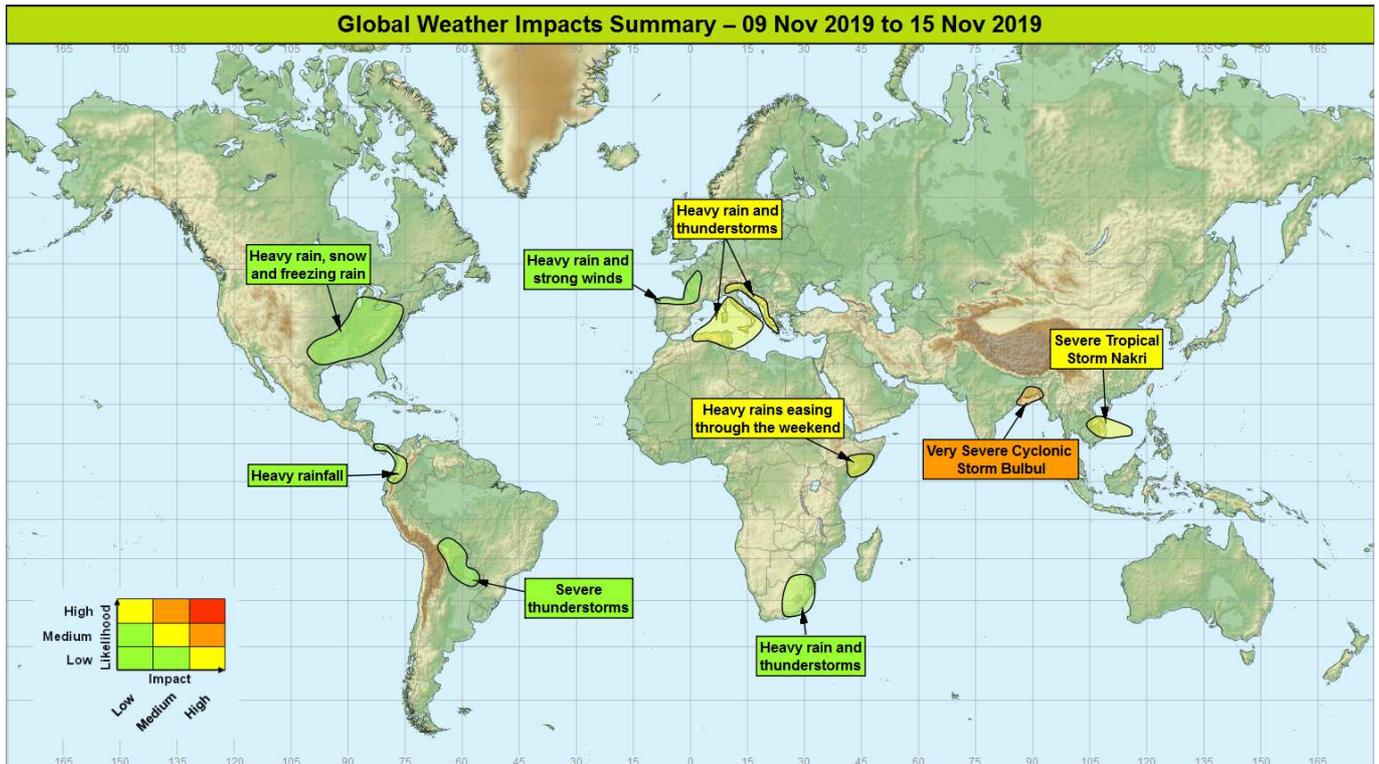


Global Weather Impacts – Saturday 9th to Friday 15th November 2019

Issued on Saturday 9th November 2019

HEADLINES

- Very Severe Cyclonic Storm Bulbul affecting Bangladesh and northeast India this weekend.
- Severe Tropical Storm Nakri forecast to affect Vietnam this weekend.
- Heavy rains across parts of Somalia and eastern Ethiopia easing through the weekend.
- Remaining very unsettled across the central Mediterranean.



DISCUSSION

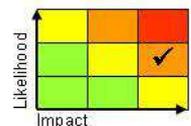
Tropical Cyclones

Very Severe Cyclonic Storm Bulbul (Bay of Bengal, northeast India and Bangladesh)

Weather
 During Friday Bulbul continued to track northwards across the northeastern Bay of Bengal as a Very Severe Cyclonic storm with sustained winds around 85 mph. The cyclone is expected to weaken somewhat as it approaches landfall close to the Bangladesh/India border (just east of Kolkata) on Saturday. Sustained winds at this time likely to be around 60 mph. Rainfall accumulations of up to 350 mm are expected, which would be over 10 times the average November average with this usually being the start of the dry season. A large storm surge is also likely on and to the east of landfall, possibly as high as 2 metres in a region where the land is barely above sea level for miles inland in the Ganges Delta. Bulbul will quickly weaken on landfall, tracking northeastwards as a weakening system through Sunday.

