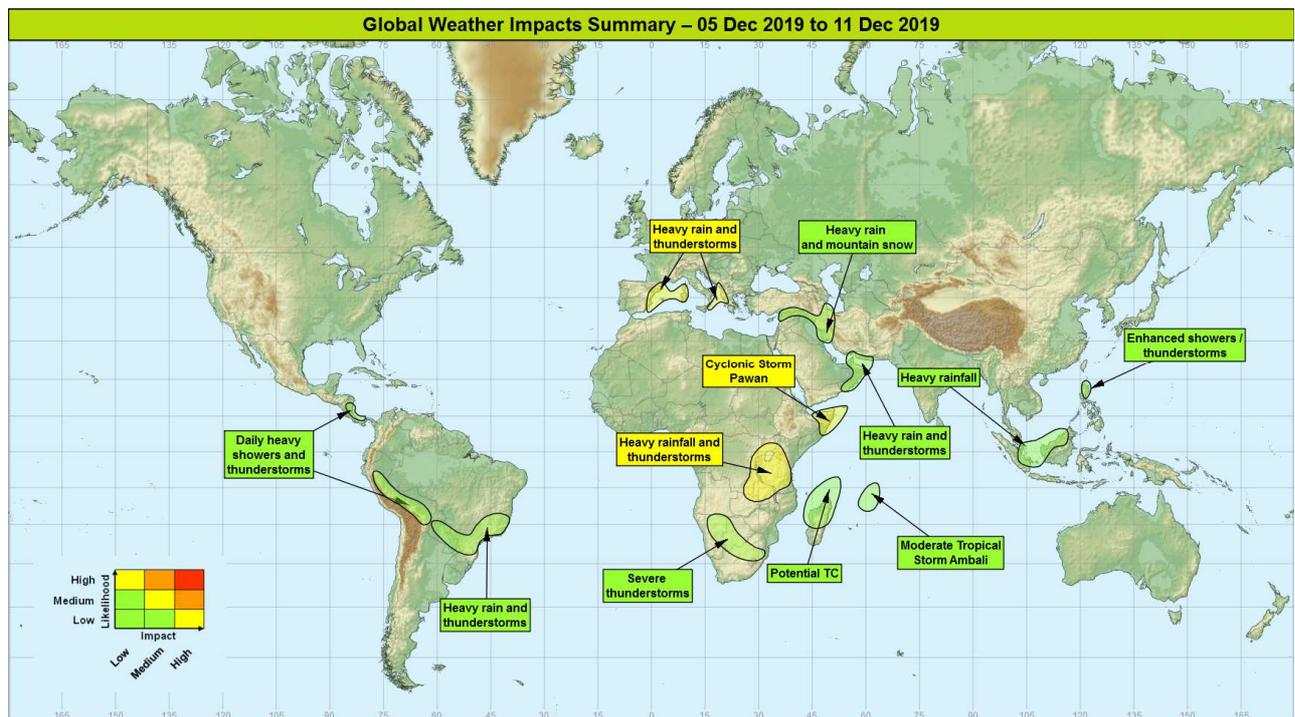


Global Weather Impacts – Thursday 5th to Wednesday 11th December 2019

Issued on Thursday 5th December 2019

HEADLINES

- Heavy rain from Cyclonic Storm Pawan impacting Somalia most likely Friday or Saturday.
- Further heavy rain and showers for parts of eastern Africa – much wetter than normal here.
- Further heavy rain and thunderstorms for northwest and north-central Mediterranean.
- West Indian Ocean experiencing high levels of tropical activity with four areas of interest.



DISCUSSION

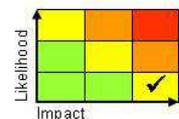
Tropical Cyclones

**Cyclonic Storm Pawan
Weather**

The area of showers/thunderstorms currently around 290 miles south-southeast of Socotra, Yemen, was slow-moving yesterday, but overnight has organised further and is now named Cyclonic Storm Pawan (pronounced 'Pavan'). It is expected to move west-southwestwards today and make landfall probably early Saturday, although confidence in track, speed and landfall location is still very low. This system will bring torrential rain (100-200, locally 250-300mm) in a 24-48 hour period through Friday and Saturday, and strong gusts of wind.

Discussion

Pawan's gradual motion towards a more neutral shear environment, and SSTs of 27-28°C, should it to maintain intensity today. Models and official guidance then indicate that a slow weakening will take place as it moves WSW prior to landfall. There is a rather large spread in ensemble and model output so confidence in the details (timing, location of landfall) remains very low, having said that there is higher confidence in a period of heavy rainfall for parts of E/NE Somalia through Friday and Saturday. There is the potential for this to have high impacts; a similar event in November 2013 required an international response.



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Expected Impacts

Potential for flooding rains leading to threat to life, destruction of homes, displacement of populations, disruption to transport and utilities.

