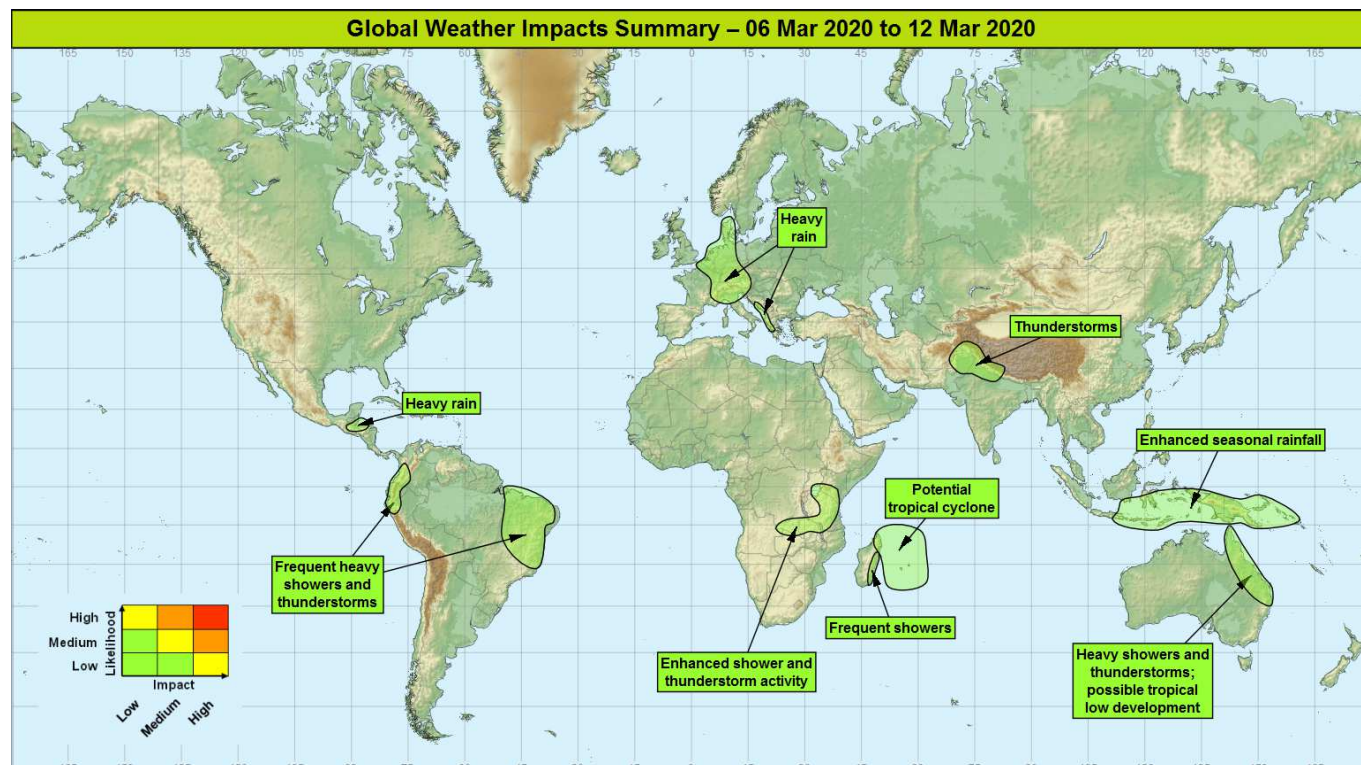


Global Weather Impacts – Friday 6th to Thursday 12th March 2020

Issued on Friday 6th March 2020

HEADLINES

- Further enhanced seasonal rainfall for parts of Indonesia and east Africa.
- Further heavy rainfall for Madagascar and possible tropical cyclone development.
- Possible tropical low development in northern Queensland, Australia, next week.



DISCUSSION

Tropical Cyclones

There are currently no active tropical cyclones.

The following area is being monitored for potential tropical cyclone development affecting land over the next week:

Southwest Indian Ocean (Madagascar, Mascarene Islands)

Weather

An area of disturbed weather is located to the east of Madagascar and north of La Reunion, with potential for a tropical cyclone to develop over the next week. Confidence is currently very low with respect to the track/intensity of any system should it develop.

Discussion

The combination of an equatorial Rossby wave and above normal SSTs in this region is leading to increased convective activity, but the development of a tropical cyclone over the next few days seems to be mitigated against by strong vertical wind shear across the region. Models have been very inconsistent with developments in this region, and have lately backed away from the idea of any system impacting northeast Madagascar. As shear relaxes later this week/early next week, there is a greater threat of a more substantial system which could bring strong winds and large rainfall to this region.

