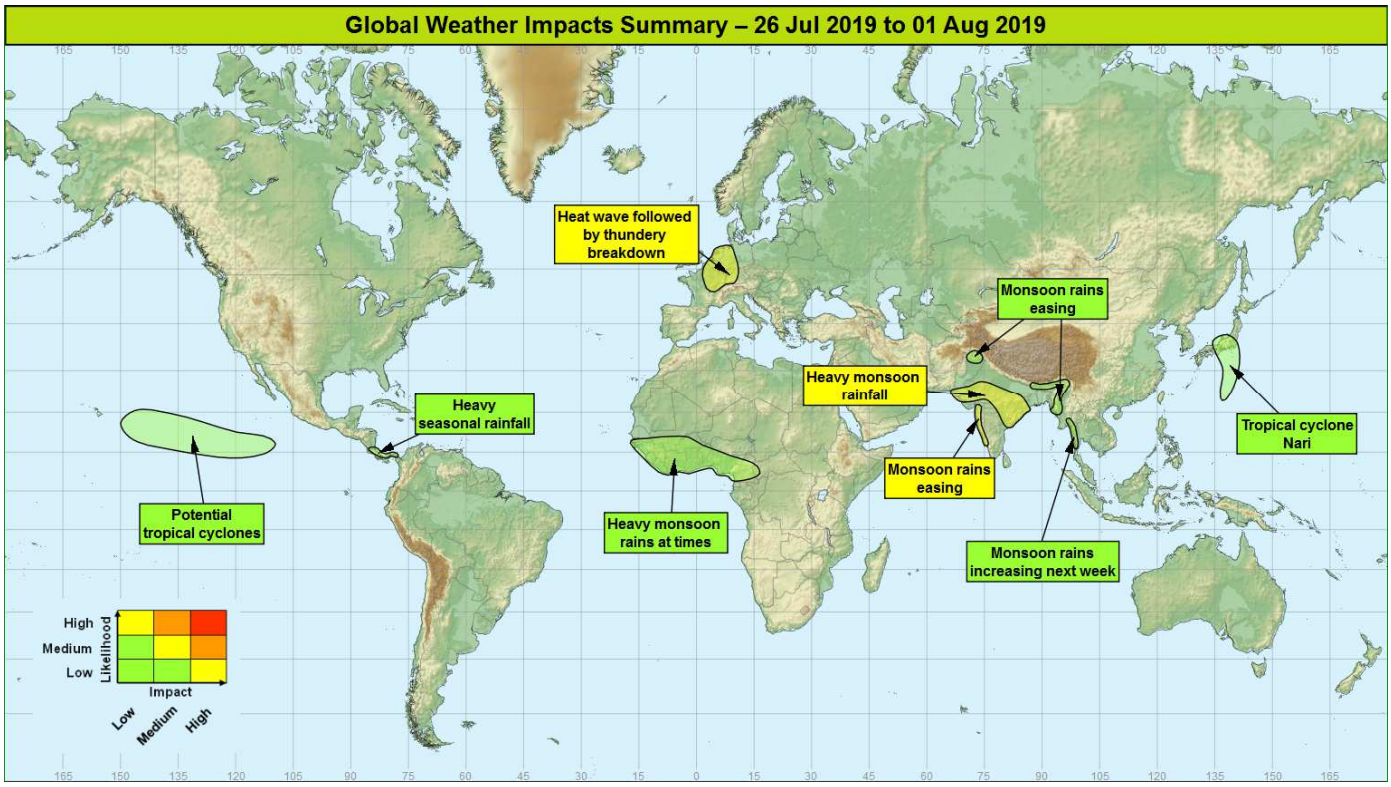
Daily Global Weather Impacts Assessment

Global Weather Impacts – Friday 26th July to Thursday 1st August 2019

Issued on Friday 26th July 2019

HEADLINES

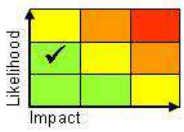
- Historic heatwave across parts of Europe gradually coming to an end in a thundery breakdown.
- Further intense monsoon rainfall for parts of the Indian sub-continent this week.