Moderate Tropical Storm Ambali

Weather

An area of showers and thunderstorms has organised overnight and has now strengthened into Moderate Tropical Storm Ambali, currently located around 600 miles southeast of the Seychelles. It is expected to strengthen further today, reaching Severe Tropical Storm strength (winds gusting over 60 mph) in the next 24 hours, before gradually weakening again as it tracks south-southwestwards. It is expected to dissipate over the weekend without affecting land.

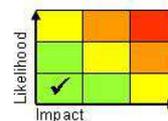
Discussion

Ambali is currently in favourable low shear environment for further strengthening through today and tomorrow. It is a small system so forecasts of intensity carry greater uncertainty than usual, however there is good agreement for the cyclone to weaken again from Friday as shear increases and dry air intrudes at mid-levels.

Expected Impacts

Nil.

The following regions are being monitored for possible impactful tropical cyclone development.



Western Indian Ocean

Weather

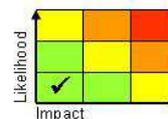
An area of increasingly organised convection west-southwest of the Seychelles is expected to very gradually meander southwestwards on an erratic track, and may organise into a tropical storm over the next day or so. Regardless of development, it still looks likely to bring heavy rain (of order 100-200mm) to northern parts of Madagascar, with a lower threat of strong winds. Mainland Africa now looks very unlikely to be affected by this system, and there is also a much smaller chance that it could reach La Reunion and Mauritius.

Discussion

Developments have been slow, but marginally favourable wind shear conditions and SSTs of 28-29°C along the system's most likely track should see a slow strengthening, with a tropical storm potentially being named today or tomorrow. Ensemble output shows a wide spread in tracks, but there is currently little evidence to suggest it will affect anywhere other than Madagascar later this week or early next week.

Expected Impacts

Potential for torrential rainfall to bring flash floods to northern parts of Madagascar, along with damaging winds and an enhanced landslide risk.

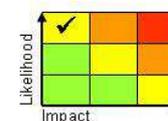


Europe

NE Spain, S France, Corsica/Sardinia, S Italy, and countries abutting SE Adriatic

Weather

A continuation of Wednesday's heavy showers and thunderstorms will affect this region today; activity steadily reducing from eastern Spain (a further 40-60mm here) and becoming more focused towards Corsica, Sardinia and the southern tip of Italy (60-120mm in 24 hours here). Conditions improving here Friday, with activity transferring to the Balkans (60-80mm) before this event ends. The rain (away from eastern Spain which will be mainly persistent, heavy rain onto hills/mountains) will mainly take the form of heavy showers/thunderstorms, meaning coverage will be highly variable, but will bring additional hazards of large hail and frequent lightning. Winds across eastern Spain much lighter than Wednesday.



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Discussion

A sharp upper trough will be moving northwards across the Mediterranean today, forcing an occluding frontal zone to bring primarily flow-aligned, orographically enhanced rainfall to NE Spain today, with a hint of embedded instability close to the coast. Flow is weaker than yesterday here, with rainfall totals likely to be half to two-thirds what they were on Wednesday. Deepest instability will be further east, as the same forcing engages the cold front and destabilises the warm sector to produce long lived thunderstorms/MCS over the Central Med. This zone transfers NE into the Adriatic by Friday, but is generally overrun by the upper forcing, such that further showers/thunderstorms to SST's are likely but will be less organised/frequent than today.

Expected Impacts

Flash flooding is likely with a possibility of landslides.

North America

Nil.

Central America and Caribbean

Costa Rica & Panama – see South America section

South America

Panama, Costa Rica, Peru and Bolivia

Weather

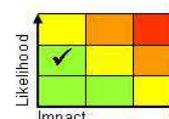
Frequent heavy showers and thunderstorms will affect these regions over the next 7 days, with the showers each day bringing 50-80 mm in just a few hours, with some locations receiving over 400mm through the next 7 days. As is the nature of showers, spatial coverage on any one day will be highly variable.

Discussion

With the South American Monsoon extending well south now, daily rounds of showers and thunderstorms are expected to form to the west of the Andes of Colombia and Ecuador, and to the east of the Andes further south. The region highlighted has seen above average rainfall during the past week, and is also forecast to receive the highest rainfall totals.

Expected Impacts

Flash and river flooding likely, with increased likelihood of landslides.



Paraguay, southeast Brazil.

Weather

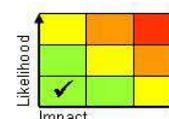
A band of rain and thunderstorms continues pushing northwards, bringing 50-100mm in a few hours today (Thursday), and tomorrow becoming confined to the far east of Brazil before fading. Frequent lightning is likely, and a risk of localised large hail.

Discussion

The next round of the SACZ continues moving northward, perturbed by a fairly flat and mobile shortwave trough developing a band of heavy showers and thunderstorms. CAPE and PWAT are high, with localised flash flooding likely where they occur.

Expected Impacts

Localised flash flooding, and low risk of lightning damage.



