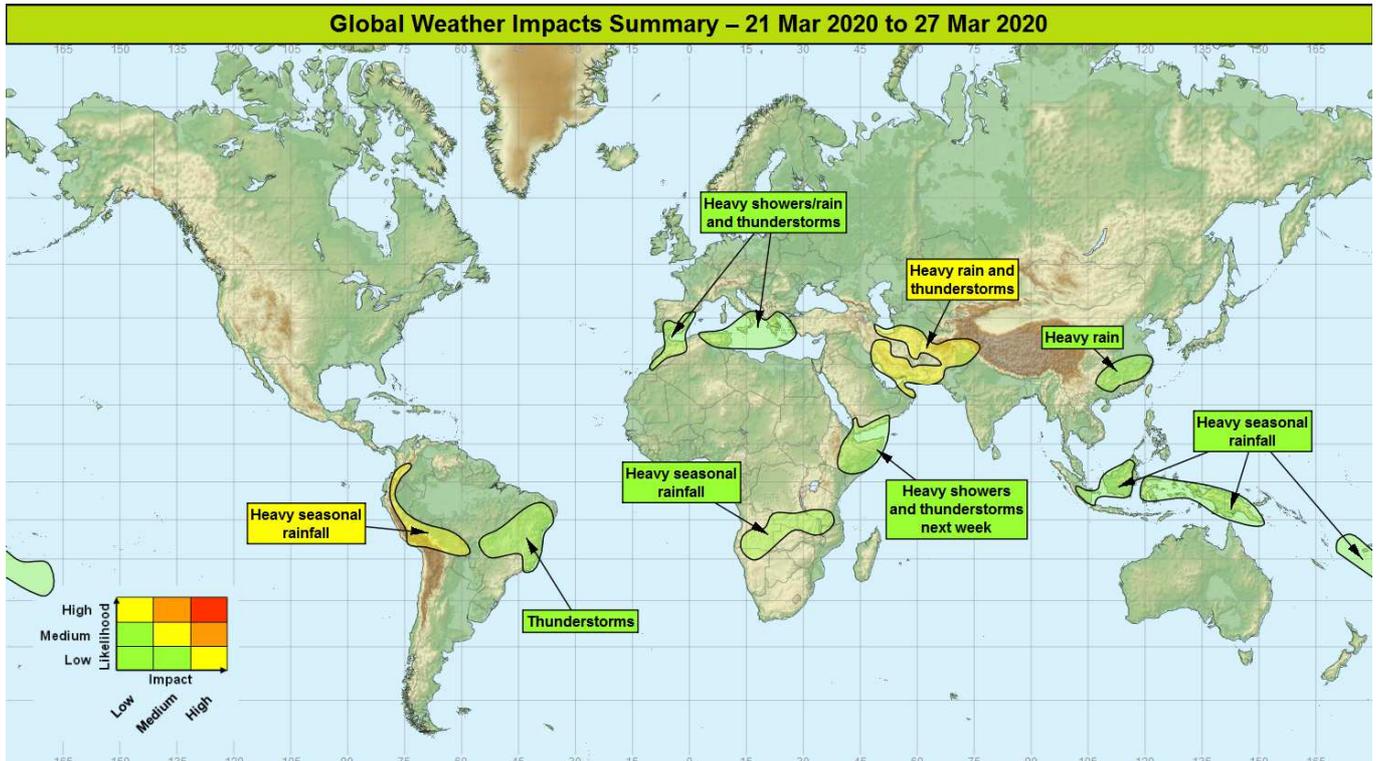


Global Weather Impacts – Saturday 21st to Friday 27th March 2020

Issued on Saturday 21st March 2020

HEADLINES

- Heavy rain and thunderstorms transferring east across the Middle East into southwest Asia.
- Ongoing above average rainfall and landslide threat affecting the northern Andes.
- Heavy rain expected to affect parts of Yemen and the Horn of Africa next week.



DISCUSSION

Tropical Cyclones

There are currently no named tropical cyclones expected to affect land over the next 7 days.

Europe

Iberia and Morocco

Weather

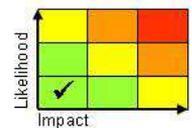
Scattered slow-moving heavy showers and thunderstorms are expected to continue across Morocco and southern and eastern parts of Spain. Locally 40-60 mm of rainfall is possible in 6 hours which is equivalent to over the monthly average for southwestern Iberia (e.g. 36 mm in Seville).

