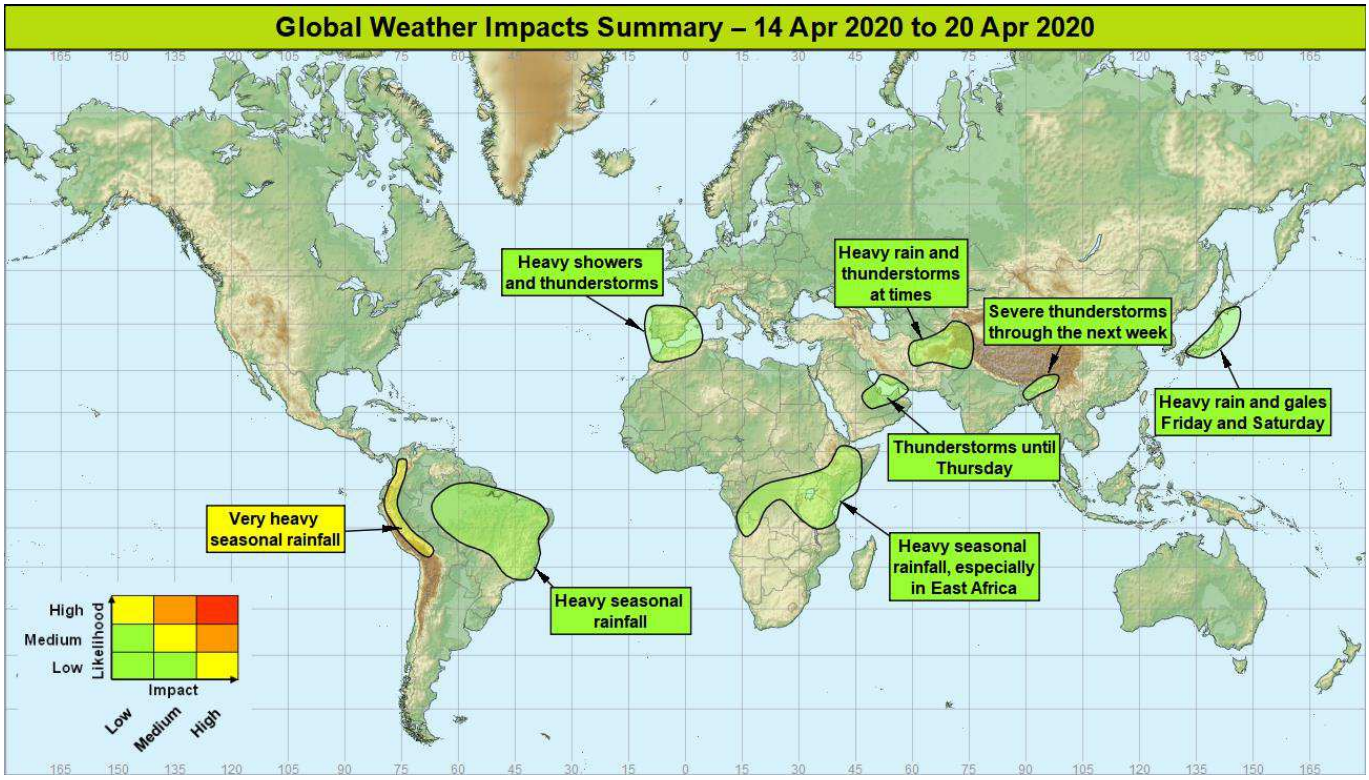
Daily Global Weather Impacts Assessment

Global Weather Impacts – Tuesday 14th to Monday 20th April 2020

Issued on Tuesday 14th April 2020

HEADLINES

- Continued very heavy seasonal rainfall across the northern Andes.
- Heavy seasonal rainfall in central, and especially east, Africa.
- Severe thunderstorms across Bangladesh and northeast India at times.
- Heavy showers and thunderstorms across Iberia and northwest Africa at times.



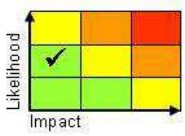
DISCUSSION

Tropical Cyclones

No tropical cyclone activity that could impact land is expected over the next 7 days.