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Africa

Eastern Africa

Weather

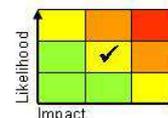
Showers and thunderstorms associated with the seasonal rains are expected to continue to be heavier than normal over the next week, with a further 100-200mm of rain falling in places from frequent heavy, thundery, afternoon downpours. This area has also seen 200-400% of the usual rainfall over the past week.

Discussion

Enhanced seasonal rainfall in association with the strong positive Indian Ocean Dipole event which, although declining, is still influencing the large scale shower distribution. Large tracts of eastern Africa have seen well above average rainfall over the past 3-6 months. The combination of all these factors dramatically increases the likelihood of further flash and river flooding. Most recently south-east Uganda suffered flooding and landslides early this month, leaving at least 2 people dead.

Expected Impacts

An increased risk of flash flooding and landslides in the region, with further river flooding likely. Frequent lightning is also likely, along with large hail and strong wind gusts.



Southern Africa

Weather

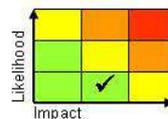
Widespread heavy showers and thunderstorms will affect the region through much of this period. Around 30-50mm of rain will fall quite widely each day, with some locations receiving up to 100mm daily. By the end of the week, accumulations of up to 250mm are possible, which would be around twice the monthly average in many parts of the region.

Discussion

An upper trough moving into south-west Africa will force heavy rainfall in the west of this region, before relaxing and transferring east. This will weaken the frontal zone responsible, but also draw tropical moisture southwards which will then be engaged by a further, sharper trough arriving later this weekend into early next week. Very high PWAT and moist profiles suggest some very intense downpours are possible, with the possibility of some long-lasting severe storms, especially in the south of the region in Botswana, northern parts of South Africa and parts of Namibia.

Expected Impacts

Rainfall will be largely welcome as this region of Africa has suffered droughts in the recent past. However, such intense downpours will generate flash flooding and landslides, potentially damaging infrastructure and crops.



Madagascar and Somalia – see *Tropical Cyclones* section

Middle East

Parts of Syria, Iraq and western Iran

Weather

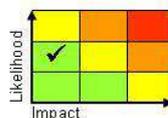
Heavy rain, and snow over the mountains, will affect this region over the next few days. The heaviest and most widespread precipitation will fall across northern Iraq and northwest Iran. Here 75-100mm of rain is probable, and perhaps 125-150mm in 36-48hrs in a few prone spots.

Discussion

An active cold front, driven SE by a disrupting upper trough will bring heavy rain and mountain snow to W and N Syria today and Friday, before heading SE towards the Persian Gulf. The resultant cut-off upper vortex and cold pool will maintain the risk of heavy showers into the weekend across northern Iraq and Iran, particularly in the vicinity of the northern Persian Gulf where a separate plume of warmth/moisture from Saudi Arabia will provide the ingredients for a spell of intense but localised thunderstorms.

Expected Impacts

Flash and river flooding, landslides, and disruption to transport and travel are possible



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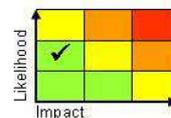
Southern Iran, UAE, Oman
Weather

Discussion

The same upper trough/vortex bringing heavy rain/showers to areas further north looks likely to engage the plume of tropical moisture coming northwestwards towards the Gulf of Oman over the weekend. This is associated with the tropical depression currently west of India, though it is not currently expected to develop further. Nevertheless, a day or two of heavy showers and thunderstorms is likely, although there is a large spread in model solutions currently particularly with respect to the location of the heaviest rain.

Expected Impacts

An increased risk of flash flooding and landslides.



Asia
Philippines
Weather

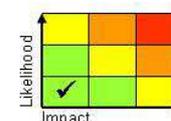
Enhanced showers and thunderstorms are likely to affect northeastern Luzon through the next couple of days. These could produce a further 150-250 mm locally.

Discussion

Enhanced northeasterly flow in the wake of Severe Tropical Storm Kammuri will feed showers and thunderstorms into northeast Luzon through the next 24-36 hours.

Expected Impacts

Increased risk of flash flooding. Risk of landslides.



East Malaysia, Borneo, Brunei and Sumatra
Weather

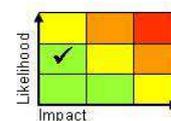
Even though it is the rainy season in this region, heavy rainfall is expected through the next week, with some places seeing up to 300 mm (equivalent of 50-75% of the average monthly rainfall at this time of year).

Discussion

A combination of a weak MJO moving across the Maritime Continent and a surge in the Northeast Monsoon are likely to enhance convection through this week.

Expected Impacts

Increased threat of flash flooding and landslides.



Australasia
Nil.

Additional Information

Eastern Australia – Wildfire: Numerous bushfires continue in parts of eastern New South Wales, Queensland and Australian Capital Territory with severe conditions expected again in parts of these areas today and tomorrow.

South China Sea – Ex-Kammuri: Kammuri, after having crossed the Philippines earlier this week, is now decaying over the open waters of South China Sea, with no further impacts expected.

Issued at: 050830 UTC **Meteorologists:** D J Harris / Laura Ellam

Global Guidance Unit

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