DISCUSSION

Tropical Cyclones

Northwest Pacific (perhaps affecting central Japan)



Weather

Tropical cyclone Nari developed overnight, and is expected to track north, then north-east into the weekend. Nari is expected to have sustained winds of 40 mph, and higher gusts. Heavy rain is likely to be the cause of the majority of impacts, with 100-200, very locally 300mm of rain in 24-36 hours. The average July rainfall in this part of Japan is around 150-200 mm.

Discussion

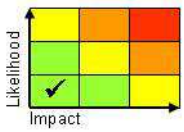
Nari developed overnight, as an area of thunderstorms consolidated into a tropical storm. Nari is likely to maintain its intensity for the next 24-36 hours, before interaction with land leads to a rapid weakening of the storm, though heavy rain will likely continue well after the storm makes landfall.

Expected Impacts

Risk of localised flash flooding and low risk of landslides.

The following areas are being monitored for development:

Eastern North Pacific



Weather

A number of areas of showers and thunderstorms, associated with tropical waves, have the potential to become organised into tropical cyclones early next week. Any systems that do develop would not be expected to impact land over the next 7 days.

This forecast may be amended at any time

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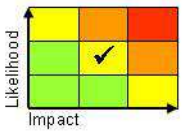
Discussion
A number of African Easterly Waves interacting with the ITCZ are producing showers and thunderstorms, which as environmental conditions become more conducive over the coming days could become organised into tropical cyclones. There is a large spread in the model output in terms of any developments, but common to all output is that any system that does develop will stay over open water until at least the end of the forecast period.
Expected Impacts
Nil.

Europe

Western, central and north-western Europe



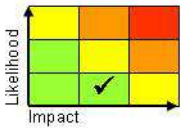
Weather
Whilst large parts of western and central Europe are currently experiencing temperatures 5-10ºC above normal and heatwave conditions, the area highlighted is expected to have the highest temperatures today before a thundery breakdown and general decline in temperatures occurs from the west. Maxima will be widely above 35ºC, close to 40ºC in a few places. Thunderstorms that develop by late afternoon could be severe, with 50-75mm in a few hours, large hail, and very strong, locally damaging, gusts of wind.
Discussion
Local and national records have continued to tumble in the ongoing hot spell, with France, Germany and the Netherlands all reporting temperature in excess of 40ºC yesterday. The extremely warm low level air mass, aided by large scale subsidence, is expected to gradually cool over the next few days as subsidence declines, and slow cold advection takes place from the west. Despite this, further temperatures in the high 30s, locally low 40s of Celsius are expected today, which could trigger areas of severe thunderstorms.
Expected Impacts
Heat health impacts including heat and sunstroke, particularly given the longer duration of the extremely hot weather and high overnight temperatures. Main risk for vulnerable demographics, e.g. young, elderly, sick. Disruption to transport possible on a local scale, especially rail. Enhanced risk of wildfires. Severe storms will produce a threat of flash flooding, damaging hail, power outages, transport disruption (especially aviation) and wind damage.

North America

Nil.

Central America and Caribbean

Costa Rica and Panama



Weather
Heavier than average rainfall is expected through the next week in this region, in the form of intense showers and thunderstorms. Up to 300 mm of rain could fall in places (which is around the average July rainfall) through the next week.
Discussion
A succession of active African Easterly Waves will bring periods of more frequent thunderstorms than usual through the next week. There is also the potential for a Central American Gyre to form across the south of Central America, again providing an additional trigger for more widespread, intense convection. This comes off the back of a wetter than normal week for this region.
Expected Impacts
Flash flooding and an increased likelihood of landslides.

South America

Nil.

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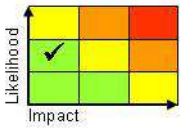
Africa

West Africa



Weather

Further areas of organised thunderstorms will progress westward across this zone through the coming week. These storms may bring in excess of 50 mm of rainfall in a short period of time, with 150-250 mm possible if a location experiences several storms. In addition to heavy rainfall, strong damaging winds may be associated with this area, especially towards the Sahel.

