



World Meteorological Organization

Weather • Climate • Water

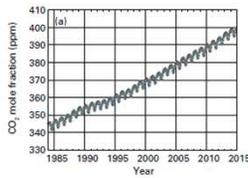
# Climate change and the Mediterranean The WMO perspective

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Director, Cabinet and External Relations

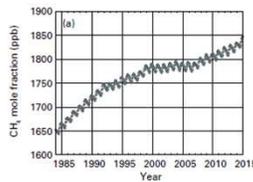
10<sup>th</sup> PAM Plenary Session  
Tirana, Albania, 18-19 February 2016

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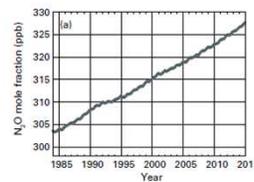
## Greenhouse gases concentrations: new record



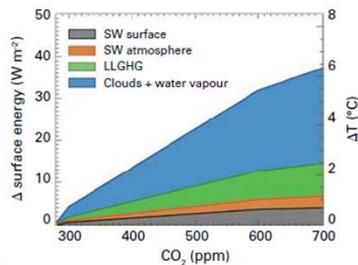
Carbon dioxide (CO<sub>2</sub>)



Methane (CH<sub>4</sub>)



Nitrous oxide (N<sub>2</sub>O)

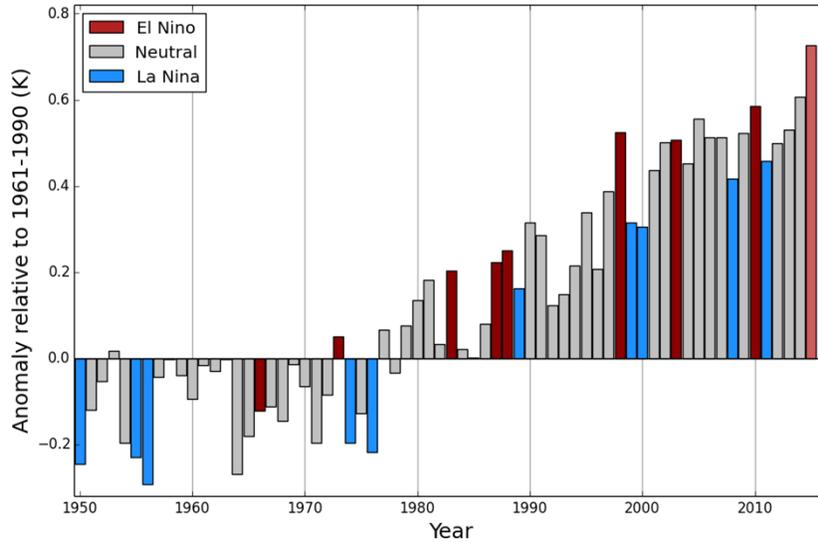


**Water vapour and CO<sub>2</sub> are the major greenhouse gases, with CO<sub>2</sub> the main driver of climate change. Water vapour changes largely happen as a response to the change in CO<sub>2</sub>.**

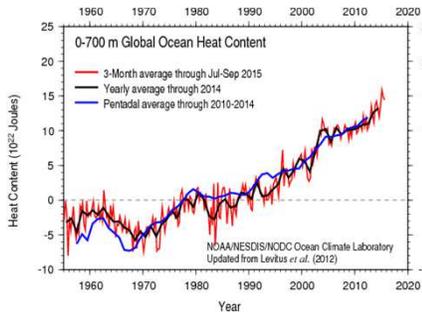


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## Global surface temperature anomalies 1950-2015