Discussion

Bulbul remained over a high SST and a low wind shear environment on Friday, but as the cyclone moves further north the environment here will lead to some weakening. Deterministic and ensemble output remain in good general agreement for intensity and track. The biggest uncertainty will be the level of storm surge and whether it coincides with high tides.



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VPN: n6225 4319 Email: ggu@metoffice.gov.uk

Expected Impacts

The highest impact could be storm surge flooding if this coincides with high tides. Flash and river flooding also likely, along with landslides in hillier regions. Winds will also be high enough to damage buildings. The worst impacts look likely to be to the north and west of Cox's Bazaar, but some impacts possible here too.

Severe Tropical Storm Nakri (South China Sea and Vietnam)

Weather

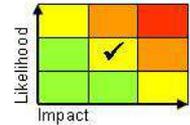
Nakri is currently across the South China Sea and was located 300 miles east of Vietnam at 09/0000 UTC with maximum sustained winds around 70 mph. Nakri is expected to gradually weaken in the next few days as it tracks west towards Vietnam, likely making landfall on Sunday or early Monday. Gust at this time likely to be around 50 mph. Nakri may affect similar areas which are still recovering from the impacts of the transit of Matmo across the area a week or so ago. Whilst heaviest rainfall from the system will likely be over open waters, some 150-300 mm of rain is likely for parts of central Vietnam this weekend and early next week (which is up to 50% of the average November rainfall).

Discussion

There is good model agreement for Nakri to make landfall across central Vietnam, close to where Matmo made landfall a week ago.

Expected Impacts

Most likely impacts will be from flash flooding, but with a threat of river flooding and landslides too. Wind damage and storm surge coastal flooding are assessed as a lower likelihood.



Europe

Italy, Corsica, Malta, Greece, western parts of the Balkans, Tunisia and northern Algeria

Weather

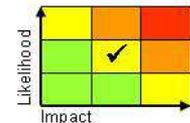
Following recent heavy rainfall in this region, further active weather systems are expected to move across this region over the next week bringing persistent, heavy rain and thunderstorms to this area. The heaviest rain is likely to be focussed on southwest facing high ground of Italy, the Balkan region, and western Greece, with Montenegro already reporting flooding impacts. Many places will see 25-50 mm in a few hours on wetter days, with some prone spots seeing as much as 140 mm per day. It's possible that some locations could see as much as 400 mm of rainfall in total by early next week, 2 to 3 times the average November rainfall. This accompanied by strong winds, especially around coasts.

Discussion

A cyclonic upper pattern will dominate into next week leading to a continuation of unsettled conditions. As upstream mobility increases this will see a number of plumes drawn across the region, which will see precipitation increasingly modulated by orography and act as a focus for heavy rain and thunderstorms.

Expected Impacts

Increased likelihood of flash flooding causing damage to property and infrastructure. Lightning strikes, large hail and tornadoes/waterspouts could also produce localised significant damage, particularly in the south of this region later in this period.



Western France and northern Spain

Weather

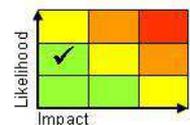
Conditions will also remain unsettled across this region over the weekend, with further spells of strong winds and heavy rain/thunderstorms. Around 25-50mm of rain could fall in thunderstorms in a few hours with up to 100mm building up in places. Winds will be strong and gusty at times, especially in or near thunderstorms.

Discussion

South-shifted Atlantic mobility will steer a number of active Atlantic systems into western Europe.

Expected Impacts

Increased risk of flooding with heavy rain. Risk of landslides in steep terrain. Strong winds may bring impacts to travel and power supplies.



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VPN: n6225 4319 Email: ggu@metoffice.gov.uk

North America

Central & eastern USA

Weather

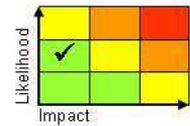
First significant winter storm of the season is continuing to affect large parts of central and southern USA, stretching from the Great Lakes to the Gulf Coast, especially by early next week. A mixture of heavy rain, snow and freezing rain is expected along with strong winds. Snow and/or freezing rain could fall as far south as southern parts of Texas, eg Houston. Around 15-30 cm of snow could fall quite widely in regions where snowfall is not particularly common.

Discussion

An upper trough swinging SE from the Canadian Rockies will drive an active cold front SE across the USA. Air of Canadian arctic origin will follow post front, reaching as far south as the Gulf Coast by early next week, bringing exceptionally cold conditions here for early November. The rearward sloping nature of the frontal system will allow a well-marked cold undercut to develop, with snow falling widely across central/northern regions and freezing rain in the south.

