THE DRY FACTS

Drought has wreaked havoc throughout history, destroying crops and causing famine and conflict. And it could be getting worse. By Olive Heffernan.



A LONG HISTORY

Serious droughts have occurred in Australia and Africa, among other regions, in recent decades, but more severe 'megadroughts' have occurred on virtually every continent throughout history.



4,200 YEARS AGO GLOBAL MEGADROUGHT Where: North America but spread to Europe.

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Africa and Asia. Lasted for several centuries. Cause: Cooling of the North Atlantic, which reduced rainfall by as much as 30%. Impact: Linked to demise of Akkadian Empire and civilizations in Greece, Egypt and the Indus

1876-78 THE GREAT FAMINE

Where: Began in southern India and spread to the tropics and China.

Cause: Severe El Niño that led to the failure of the Asian monsoon. Food shortages for the poor worsened by Colonial-era imperialism. Impact: More than

5 million deaths in India and 30 million in total.

1901

FEDERATION DROUGHT Where: Australia It covered half the continent by 1901. Cause: Lack of rainfall. Impact: Reduced cattle from 12 million to 7 million and sheep from 91 million to 54 million. Led to a massive failure of the wheat crop and caused the Darling River in New South Wales to dry up.

1930s THE US DUST BOWL

Where: Centred on the Great Plains but covered 60% of the United States. Lasted all decade. Cause: Low rainfall and poor land management (deep ploughing). Impact: Agricultural production fell by 17%. Cost the US government US\$13 billion in aid and 2.5 million people left the affected states.

1940s **CENTRAL EUROPEAN** DROUGHT

Where: Central and Eastern Europe in 1945-47

Cause: Low rainfall. Impact: Devastated crops. In some countries, such as Romania, 90% of the population went hungry. In parts of the Czech Republic, the cereal yield fell by about 30%

1970s-1980s SAHEL DROUGHT

Where: In 1983 it covered 65% of the Sahel, or around 8 million km². Cause: Probably natural variation in ocean temperatures and atmospheric dynamics, coupled with humandriven climate change. Impact: Famine led to 600 000 deaths in 1972-75, and again in 1984-85.



LAND UNDER THREAT

RECENT DROUGHTS

In many regions, climate change is expected to increase the amount of land at risk from drought and heat, and will threaten more arable areas. Each 1°C rise in global warming could cut grain yield by as much as 5%.

