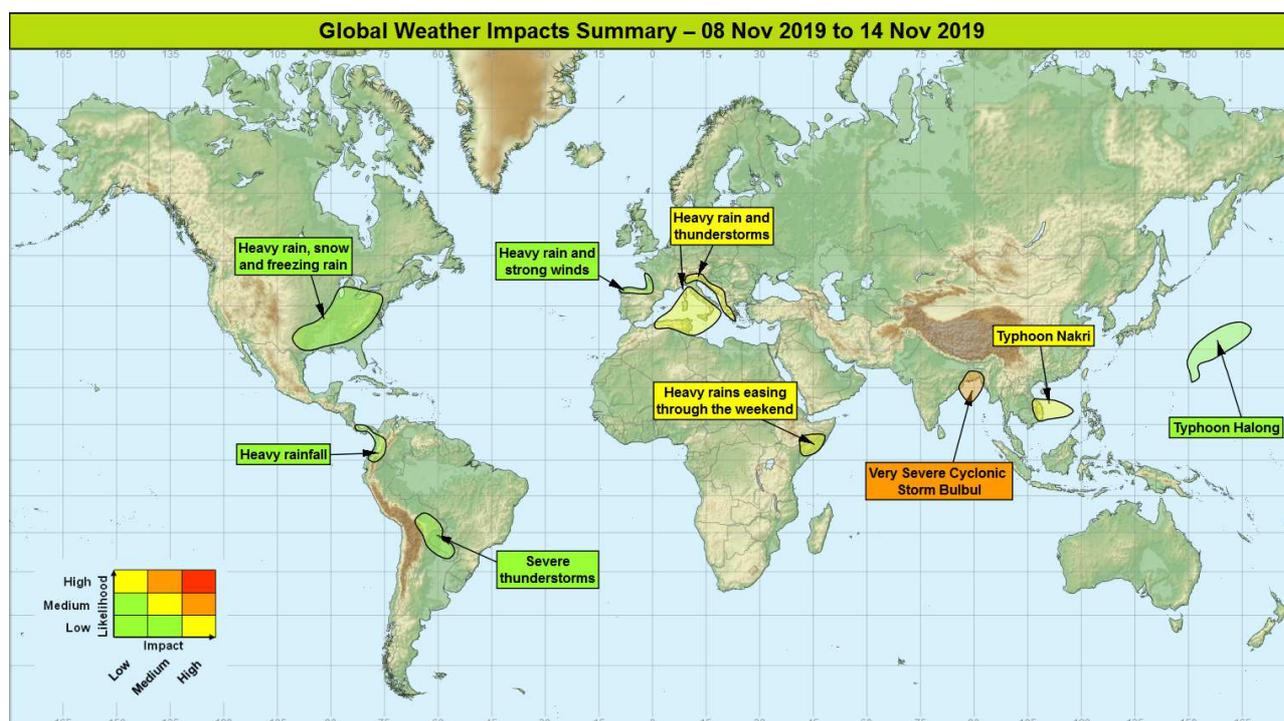


Global Weather Impacts – Friday 8th to Thursday 14th November 2019

Issued on Friday 8th November 2019

HEADLINES

- Very Severe Cyclonic Storm Bulbul affecting Bangladesh and northeast India this weekend.
- Typhoon 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

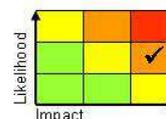
Tropical Cyclones

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

During Thursday Bulbul tracked northwards and strengthened into a Very Severe Cyclonic storm with sustained winds around 80 mph. Further strengthening is expected during Friday before making landfall on Saturday when sustained winds could be as high as 100 mph. There is now higher confidence for a landfall close to the Bangladesh / India border (just east of Kolkata) with hurricane force winds likely to affect the coastal region for a time. Rainfall accumulations of up to 350 mm could be 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 will remain over a high SST and a low wind shear environment on Friday, allowing it to intensify as it moves north towards land. Deterministic and ensemble output is in better 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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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.

Typhoon Nakri (South China Sea and Vietnam)

Weather

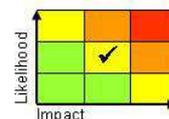
Nakri strengthened into a Typhoon during Thursday night with 10 minute sustained winds of 74 mph and was located 400 miles east of Vietnam at 08/0600 UTC. Nakri could strengthen further through the next few days as it tracks west towards Vietnam, likely making landfall on Sunday. Nakri may affect similar 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). Nakri will weaken on landfall, but could still produce gusts of up to 60 mph.