Europe

Iberia, northern Morocco and northwest Algeria



Weather

There will be heavy showers and thunderstorms in this region each day through the coming week. However, there are two periods when this activity could be impactful. On Wednesday the heavy showers and thunderstorms are likely to be more widespread, and perhaps focused on western Spain and Portugal. Up to 40 to 70 m of rain could fall in just 3-6 hours. The second more active period look like from the weekend and more focused on northern Morocco, northwest Algeria and eastern Spain, including the Balearic Isles. During this period there is potential for widespread heavy showers and occasional thunderstorms with up to 75-100 mm of rainfall in 6-12 hours possible. Frequent lightning will also be likely, with strong winds and a lower likelihood of large hail.

Discussion

This forecast may be amended at any time
Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter, Tel: +44(0)1392 884319
VPN: n6225 4319 Email: ggu@metoffice.gov.uk

A cyclonic upper pattern is expected across this region through the next 7 days. All models sweep a marked upper trough north across Iberia on Wednesday, enhancing deep convection through the day. Later in the week the upper troughing will have extended much further south, allowing a very warm plume to extend north from northwest Africa across eastern Iberia. A low latitude upper trough is then expected to drive northeast, engaging the plume, resulting in widespread deep convection. Both events produce fairly skinny CAPE profiles (around 500 J/Kg) and so the highest likely impact in both events will be flash flooding. The first event will be surface rooted with reasonable vertical wind shear, with the second event more likely an elevated based CB event, but with some diurnal input and also reasonable wind shear. So organised deep convection looks likely in both events, with intense rainfall most likely, but with frequent lightning especially likely in the second event.

Expected Impacts

Enhanced threat of flash flooding Potential impact from frequent lightning, especially from the weekend.

North America

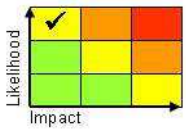
Nil.

Central America

Nil.

South America

Much of Ecuador, Peru and Bolivia, and western Colombia



Weather

Enhanced shower and thunderstorm activity is signalled to continue across much of the northern Andes through at least the next 4 or 5 days. A further 150-300mm of rainfall is likely to fall across the area. This represents locally more than double the average rainfall for parts of this region which have been very wet over recent weeks and months.

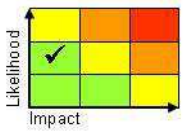
Discussion

A marked MJO will move east across this region during the next week leading to enhanced convection across the tropical regions of South America. This zone across the northern Andes has been very wet in recent weeks and months, with repeated reports of impacts due to both flooding and landslides.

Expected Impacts

Enhanced threat of further landslides and flash flooding, particularly in areas where the terrain is steep.

Brazil



Weather

Above average shower and thunderstorm activity is expected across a wide region of central Brazil over the coming week. Wide areas are expected to see accumulations around 50-100mm with peaks of over 250mm. Although much of this region is filled by the Amazon rainforest, some significant cities within it, especially around the edges

Discussion

A marked MJO will move east across this region in the coming days, leading to enhanced convection across the tropical regions of South America. In this zone the South Atlantic Convergence Zone (SACZ) which marked the retreating monsoon plume will become active for a time and bring heavy precipitation to more densely populated coastal regions, such as that around Salvador.

Expected Impacts

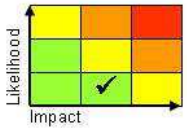
Enhanced risk of landslides and flash flooding.

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter, Tel: +44(0)1392 884319
VPN: n6225 4319 Email: ggu@metoffice.gov.uk

Daily Global Weather Impacts Assessment

Africa

Central parts of Africa



Weather

Fairly widespread showers and thunderstorms are expected in this part of Africa through the coming week, with up to 50-75 mm falling in a few hours, and up to 150 mm accumulating in places through the next 7 days.

The region along the Tanzanian and Kenyan coastline could be particularly wet, with up to 250 mm accumulating here over the coming week, especially from Thursday. It is likely that parts of this region will see more than their average April rainfall accumulate within a 4 or 5 day period.

Discussion

The progress of the MJO towards Africa over the coming week is likely to lead to enhanced convection across the tropical part of the continent, with the ITCZ likely to become very active across parts of East Africa.