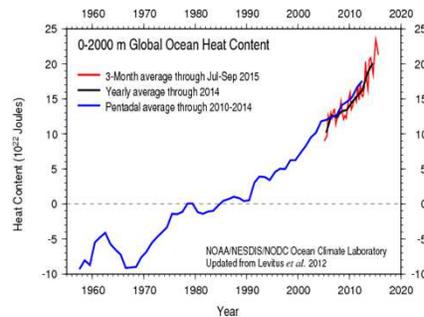


## Global ocean heat content 1955-2015

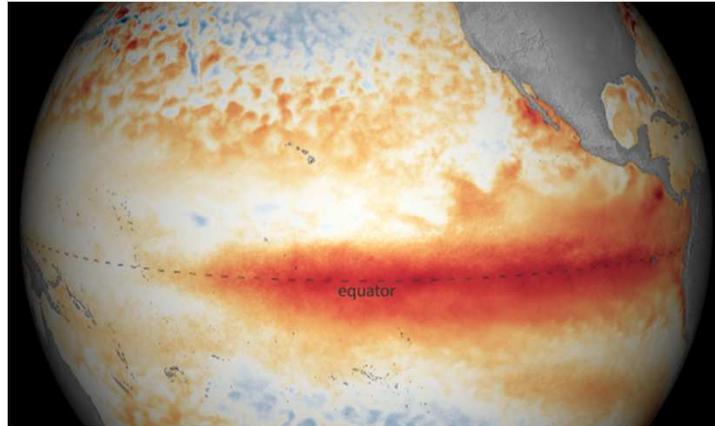


**0-700 m global ocean heat content**

**0-2000 m global ocean heat content**



# El Niño 2015/2016



January 2016 compared to 1981-2010

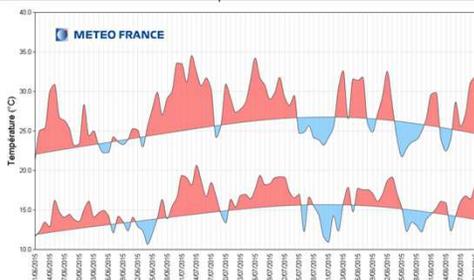
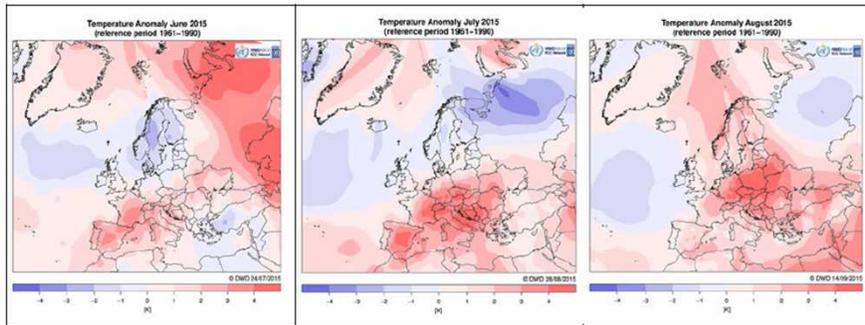
Difference from average temperature (°F)  
-9 0 9

Climate.gov/NNVL  
Data: Geo-Polar SST

Source: NOAA 2016



# Heatwave of summer 2015 (June-August)

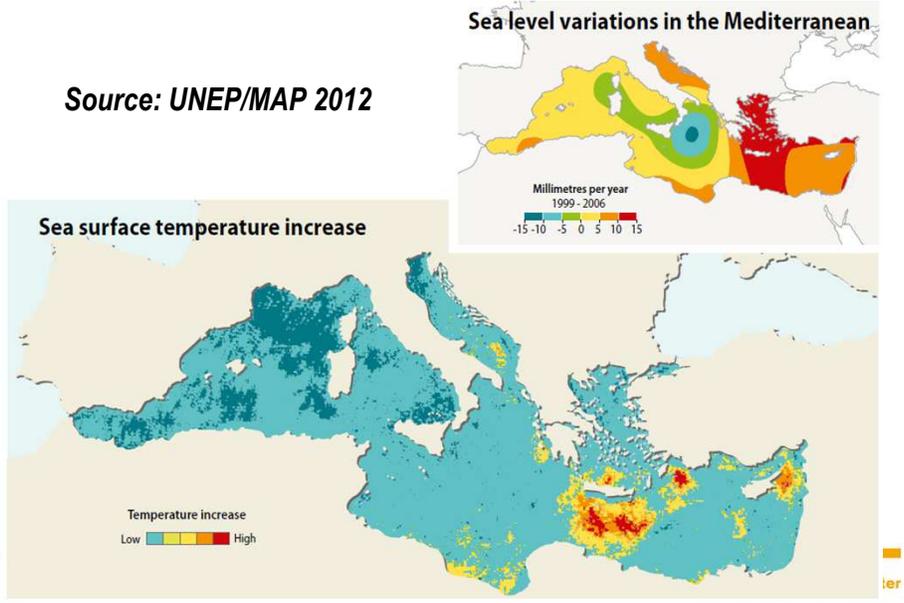


Temperature anomalies in France: June-August 2015

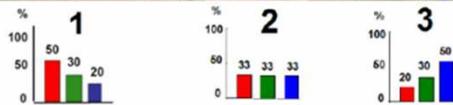
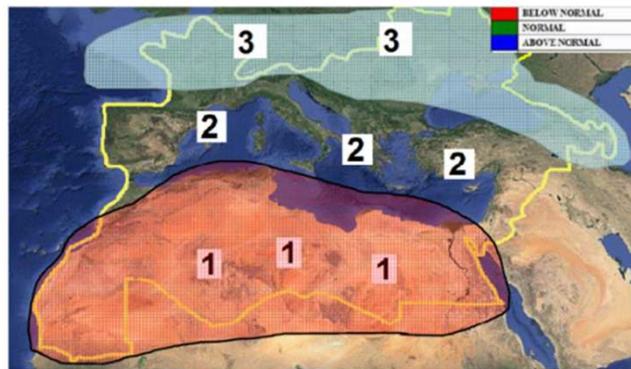