Expected Impacts

Widespread travel disruption is possible as well as interruptions to power supplies due to ice accretion. Damage to crops is likely in the rapid freeze that is expected to take place.



Central America and Caribbean

Panama and Costa Rica – See *South America* section.

South America

Panama, Costa Rica, western Colombia and northern Ecuador

Weather

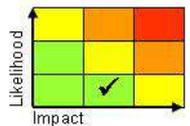
Enhanced shower and thunderstorm activity is likely across this region. 50 to 100 mm of rainfall is possible each day, with some places seeing up to 400 mm in total by the early part of next week, although these totals are likely to be very localised.

Discussion

Surface rooted convection release is likely with in excess of 3000 J/kg CAPE available, leading to some severe and slow moving storms each day.

Expected Impacts

Increased risk of flash and river flooding with landslides possible in mountainous areas. In recent days 1000 people were affected when the San Jose river burst its banks in north western Colombia and there have been other reports of flooding in this region.



Parts of Paraguay, southeast Bolivia and northwestern Argentina

Weather

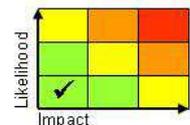
Spells of heavy rain and severe thunderstorms are forecast to across the region at times in the coming week. Rainfall totals of 50-100 mm are possible in places per day, with Sunday and from Wednesday looking most likely to see the highest totals. Frequent lightning, large hail and strong wind gusts will be additional hazards.

Discussion

The SACZ will remain active during this period, enhanced by a southward extension of tropical air over central South America engaged by various minor upper troughs in the subtropical jet. This will allow a mixture of surface based and elevated convection, severe thunderstorms (bringing large hail and a strong, gusty wind threat) are most probable towards the northern edge of this zone of convection.

Expected Impacts

Flash flooding, transport disruption and a small risk of property damage from hail and wind gusts.



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Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter. Tel: +44(0)1392 884319

VPN: n6225 4319 Email: ggu@metoffice.gov.uk

Africa

Somalia and eastern Ethiopia

Weather

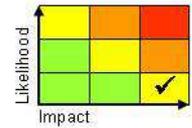
The remnants of cyclonic storm Kyarr will continue to produce heavy showers and thunderstorms across usually dry parts of Somalia and eastern Ethiopia through the next day or so, perhaps bringing 25-75mm of rainfall. Drier conditions are expected to become established by the end of the weekend.

Discussion

Areas of deep convection continue in the moisture plume which is the remnant of Kyarr. This will promote frequent shower and thunderstorm activity over Somalia and parts of eastern Ethiopia in the next day or so, but this is a decaying feature. Given recent media reports documenting severe flooding along the Juba and Shebelle river catchments and in Northeast Kenya (which has already resulted in international financial aid), this additional rainfall will not be welcome.

Expected Impacts

Across Somalia and the east of Ethiopia heavy rainfall could further exacerbate significant flooding that is currently ongoing along major rivers (including the Shebelle) in this region.



Algeria and Tunisia – See *Europe section*

South Africa

Weather

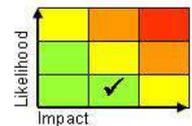
Heavy showers and thunderstorms are expected to become more frequent and organised over the weekends and into next week across the region. This will be accompanied by frequent lightning, hail and strong, gusty winds. 50-100mm of rain could fall in a day, with some significant totals in a few hours.

Discussion

A succession of shortwave upper troughs, then a more significant feature will move across the country from Sunday. These will engage the resident high WBPT plume promoting the development of heavy showers and thunderstorms. Serious multi-year droughts have affected parts of the country, and to a degree this rain will be welcome.

Expected Impacts

Flash flooding, transport disruption and a small risk of property damage from hail and wind gusts.



Middle East

Nil.

Asia

South China Sea and Vietnam – See *Tropical Cyclone section*

Northeastern India and Bangladesh – See *Tropical Cyclone section*

Australasia

Nil.

Additional Information

The annual smog season across parts of Northern India continues to make news, with authorities describing pollution levels in New Delhi as unbearable <https://www.bbc.co.uk/news/world-asia-india-50333985>.

Australian authorities say an 'unprecedented' number of emergency-level bushfires are threatening the state of New South Wales <https://www.bbc.co.uk/news/av/world-australia-50350401/australia-bushfires-unprecedented-fires-turn-skies-orange>.

Issued at: 080615UTC **Meteorologists:** Tony Wardle

Global Guidance Unit

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Global Guidance Unit, Operations Centre, Met Office, FitzRoy Road, Exeter. Tel: +44(0)1392 884319

VPN: n6225 4319 Email: ggu@metoffice.gov.uk

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