

20<sup>th</sup> forum international  
de la Météo  
et du Climat

20 years of Commitment to the Climate  
20 ans d'engagement pour le climat

#FIMC2023  
MEDIA WORKSHOP  
OCTOBER 6-7<sup>TH</sup>, 2023  
6-7 OCTOBRE 2023

# INTERNATIONAL COMMUNICATION ON CLIMATE CHANGE IN THE MEDIA

COMMUNICATION INTERNATIONALE  
SUR LE CHANGEMENT CLIMATIQUE DANS LES MEDIAS

CO-ORGANIZERS  
CO-ORGANISATEURS

météo  
et climat



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# Attribution: Vulnerability and Exposure

# Study Triggers

Storm (floods, wind, storm surge)	<ul style="list-style-type: none"> <li>• ≥100 deaths OR</li> <li>• ≥1,000,000 people affected OR</li> <li>• ≥50% of total population affected</li> <li>• Declaration of State of Emergency/Disaster (at state or national level)</li> </ul>
Drought	<ul style="list-style-type: none"> <li>• ≥2 million people affected OR</li> <li>• ≥50% of total population affected OR</li> <li>• Declaration of State of Emergency/Disaster OR</li> <li>• Orange or red GDACS Alert</li> </ul>
Heat wave/ Cold wave	<p>For this type of event impact reporting is notoriously sparse. We will trigger if criteria 1 or 2 are met, along with at least one of criteria 3-5:</p> <ol style="list-style-type: none"> <li>1. Forecast or observation of record-breaking or unseasonably high temperatures over a large geographic area, for a prolonged period (3+ days)</li> <li>2. Newspaper reports of ≥10 heat/cold-related deaths or major disruptions to critical sectors (notably transportation, energy, and manufacturing)</li> <li>3. Occurrence during the first 3-6 weeks of the hot/cold season (when the most temperature-related deaths tend to occur)</li> <li>4. Event occurrence in a densely populated area (≥200 people/km<sup>2</sup>)</li> <li>5. Event occurrence in a highly vulnerable area (≥4.8 <a href="#">INFORM</a>) and/or high lack of coping capacity (≥6.0 <a href="#">INFORM</a>)</li> </ol>
Fires	<p>We will trigger if criteria 1 is met, along with at least one of criteria 2-4:</p> <ol style="list-style-type: none"> <li>1. Concurrent heatwave and/or drought</li> <li>2. ≥400,000 acres / 160,000 hectares / 1,600 km<sup>2</sup> burnt area</li> <li>3. ≥10,000 people affected</li> <li>4. ≥10 deaths</li> </ol>