# Climate change and hydrographic conditions

Source: UNEP/MAP 2012



# MedCOF - Mediterranean Climate Outlook Forum



## 2015/2016 WINTER PRECIPITATION OUTLOOK



## Main ideas supported by WMO



- Maintaining and strengthening climate observations including of GHG concentrations and data quality control
- Climate services for mitigation (energy)
- Climate services for adaptation
- Reduced loss and damage through DRR
- Development and application of climate knowledge
- Strengthening the WMO network's role in the above using climate finance



## Key features of the Paris agreement / 1

- Addresses **mitigation, adaptation and minimizing loss and damage**
- Ambition to limit warming **to well below 2 °C above pre-industrial levels** while **pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels**
- IPCC to provide a **special report in 2018 on the impacts of global warming of 1.5 °C above pre-industrial levels** and related global greenhouse gas emission pathways



## Key features of the Paris agreement / 2

- Builds on **Nationally Determined Contributions (NDCs)** from Parties to the UNFCCC, a crucial step towards common objective
- Countries invited to **update emission targets by 2020** and every five years
- **Transparency and reporting** on national progress
- Strengthening **scientific knowledge** on climate, including **research, systematic observation** of the climate system and **early warning systems**, in a manner that informs **climate services** and supports decision-making



## MedCOP22



## How PAM can engage

- Supporting a common regional position on reducing greenhouse gas emissions for COP22
- Supporting mainstreaming of climate issues in development and disaster risk reduction agenda
- Promoting climate-neutral infrastructure and renewable energy (solar in particular)
- Supporting strengthened observing systems and networks and open climate data policies
- Promoting increased investment in climate services capacity



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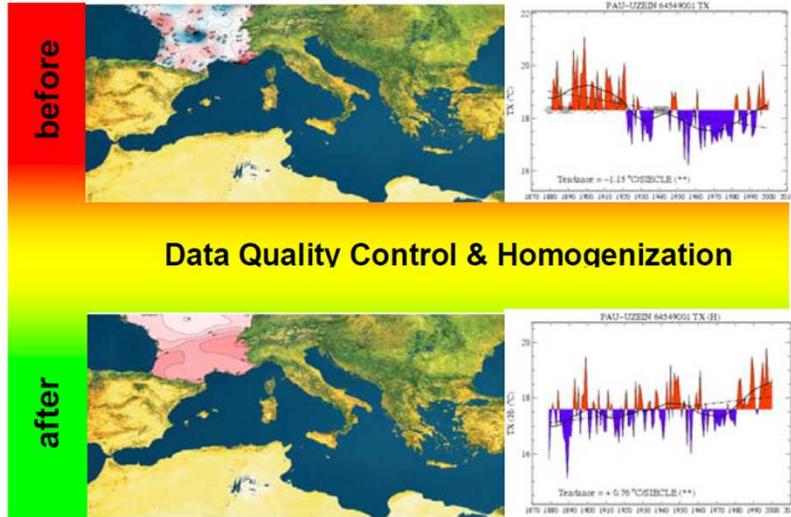
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Thank you for your attention

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## MEDARE - MEditerranean climate DAta REscue



## Paris Climate Change Conference (COP21) (30 November – 12 December 2015)

- Ahead of the meeting, 184 countries, responsible for 95% of global greenhouse gas emissions, had delivered their national climate action plans
- 196 parties to the UNFCCC reached an ambitious, dynamic and universal agreement that is designed to last
- UN Secretary-General: “For the first time, every country in the world has pledged to curb emissions, strengthen resilience and join in common cause to take climate action”



## Climate Risk and Early Warning Systems (CREWS)



- Aims to significantly increase the capacity for risk information and seamless, Multi-Hazard Early Warning Systems
- WMO, UNISDR and World Bank's Global Facility for Disaster Reduction and Recovery to act as technical implementation agencies
- WMO has offered to host joint office
- EUR 80 million pledged by eight countries (30 + 50) with at least two additional probably pledges pending
- The majority of the funding flows through WB/GFDRR trust fund with pass-through to other partners with steering committee oversight

