sunday 1st to Saturday 7th March 2020

Issued on Sunday 1st March 2020

HEADLINES

- Further heavy rainfall across parts of south-eastern Brazil.
- Enhanced seasonal rainfall continuing across Indonesia.
- Low risk of tropical cyclone development north-east of Madagascar next week.
- Remaining unsettled across parts of Europe with heavy rain, hill snow and strong winds.



DISCUSSION

Tropical Cyclones

There are currently no named tropical systems globally.

The following area is being monitored for potential tropical cyclone (re)development:

South West Indian Ocean.

Weather

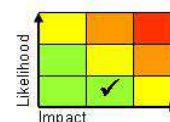
There remains a weak signal from models for a possible development to the north-east of Madagascar in the mid to latter part of the week. Any system which forms may subsequently threaten torrential rain and strong winds to Madagascar, which has already been particularly wet in recent weeks.

Discussion

The emerging MJO in the Indian Ocean may be the catalyst for development of a system in this region. There is a signal for development across a spread of models, although at this stage most suggest any development may be weak.

Expected Impacts

Risk of flooding rains and damaging winds to Madagascar.



This forecast may be amended at any time

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Europe

Southern and western Europe

Weather

Remaining very unsettled across much of Europe well into the coming week as a series of low pressure systems track east into the continent. After a very wet period for north-western Europe, the focus will shift further south this week, with Iberia, parts of Italy and the Balkans becoming more prone. One of these systems has been named Storm Karine by the Spanish Met Service (AEMet). Much of the region highlighted will see 25-50 mm of precipitation through the period, with some places seeing in excess of 200 mm, perhaps as much as 300 mm for parts of the Balkans coast by midweek. This suggests that many places could see the average March rainfall in the first week of the month.

Discussion

A strongly positive NAO pattern continues, driven by various cold air outbreaks across the northeast of North America. These strengthen the PFJ across the Atlantic, which then helps to spawn areas of low pressure that move quickly northeast and bring unsettled conditions to much of western Europe. The PFJ is expected to move further S, shifting the focus for heavy rain and strong winds to countries bordering the Mediterranean in the coming week.

Expected Impacts

Winds may locally be strong enough to cause some damage to infrastructure, although travel disruption is the most likely impact from wind. Heavy rainfall could produce flash flood impacts, these perhaps most likely across parts of Italy and The Balkans next week. Conversely the rainfall may be welcomed across parts of central Europe which has seen relatively little rainfall this winter.



Southern Scandinavia

Weather

Heavy rain and mountain snow, associated with the remnants of Storm Jorge will affect the area through to Monday. Most of the precipitation at low-levels will be rain on Sunday, before colder conditions spread from the north and snow develops more widely on Monday. Around 30-50 mm of rain is expected to fall widely with up to 125 mm in the wettest spots, most likely across southern Norway. This additional rainfall follows a very wet period and the region is more susceptible to flooding. Around 30-50 cm of snow is likely in inland, upland areas.

Discussion

A frontal system associated with Storm Jorge will become slow-moving over southern Scandinavia into Monday. Early next week, cold advection from the north will allow a marked cold undercut to develop with rain turning to snow at low-levels, but at the same time probably easing causing little disruption. There is ongoing significant river flooding in southern Sweden, with this additional rainfall probably exacerbating the current situation.

Expected Impacts

Further flooding is likely, especially across parts of southern Sweden where several rivers are currently in flood. Urban areas such as Stockholm and Oslo could be impacted. Further inland, especially over high ground in Norway, significant travel disruption due to snow is possible.



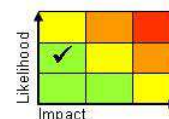
North America

Southern USA

Weather

Potential for severe thunderstorms to break out from Tuesday or Wednesday across the deep south of the USA. Intense rainfall, strong winds, large hail and perhaps a few tornadoes are possible. Some locations could see as much as 100 mm fall in a few hours, with perhaps 200 mm over the course of a few days. Later in the week a potent depression may form in a similar area, further enhancing rainfall across this region.

Discussion



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A high WBPT plume will move north from the Gulf of Mexico ahead of an upper trough extending E/SE from the Rockies. Strong forcing from the upper trough will destabilise the plume allowing thunderstorms to break out. The most severe storms will be in the warm sector where high CAPE and windshear lead to potential for supercells to develop and the hazards associated with these such as large hail and tornadoes. Later in the week models suggest an unusually low latitude trough / vortex will engage the warm plume and allow a potent depression to develop.

Expected Impacts

Flash flooding possible along with damage to property and crops from hail and/or strong winds.

Central America

Nicaragua, Hispaniola and Jamaica

Weather

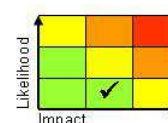
Out-of-season heavy rain is expected to affect parts of Caribbean over the next few days. Showers will be heavy and frequent, with accumulations of 25-50 mm possible daily and up to 100 mm in places by early next week. The heaviest rain is now moving away from Honduras, where some places have seen over 300 mm of rainfall through the past couple of days.