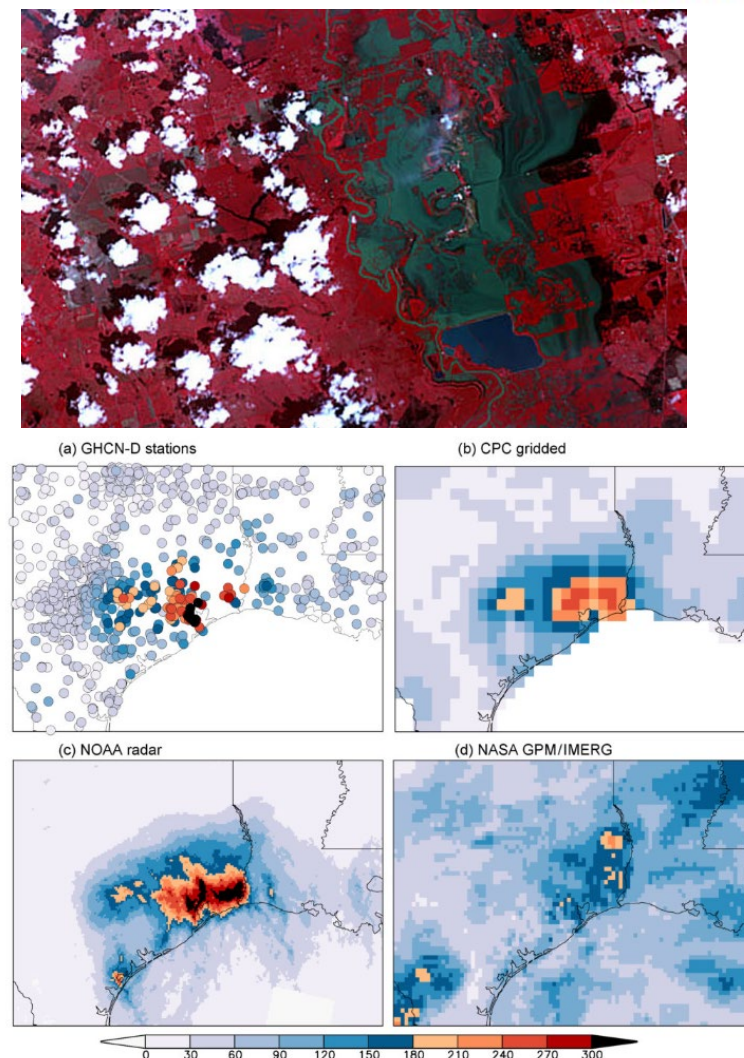
# 2017 Hurricane Harvey

Did climate change play a role in Hurricane Harvey which struck Southeastern USA?

Yes.

WWA's analysis of the precipitation associated with the hurricane found that climate change had made the event approximately **three times more likely**, and **15% more intense**, with changes in return time to one in 9000 years in today's climate.

Additional key risk drivers include **rapid population growth**, **urban growth policies poorly accounting for flood risk**, and **ageing water management infrastructure**.



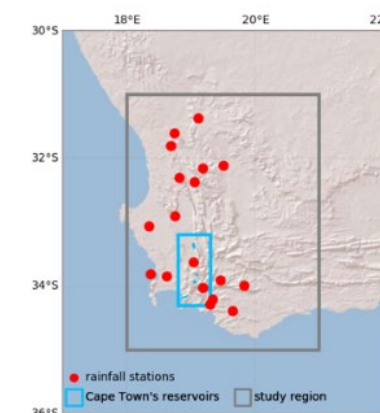
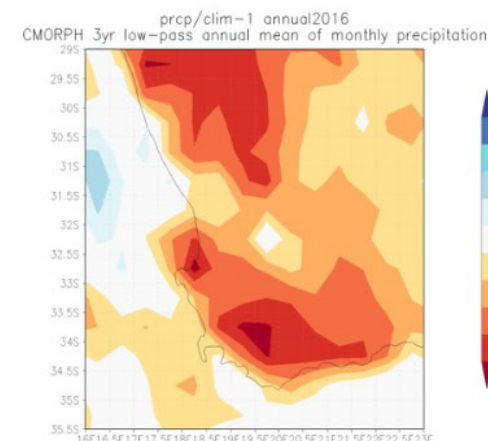
# 2015-2018 Cape Town drought

Did climate change play a role in the 2015-2018 Cape Town drought?

Yes.

WWA's analysis of the below average precipitation associated with the drought found that climate change had made it **three times more likely**. It is now expected to occur once in over 100 years.

Additional key risk drivers include the **water supply system not being designed to mitigate droughts of this magnitude** (up to 1-in-50-year events) and **rapid population growth**.



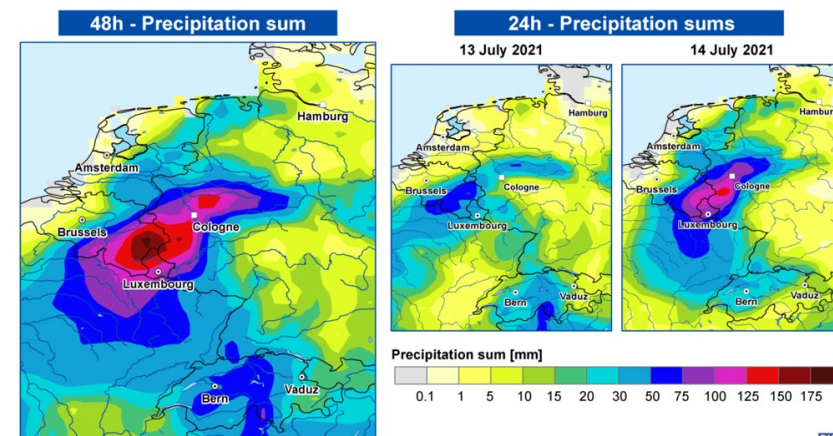
# 2021 Western Europe floods

Did climate change play a role in the rainfall associated with the floods which hit Germany?