Discussion

There is good model agreement for Nakri to remain a typhoon until close to landfall, and for landfall to be in 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.



Tropical Storm Halong (Northwest Pacific)

Weather

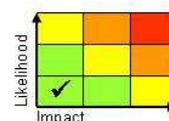
Halong continues to weaken, and is now just a tropical storm with sustained 10 minute winds of 63 mph. Halong is well to the northeast of Guam (Northern Mariana Isles) and will continue to track away to the northeast, likely decaying through the next few days in open water.

Discussion

Good model agreement for this system to continue to weaken further over cooler waters and an increased vertical wind shear environment.

Expected Impacts

Limited to marine transport with this system not expected to impact any land.



Europe

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

Weather

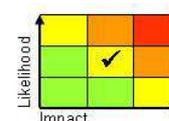
Following recent heavy rainfall in this region, further active weather systems are expected to move across this region over the next week bringing persistent, heavy rain and thunderstorms to this area. The heaviest rain is likely to be focussed on southwest facing high ground of Italy, the Balkan region, 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 200 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.



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Western France and northern Spain

Weather

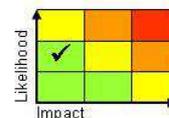
Conditions will also remain unsettled across this region with further spells of strong winds and heavy rain. During the next week around 50-100mm of rain will fall quite widely, especially across southwest France and northern Iberia, with potentially over 200mm in some spots. Winds will be strong at times, although we do not at present expect to see a repeat of winds of the strength storm Amelie brought to western France last Sunday.

Discussion

South-shifted Atlantic mobility will steer a number of active Atlantic systems into western Europe. Although no one system is expected to be as potent as storm Amelie, the cumulative effect of several systems could lead to increased impacts by the end of this weekend.

Expected Impacts

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



North America

Central & eastern USA

Weather

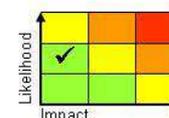
First significant winter storm of the season is expected to affect large parts of central and southern USA early next week, stretching from the Great Lakes to the Gulf Coast. A mixture of heavy rain, snow and freezing rain is expected along with strong winds. Snow and/or freezing rain could fall as far 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, possibly forming a shallow wave depression enhancing precipitation further. Air of Canadian arctic origin will follow post front, reaching as far south as the Gulf Coast, 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

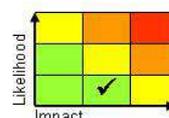
Enhanced shower and thunderstorm activity is likely across this region. 50 to 100 mm of rainfall is possible each day, with some places seeing up to 500 mm in total by the early part of next week, although these totals are likely to be very localised.

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.



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Parts of Paraguay, southeast Bolivia and northwestern Argentina

Weather

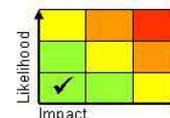
Spells of heavy rain and severe thunderstorms are forecast to continue northwards across this region at times over the next 5 to 7 days. Rainfall totals of 50-100 mm are possible in places each day, although this will only be in a few isolated locations. Frequent lightning, large hail and strong wind 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.



Africa

Somalia and eastern Ethiopia

Weather

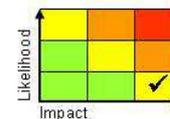
The remnants of cyclonic storm Kyarr will continue to produce heavy showers and thunderstorms across usually dry parts of Somalia and eastern Ethiopia through the next few days, perhaps bringing 25-75mm of rainfall. Drier conditions are expected to become established later this weekend.

Discussion

Areas of deep convection continue in the moisture plume which is the remnant of Kyarr. These areas of deep convection will promote frequent shower and thunderstorm activity over Somalia and parts of eastern Ethiopia over much of the coming days. Given recent media reports documenting severe flooding along the Jubba and Shabelle 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 Shabelle) in this region.



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 is making news, with authorities describing pollution levels in New Delhi as unbearable <https://www.bbc.co.uk/news/world-asia-india-50280390> It now looks less likely that the remnants of Tropical cyclone Maha will bring relief in the form of rainfall today.

Issued at: 080820UTC **Meteorologists:** Chris Tubbs / Paul Hutcheon **Global Guidance Unit**

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