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OCT



UN Climate Change Fact Sheet

Libya



1901
2021



AVERAGE TEMPERATURE RISE IN LIBYA

The southern Mediterranean region is a “hot spot” for climate change as it is warming 20% faster than global averages.

Average temperatures in Libya have already risen above the global average of

1.1°C

Since 1900

The increase in the temperature will likely

2.2°C

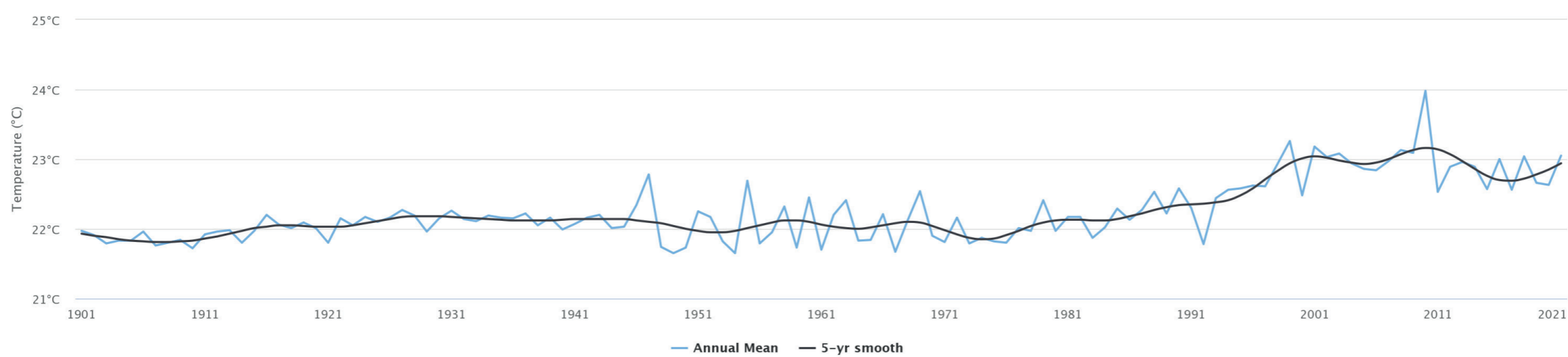
By 2040

Reaching approximately

4°C

by the end of the century

Observed average annual mean temperature of Libya for 1901-2021



Highcharts.com



Libya is facing an increasing trend in the frequency and intensity of disasters and environmental degradation such as floods, sandstorms, land/mudslides and desertification. These participate in internal displacement. The summer of 2022 was warmer than average with temperatures reaching above 50°C. As the climate continues to change, these extreme heat days will become more intense and last longer.



The impacts of heat waves are more severe in cities than surrounding areas.



Higher temperatures affect vital services as it increases demand for electricity and water while decreasing the ability to provide such services.

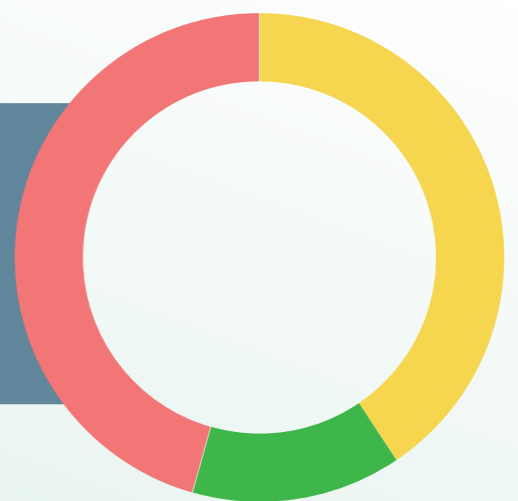


As the Mediterranean warms, the water expands causing sea levels to rise at approximately 2.8 mm a year. Higher seas erode shorelines and cause surge flooding. Low lying areas, particularly the city of Misrata, Benghazi and the Bay of Sirte, are particularly vulnerable.

COASTAL VULNERABILITY INDEX

MAP SHOWING LOW LYING AREAS (BLUE) VULNERABLE TO SEA LEVEL RISE

- 42% LOW
- 10% Moderate
- 48% Very High



Higher temperatures increase the salinity of ground water. Water resources are strained further by the fact that Libya’s precipitation levels are decreasing at a rate of approximately -1.95 mm per year. That rate, however, is rising and Libya may lose another 7% of its rainfall by 2050. There will be increasingly long periods between rains which, when they arrive, will become heavier. Libya is the 4th most water stressed country in the world. Libya currently relies heavily on fossil water transported by the Man-Made River Authority. These water sources are by definition non-renewable and are already running dry in some areas such as Ghadames. Lowering water levels will also increasingly impact the Libyan agriculture sector.



In terms of greenhouse gas emissions, Libya has the highest emissions per capita in Africa at approximately 8.5 tons of carbon per person per year. The vast majority of greenhouse gas emissions comes from electricity production and the oil sector, mainly due to natural gas being released into the atmosphere as waste. Given the high prices of gas, this resource could be captured and invested in long term economic growth for the country.

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UNITED NATIONS SUPPORT TO ENHANCE CLIMATE RESILIENCY AND SUSTAINABLE GROWTH IN LIBYA

Preventing, mitigating, adapting, and responding to the impacts of climate change and environmental degradation as well as tackling water scarcity is one of the priority of the United Nations Sustainable Development Cooperation Framework for 2023-2025.

ENGAGEMENT IN GLOBAL EFFORTS TO ADDRESS CLIMATE CHANGE

Libya is currently the only country yet to develop a climate strategy (National Determined Contribution) as required by the Paris Agreement. UNDP assists Libyan authorities to develop this strategy to effectively engage with multilateral climate institutions. UNDP also works to raise public awareness, engaging youth and building institutional capacity, including municipalities and civil society, to meet the climate challenge

UNDP, UNEP and the National Oil Corporation are working to reduce methane emissions and wastage of natural gas.

DISASTER RISK REDUCTION AND MOBILITY

IOM works towards enhancing Disaster Risk Management capacity in Libya in order to contribute to strengthening the resilience of disaster-affected communities / communities at risk of displacement, while reinforcing national response to mitigate the impact of natural disasters in Libya.

SUSTAINABLE WATER MANAGEMENT

As water is the most immediate vulnerability, UNICEF and UNDP support multiple efforts to promote a sustainable water management system including support to restore the infrastructure of the Man-Made River Authority, improve desalination and wastewater treatment and raise awareness on the impacts of Climate Change on water resources.

FAO, and the Ministry of Water Resources, supported by the Italian Cooperation and the African Development Bank are surveying how water is used in the agricultural sector in order to rationalise water use and increase agriculture resiliency.

FACILITATING ENERGY TRANSITION

UNDP and UNEP support energy transition by analyzing

- current state of the energy sector in Libya,
- application of energy efficiency standards,
- renewable energy potential in the country, and
- formulating renewable energy policies as well as the preparation of optimal economic frameworks to enhance effective participation in this sector, to stimulate private sector participation.



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