Discussion

A cut-off low over western Iberia will be reinforced by another trough disruption this weekend and engage a modest warm plume across southern and western Iberia and Morocco over the next few days. The weak steering flow will favour locally significant rainfall totals across the region. The rainfall should finally ease from southern Spain and Morocco by midweek.

Expected Impacts

Localised damage to property and infrastructure from flash flooding.



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The north of Algeria and Tunisia, Malta, southern Italy, Greece, far western Turkey

Weather

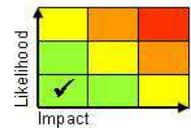
Scattered heavy showers and thunderstorms are expected over the coming week, the focus initially over north Africa but extending eastward through the region with time. An area of low pressure is expected to develop midweek and provide focus for more organised and heavy rainfall, particularly across Malta, southern Italy and Greece. Some of the wettest areas could see 100-150 mm of rainfall in total, roughly twice the typical March rainfall in the region.

Discussion

A complex combination of upper vortices crossing northern Africa promoting cyclogenesis, and a trough disruption occurring over central Europe driving a cold front southeastward, will provide focus for areas of heavy rain and thunderstorms through the region over the coming week. There is reasonable model agreement for a low to develop between Malta and Libya by midweek, with which the heaviest and most organised rainfall is expected to be associated.

Expected Impacts

Increased risk of surface and river flooding. Risk of landslides where terrain is steep.



North America

Nil significant.

Central America

Nil significant.

South America

Southern Colombia, Ecuador, Peru and northwest Bolivia

Weather

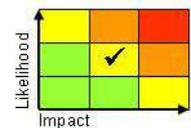
Enhanced shower and thunderstorm activity will continue across the northern Andes at times through the next week, with a peak in activity expected this weekend. Rainfall accumulations could reach up to 250 mm in places, which would represent more than the average for the whole of March.

Discussion

Whilst the constructive interference of a westward and eastward inertio-gravity wave led to enhanced convection across the region over the past couple of days, a Kelvin wave in the eastern Pacific is expected to maintain enhanced convection along the ITCZ over South America over the next few days as it transfers east.

Expected Impacts

Ongoing threat of flash flooding and landslides in a region where the ground is already saturated from recent above-average rainfall.



Eastern Brazil

Weather

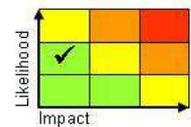
An active cold front will move north through eastern parts of Brazil through the next week. This will be accompanied by a combination of heavy rain and locally severe thunderstorms capable of producing frequent lightning, strong winds and large hail. Some locations could see 75-150 mm in a few hours. Following a wet day on Saturday, Rio de Janeiro should improve markedly as the focus of the precipitation moved northwards.

Discussion

The South Atlantic Convergence Zone (SACZ) will transfer north and become more active as forcing from a series of upper troughs associated with a north-shifting jet engages the SACZ.

Expected Impacts

Heavy rain is likely to trigger flash flooding with multiple hazards from severe thunderstorms including localised property/infrastructure damage and risk to life. Localised property and infrastructure damage from lightning, strong winds and hail possible too.



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Africa

Morocco, Algeria and Tunisia – See *Europe* section.

Namibia, southeast Angola, Zambia, Malawi, northwest Mozambique and southern Tanzania

Weather

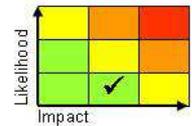
Scattered heavy showers and thunderstorms are expected to affect a broad region of central southern Africa through the next week. These could locally produce 50-75 mm of rainfall in a few hours, with a few locations likely to receive 150-200 mm over the next seven days. The heaviest rainfall is expected to be along a line from southwest Angola to the Tanzania/Mozambique border.

Discussion

The emergence of the MJO across Africa over the next week is expected to result in an increase in shower and thunderstorm activity across this region over the next week.

Expected Impacts

Increased risk of surface water and riverine flooding from heavy rainfall, particularly in southern Tanzania where impacts from flooding have already been reported. Areas of Angola (Cuanza Sul, Malanje and Luna Sul) which experienced recent heavy rainfall are likely to be spared significant rainfall.



Middle East

UAE and northern Oman – See *Asia* section.