Discussion

Further African Easterly Waves are forecast to transfer across the area stretching from the Sahel to down to the Gulf of Guinea coastline exiting into the Atlantic. These will force areas of organised and persistent convection, bringing torrential thunderstorms across the region – not particularly unusual for the time of year nevertheless still potentially impactful. As they exit into the Atlantic, the associated circulations could spin up in to weak tropical depressions, but the environment is not conducive for development beyond this.

Expected Impacts

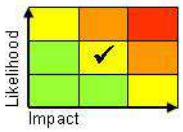
Flash flooding from short duration heavy rainfall is possible, especially if the rainfall affects any urban centres. The rainfall will also enhance the risk of landslides where terrain is steep. In the north of the region strong winds may also accompany storms, these able to damage poorly built structures and lift areas of dense sand and dust.

Middle East

Nil.

Asia

Parts of central and northern India along with far south-eastern Pakistan



Weather

Periods of widespread, intense showers and thunderstorms will transfer from the east to west across this region through the next week, producing up to 350 mm of rain in a 24 hour period, with a threat of up to 600 mm through the next week in a few places. This means that some places could see several times their average July rainfall in a few days. There are some very large cities in this region that could see intense rainfall events during the next week.

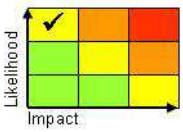
Discussion

The main driver behind the severe monsoon conditions through the next week will be a succession of monsoon low pressure systems that will track from east to west across this region. This will result in most rainfall falling in the space of a couple of days, with longer drier periods in between. Forecast profiles show deep skinny CAPE, with high precipitable water (PWAT) allowing these fairly frequent cells to produce large precipitation accumulations.

Expected Impacts

High likelihood of flash flooding, and an increasing threat of river flooding. An increasing likelihood of landslides in hillier regions. Densely populated regions of India and Pakistan (including some large cities) could be impacted this coming week.

Far west of India



Weather

Persistent SW'ly monsoon flow into this area has seen a number of days of very heavy rain (daily totals in excess of 200mm), with further heavy rain expected over the next 2-3 days. Rains are expected to ease through the coming weekend

Discussion

The easing of the monsoon south-westerly flow into south-western India will result in weakening rains through the weekend. This comes in association with a monsoon depression passing by to the N. A further 200-300mm is possible in the region before the rains finally ease.

Expected Impacts

Continued flash and river flood threat along with a high likelihood of landslides during the next few days. However, the likelihood of these impacts decreasing from the weekend.

This forecast may be amended at any time

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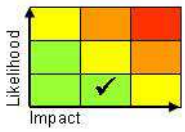
North Pakistan, parts of Myanmar and foothills of the Himalayas



Weather

Further heavy showers and thunderstorms associated with the South Asian Monsoon in these areas are expected to ease over the coming weekend, but not before a further 50 to locally 100mm of rain falls today (Friday).

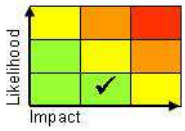
Discussion

Further heavy showers and thunderstorms on the edge of the monsoon plume across Pakistan and in the strong monsoonal flow abutting the high ground to the south of the Himalayas are expected to weaken through the coming weekend, but not before a further widely 50 to locally 100mm of rain falls, on top of an already very wet spell of weather. This weakening associated with the development and westward transfer of a monsoon depression which weakens the strong, hot and moist upslope flow.

Expected Impacts

Further flash flooding potential, and exacerbation of ongoing flash and river flooding. Risk of landslides in wettest areas.

South Myanmar, far north of Thailand



Weather

Strengthening of the monsoonal flow late this coming weekend is expected to lead to an enhancement of rainfall in this area. 50-100, locally 150mm of rain could fall per day, with totals in excess of 300mm building up through the first part of the coming week.

Discussion

As one monsoon depression moves across N India over the weekend, another is signalled to form in the Bay of Bengal late in the weekend, which will strengthen the SW'ly gradient and increase rainfall across this part of the world.

Expected Impacts

Increased risk of flash flooding and landslides.

Central Japan – see *Tropical Cyclones* section.

Australasia

Nil.

Additional information

Nil.

Issued at: 260720 UTC **Meteorologist:** D J Harris / Brent Walker **Global Guidance Unit**

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