Discussion

A slow moving cold front, combined with a surge of strong NE winds leading to enhanced low-level convergence has increased the intensity and frequency of showers in the region. As winds ease into next week, so should the intensity of the showers.

Expected Impacts

Flash flooding and disruption to travel is expected. Possible increase in the risk of landslides.



South America

Southwest Colombia, Ecuador, Peru and Bolivia

Weather

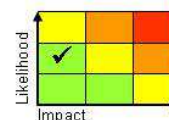
Enhanced shower and thunderstorm activity will continue across the central and northern Andes through this coming week. Precipitation totals could locally reach 200-300 mm, which would represent more than the average for the whole of February.

Discussion

Continued northerly flow across Central America will lead to stronger than normal convergence along the ITCZ, bringing enhanced precipitation, especially in the north of this region. Precipitation across this area has been above average in recent weeks, with impacts from flash flooding and landslides reported widely.

Expected Impacts

Ongoing enhanced threat of flash flooding and landslides.



Southeastern Brazil

Weather

Heavy showers and thunderstorms will affect the region over the next week. Around 50-100 mm could fall each day, with a few locations having up to 300 mm in total for the week, equivalent to a month's worth of rain. Major urban areas such as Sao Paulo and Rio de Janeiro could be affected.

Discussion

The South Atlantic Convergence Zone (SACZ) will remain active for at least the next 5 days as several mid-latitude upper troughs relax NE and interact with the monsoon plume. Forecast profiles are very moist at depth, with relatively modest CAPE, suggesting high rainfall efficiently and the potential for large accumulations.

Expected Impacts

Heavy rain will bring a risk of flash flooding and landslides, particularly in mountainous terrain. Larger cities such as Rio de Janeiro and Sao Paulo could see these impacts.



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Africa**Southern and eastern Africa (including Madagascar)****Weather**

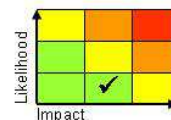
Heavy showers and thunderstorms are expected to remain more widespread and intense than usual for the time of year. Rainfall accumulations will vary from location to location but some places may receive up to 50 mm in one or two hours, with between 100-200 mm possible in some places by the middle of next week. This would represent close to a month's rainfall for many places in this region.

Discussion

As has been the case for several months, rainfall is expected to remain above-average for another week, probably due to the re-emergence of an active MJO in the western Indian Ocean. Further south, rainfall patterns will be more influenced by mid-latitude patterns. After a lull in activity, thunderstorms, locally severe, could become more widespread again across Namibia and perhaps parts of Botswana as an upper trough relaxes NE early this week.

Expected Impacts

Increased risk of flash and river flooding, as well as localised disruption to transport and damage to infrastructure, property and crops.

**Middle East**

Nil.

Asia**Indonesia and Papua New Guinea****Weather**

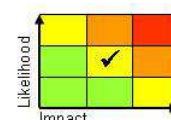
Enhanced seasonal rainfall is expected to continue, mainly across the islands of Borneo and Java. 50-100 mm of rain could fall in places in any one day, more likely in the space of a few hours, with a few areas seeing up to 250 mm over the next seven days. This would be close to a month's rainfall for somewhere like Jakarta. This comes on top of the repeated incidents of flooding seen in the region recently.

Discussion

Convergence will be enhanced across this region both along the ITCZ, mostly probably due to enhanced south to southwesterly flow over the Indian Ocean and Timor Sea from recent tropical cyclone activity in the region. Convergence will be focused over Java in particular.

Expected Impacts

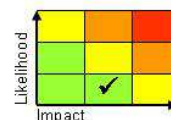
Further flash flooding looks like the most likely impact with the additional risk of further landslides in mountainous areas.

**Australasia****Northern, central and parts of eastern Australia****Weather**

The remnants of Tropical Cyclone Esther will turn southeast and track into the interior of Australia through Sunday, then accelerate south-eastwards to reach south-eastern Australia later this week. Over the next couple of days this may produce over 300 mm in places, the 100-150 mm later this week along its path.

Discussion

Tropical Cyclone Esther formed from an Equatorial Rossby Wave (ERW) in the Gulf of Carpentaria last Monday. The system made landfall and weakened from cyclone strength but remains an organised tropical low sustained by the moist surfaces it overlies. Models currently suggest the ex-cyclone will remain slow moving for another 24 hours or so, before being driven south-eastwards across eastern Australia ahead of an upper trough, perhaps reaching the more populous region of south-eastern Australia later next week.

Expected Impacts

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Both flash and river flooding are likely across the area of north-western Australia. Following a transit across the largely unpopulated interior, the system threatens heavy rainfall and flood impacts for the south-east of the country later next week.

Additional Information

Nil.

Issued at: 010300UTC **Meteorologists:** Mark Sidaway / Paul Hutcheon **Global Guidance Unit**

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