Expected Impacts

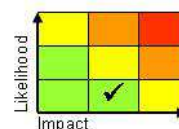
Low risk of flooding and damaging winds.

This forecast may be amended at any time

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Europe**Central Europe****Weather**

Early next week, an area rain and mountain snow is expected to cross affect central Europe, with the western Alps prone to seeing the larger rainfall totals. 40-70 mm is likely in a 12-18 hour period, with the most prone spots seeing as much as 100 mm. Conditions should improve midweek. Strong winds are also expected, particularly for Denmark and northern parts of the Netherlands, Germany and Poland. Some easing of the rainfall is expected on Wednesday but a further spell could affect similar areas on Thursday.

Discussion

A complex area of low pressure is expected to move across the UK into Scandinavia early next week. Well-forced frontal zones are expected to give widespread rainfall, with a particular focus on parts of the Massif Central and the western Alps. As the forcing overruns the frontal zone on Wednesday the rainfall should ease, but another wave depression could form along the trailing baroclinic zone into Thursday to bring another spell of rainfall to these areas.

Expected Impacts

Increased risk of flash flooding in faster responding catchments. Increased risk of river flooding, particularly given recent wetter than normal conditions. Rapid rise in freezing levels will increase avalanche risk in the mountainous regions.

**Eastern Adriatic coastline countries****Weather**

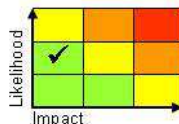
An area of wind, rain and mountain snow is expected to spread across this region on Friday and early Saturday, with a particular focus on the western slopes of the Dinaric Alps for large rainfall totals. 100-150mm of rain could build up over a 24 to 36 hour period in many places. This will be followed by heavy, thundery showers, but these will be more scattered and not focussed over high ground in particular.

Discussion

The area of low pressure which moved across France on Thursday will continue eastwards, its occluding frontal plume remaining well forced as the narrowing warm sector heads towards this region. As the upper trough extends, the low-level system will decelerate, to give a more prolonged spell of orographic rain/snow over the Dinaric Alps. Heavy showers associated with the trough will follow the front, giving some short period large totals on top of that already fallen.

Expected Impacts

Increased risk of river, and later flash flooding as the showers arrive on top of the recent heavy rain. Increased avalanche risk in the Dinaric Alps.

**North America**

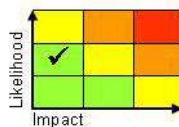
Nil.

Central America**Belize and northern Honduras****Weather**

Heavy showers and thunderstorms are expected to become more frequent from Saturday through to Tuesday with the heaviest rainfall affecting coastal parts of Belize and the north Honduras coast. During this period, 150-250 mm of rainfall is possible, much of which is likely to fall in short periods. This is the dry season for this region and whilst monthly averages exceed 100 mm during the months of May to December, this is nearer 30-50 mm in March.

Discussion

Cyclogenesis over southeast USA and a strong build of pressure in its wake will drive a cold front into the tropics with a strengthening of the trade winds ahead of it across the western Caribbean Sea. This will support an out-of-season increase in shower and thunderstorm activity driven onshore across Belize and northern Honduras.



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Expected Impacts

This spell of heavy rain follows flooding that affected northern Honduras at the end of February. This may exacerbate existing relief efforts and cause further flash and river flooding.

South America

Southwest Colombia, Ecuador and Peru

Weather

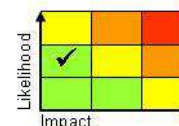
Enhanced shower and thunderstorm activity will continue across the northern Andes through the next week. Precipitation totals could reach 200-300 mm in places, which would represent more than the average for the whole of February.

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 parts of this area has been above average in recent weeks, with impacts from flash flooding and landslides.

Expected Impacts

Ongoing enhanced threat of flash flooding and landslides.



Eastern Brazil

Weather

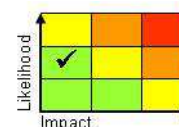
Heavy showers and thunderstorms will affect the region during this week. Around 50-100 mm could fall each day, with a few locations having up to 300 mm in total for the week, equivalent to a month's worth of rain.

Discussion

The South Atlantic Convergence Zone (SACZ) will remain active through this week with several mid-latitude upper troughs relaxing northeast and to interact with the monsoon plume. Forecast profiles are very moist at depth, with relatively modest CAPE, suggesting high rainfall efficiency and the potential for large accumulations.

Expected Impacts

Heavy rain will bring a risk of flash flooding and landslides, particularly in mountainous terrain.