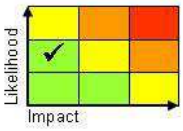
Expected Impacts

Flash flooding and some riverine flooding will become increasingly likely, as will landslides in mountainous terrain.

Northern Morocco and northwest Algeria – *see Europe section*

Middle East

Across and around the Persian Gulf



Weather

Thunderstorms are expected to affect develop across the Persian Gulf in the next few days, peaking on Wednesday. There is a threat that thunderstorms may lead to intense rainfall in places (up to 25 mm in a few hours). There will be a continued likelihood of associated strong winds and dense dust storms. Conditions improving by the end of the week.

Discussion

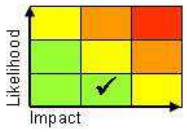
A cyclonic upper pattern will persist through the next few days across the Arabian Peninsula, with the strengthening upper forcing engaging the northern edge of the resident warm plume at 700hPa. Much of the CB activity will be high based, above 700hPa, with the convective column above moistening as do the sub-cloud layers, this will result in rainfall (locally intense) reaching the ground. At times storms could become organised and long lasting.

Expected Impacts

Flash flooding and dense dust storms impacting transport networks, with some property flooding likely. Damaging winds and hail possibly associated with more severe thunderstorms.

Asia

Northern Afghanistan, Tajikistan and northern Pakistan



Weather

Further persistent and locally heavy rain is expected in this region through the next week, with the worst conditions likely today (Tuesday). Widespread 40-60 mm of rainfall is expected, with as much as 100 mm possible over high ground. This is equivalent to more than a month's worth of rainfall in the wettest areas, and the rainfall could combine with seasonal snow melt to exacerbate the potential flooding, but this is low confidence.

Discussion

Disturbances embedded within the STJ will transfer east across this region through the next week. The associated upper forcing engaging the northern side of the warm plume to produce areas of rain and thunderstorms. The most significant coupling of strong upper forcing and warm plume looks likely today (Tuesday).

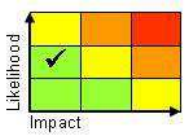
Expected Impacts

Flash flooding looks like the main threat in this region, but locally some dense lifted dust plumes are also possible across the desert regions.

This forecast may be amended at any time
Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter, Tel: +44(0)1392 884319
VPN: n6225 4319 Email: ggu@metoffice.gov.uk

Daily Global Weather Impacts Assessment

Bangladesh and northeast India



Weather

Severe thunderstorms are expected to develop across this region, producing intense rainfall (up to 50-75 mm in just a few hours) along with the threat of large hail and tornadoes. This is now the peak season for severe storm impacts in this region.

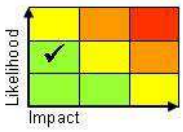
Discussion

Advancing upper troughs will engage a warm plume advecting up from the Bay of Bengal from Wednesday. This will result in forecast profiles that show very large CAPE (around 4000 J/kg) and marked vertical wind shear, especially in the lower atmosphere.

Expected Impacts

Flash flooding is likely along with, strong winds and large hail damage. Very localised tornadic damage is also possible along with impacts from frequent lightning.

Japan



Weather

A further period of very windy and wet weather will affect much of the area on Friday night and into Saturday, producing a further 75-125 mm of rain (the average for the whole of April) rainfall in Japan in around 24 hours around coast, and over the mountains perhaps a high as 175mm. Gale force winds are also expected, mainly along the southern coasts, leading to some rough seas.

Discussion

An upper trough will interact with WBPT plume leading the cyclogenesis. The resulting a gradually deepening area of low pressure will track NE across the mainland, before clearing on Saturday night.

Expected Impacts

Threat of flash flooding with a lower likelihood of landslides. Lower likelihood of some wind damage or disruption. Rough seas.

Australasia

Nil.

Additional Information:

Nil.

Issued at: 140700 UTC **Meteorologists:** Tony Wardle / Paul Hutcheon **Global Guidance Unit**

This forecast may be amended at any time

Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter, Tel: +44(0)1392 884319
VPN: n6225 4319 Email: ggu@metoffice.gov.uk