Horn of Africa and Yemen

Weather

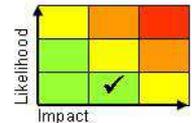
Shower and thunderstorm activity is expected to be widespread through to the middle of next week across Western Highland and southern coastal areas of Yemen and the wider Horn of Africa region. Some locations could see 20-30 mm in a few hours, which would exceed the average monthly rainfall for most places.

Discussion

An upper trough extending across the Arabian Peninsula is likely to engage a plume of tropical moisture being drawn northward from Horn of Africa through to the middle of next week. This is expected to trigger more frequent shower and thunderstorm activity, particularly over highland areas of Yemen compared to recent weeks, as well as result in early heavy rainfall across the Horn of Africa.

Expected Impacts

Increased likelihood of flash flooding and an enhanced risk of landslides where terrain is steep. In addition these conditions often increase the risk of cholera attacks.



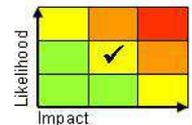
Asia

Iran, Afghanistan, northern Pakistan, UAE and northern Oman

Weather

Two episodes of heavy rain and scattered thunderstorms are expected to affect the region during the next week. The first will affect Afghanistan and northern Pakistan through Saturday. A brief reprieve follows but will be followed by a further spell of disturbed weather from Sunday to Wednesday, initially across the Persian Gulf before moving northeast. Frequent lightning, large hail and strong winds with dense dust storms also likely. The heaviest rainfall is expected over higher ground of Iran, Afghanistan and northern Pakistan where 50-75 mm locally 150 mm is possible and is equivalent to the typical monthly rainfall for March.

Discussion



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The Western Disturbance that was responsible for exceptionally heavy rain across parts of the Levant earlier this week is now transferring east across southwest Asia. Once this departs, another trough disruption will occur across a similar region bringing a renewed threat of heavy rainfall, enhanced orographically over parts of Iran, Afghanistan and Pakistan as well as with embedded deep convection.

Expected Impacts

Surface water and riverine flooding (with a contribution from snow melt) and landslides look like the most likely impacts. Lightning and wind damage also likely, with dense dust storms possibly impacting on human health.

Malaysia and western Indonesia

Weather

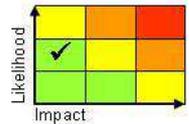
Shower and thunderstorm activity is expected to remain more widespread than normal over the next week with many places receiving 50-100 mm during this time, with 250 mm in a few places. The heaviest rain is expected to occur over Kalimantan and the west coast of Sumatra.

Discussion

Convection along the ITCZ is expected to be more widespread as a Kelvin wave transfers east across the region over the next few days.

Expected Impacts

Increased risk of flash flooding, particularly in areas that have been affected by recent heavy rainfall e.g. West Java including Jakarta.



Eastern China

Weather

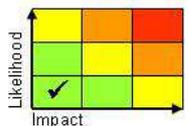
A spell of locally heavy rain is expected to develop across eastern China from Saturday. Whilst rainfall intensity should reduce on Sunday, further heavy rain and thunderstorms are possible are expected to affect a similar region early next week. During this period, up to 125-175 mm is locally possible, half of which may fall in under 24 hours, and would be equivalent to around the average March rainfall for this area.

Discussion

An upper trough is expected to emerge from the Himalayas and engage a plume of tropical air being drawn northward ahead of it across eastern China. Cyclogenesis will lead to an area of locally heavy rain developing across the region on Saturday. The baroclinic zone becomes slow-moving thereafter and prone to further engagement into early next week as shortwave upper troughs overrun it.

Expected Impacts

Localised flash flooding causing damage to property and infrastructure.



Australasia

Papua New Guinea, Fiji and Tonga

Weather

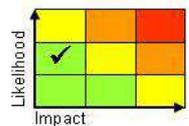
Enhanced seasonal rainfall is expected across this region through the next seven days due to more widespread thunderstorms activity. Up to 50-100 mm of rain could fall in just 12 hours, with event totals of up to 350 mm likely.

Discussion

The South Pacific Convergence Zone looks likely to be more active than usual through much of this week, partly in response to a Kelvin wave moving east from the Maritime Continent.

Expected Impacts

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



Additional Information

Nil.

Issued at: 210530 UTC **Meteorologists:** Laura Ellam / Matthew Lehnert **Global Guidance Unit**

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