Yes.

WWA's analysis of the precipitation associated with the floods found that climate change had made the rainfall **3-19% more intense** and **1,2-9 times more likely**. It is now expected to occur once in 400 years.

Additional key risk drivers include an **ageing population**, and **flood risk management plans and policies not being developed with 'low probability floods' of this magnitude** (up to 1-in-200-year events).



Precipitation data: Extended version of E-OBS. Graphic credits: © Deutscher Wetterdienst 2021 (Last update: 19.08.2021).  
Geodata: © GeoBasis-DE/BKG 2020 (Last update: 01.01.2020).

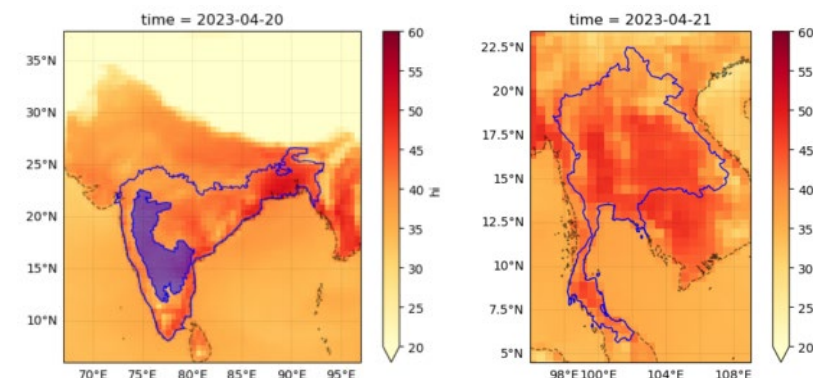
# 2023 South and Southeast Asia heatwave

Did climate change play a role in the heatwave in South and Southeast Asia?

Yes.

WWA's analysis of observed maximum daily temperatures found that climate change had made **the heat about 30 times more likely** and **2C hotter** in South Asia, whereas the heat in Southeast Asia would have been **virtually impossible without climate change**, and **at least 2.3C cooler**.

Additional considerations include **urban planning, heat action plans early warning systems, vulnerability indicators**.



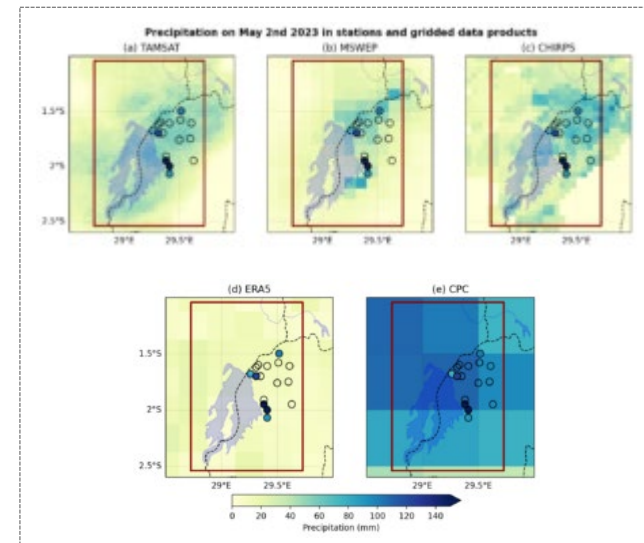
# 2023 Rwanda and DRC floods

Did climate change play a role in the Rwanda and DRC floods?

We don't know – due to limited data.

The **scarcity of data prevented the WWA from studying the accumulated precipitation**. However, it allowed WWA to highlight the need for better observations, greater access to meteorological data, and more research in the area to improve early warning systems and long-term adaptation.

Additional considerations include **conflict, deforestation, land use changes and early warning systems**





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**Thank you for your participation!**  
Merci de votre participation !

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