Africa

Eastern Madagascar (particularly the southeast)

Weather

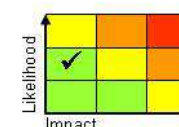
A temporary increase in shower/thunderstorm activity aided by a strengthening easterly wind is expected in this region from Friday or Saturday, with conditions probably improving somewhat by Monday, although this latter aspect is somewhat dependent on any tropical cyclone developments (see *Tropical Cyclones* section). 50-75mm is possible in some places per day, with 175-250mm building up on west facing mountainous regions through a 3-4 day period.

Discussion

Within the background of a more active pattern generally in this region (see Tropical Cyclone section), an equatorial Rossby wave is expected to generate enhanced shower and thunderstorm activity as it drifts slowly westwards across south Madagascar over the next few days. This aspect carries more confidence than any enhanced rainfall associated with tropical cyclone activity, which should it occur will probably more impact the north-east anyhow. Showers will ease late in the weekend/early next week as the ERW passes by.

Expected Impacts

Increased risk of flash, and later river flooding, plus an increased landslide risk in mountainous areas.



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Parts of Uganda, Kenya, Tanzania, Malawi, Zambia, DRC and Angola

Weather

Heavy showers and thunderstorms will be more widespread than usual over the next week. Rainfall accumulations will vary between locations but some places may receive up to 50 mm in just a couple of hours, with around 100-200 mm possible in some areas by the end of the week. This would be close to a month's rainfall for many places in this region.

Discussion

An active phase of the South Indian Ocean Convergence Zone is expected to enhance the seasonal rainfall in these areas over the next 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, Malaysia, Papua New Guinea, and Solomon Islands

Weather

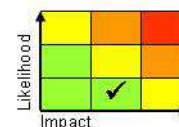
Enhanced seasonal rainfall is expected to continue fairly widely across this region. Rainfall totals of widely 50-100 mm, and locally 150-250 mm are expected in frequent daily rounds of showers and thunderstorms

Discussion

The active phase of the MJO is currently moving through this region, providing a backdrop of enhanced convection and rainfall. Smaller scale features, such as a Kelvin wave, will also locally enhance rainfall over the coming days as it moves through Sulawesi and Papua New Guinea. Further tropical waves are likely over the coming days. Some parts of this region, including West Java, have recently seen severe flooding, although it seems likely that the worst of the conditions will stay clear of Jakarta in this current episode.

Expected Impacts

Flash flooding possible in places. Also a risk of landslides in mountainous areas.



Northern Pakistan, northern India and Nepal

Weather

Heavy showers and thunderstorms are expected to develop across Pakistan today before extending east towards Nepal and northern India through Friday and Saturday with drier conditions following in their wake. There is the potential for 50-75 mm of rain to locally fall in a couple of hours, in addition to frequent lightning, gusty winds and large hail.

Discussion

A Western Disturbance (upper trough in the subtropical jet stream) is expected to move east across the region through to Saturday, engaging the increasingly warm low-level airmass south of the Himalayas. Forecast profiles exhibit steep mid-level lapse rates supportive of some hail, with vertical wind shear supportive of upscale development into one or more MCSs.

Expected Impacts

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



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Australasia**North and northeast Queensland, Australia****Weather**

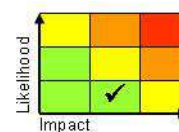
Further heavy rain and severe thunderstorms associated with the plume of warm air drawn south by the remnants of Tropical Cyclone Esther are expected in this region over the next few days, with 50 to locally 100mm of rain in some places, and a risk of frequent lightning and large hail. Not everywhere will see these initially, but into next week there is potential for a tropical low to form close to northern Queensland which, if it does so, will enhance the risk of showers and storms more widely.

Discussion

The remnants of Tropical Cyclone Esther are now heading out across the open ocean away from Australia, but have left a plume of tropical moisture stretching from the Gulf of Carpentaria down towards the east coast Queensland. Within this plume, further heavy showers and thunderstorms are expected given forecast profiles support moderate instability and shear. Early next week the monsoon trough is expected to strengthen, with the possibility that a tropical low could form in the Gulf of Carpentaria or the Coral Sea. Model output currently suggests that this could then strengthen into a tropical cyclone with a possible track southeastward along the Queensland coast.

Expected Impacts

Localised flash flooding is expected, with potential for mudslides/debris flows should the rain impacts areas recently scarred by bushfires. Isolated large hail/frequent lightning impacts possible. Should a tropical low form and develop into a cyclone, damaging winds could be an additional impact.

**Additional Information**

Nil.

Issued at: 060645 UTC **Meteorologists:** Laura Ellam / Matthew Lehnert

Global Guidance Unit

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