



Planet in Peril!

Global Warming & the Climate Crisis

By Fin Brownlie, Kestrels

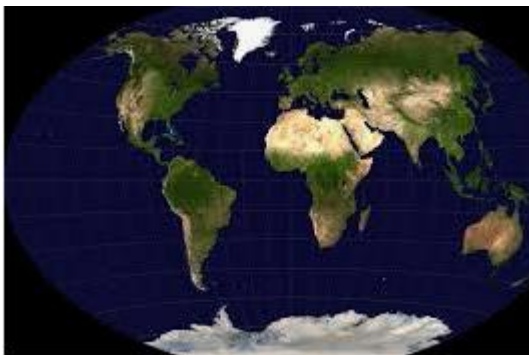
OUR WORLD IS FACING AN UNCERTIAN FUTURE...

IN THIS ISSUE: FACTS, FEARS, ECO TIPS, GOOD NEWS AND HOPE

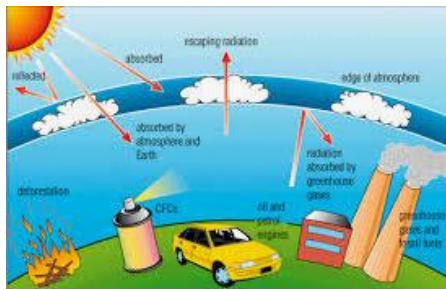
Our Precious World

We're lucky to live on Earth.

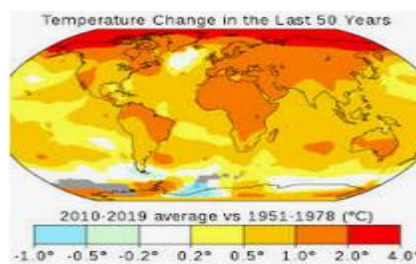
We're in what's known as the 'Goldilocks Zone,' the habitable part of the solar system that has just the right conditions for water to form, and for life to flourish.



heat. These gases let in light but keep heat from escaping, like the glass walls of a greenhouse, hence the name.



Through the burning of fossil fuels and other activities that have emitted large amounts of greenhouse gases, particularly over the past few decades, humans are now enhancing the greenhouse effect and warming Earth significantly, and in ways that promise many effects, scientists warn (see next page).



What is Global Warming?

Global Warming is a gradual increase in the overall temperature of the earth's atmosphere generally attributed to the greenhouse effect caused by increased levels of carbon dioxide, CFCs, and other pollutants.

The "greenhouse effect" is the warming that happens when certain gases in Earth's atmosphere trap

The top ten greenhouse gas polluters are:

- | | |
|-------------------|----------------------|
| 1: China (27.51%) | 6: Brazil (2.25%) |
| 2: USA (14.75%) | 7: Germany (1.98%) |
| 3: India (6.43%) | 8: Indonesia (1.64%) |
| 4: Russia (4.86%) | 9: Canada (1.63%) |
| 5: Japan (2.99%) | 10: Mexico (1.62%) |

The top ten solid waste producers are:

- | |
|-------------------------|
| 10: France, 90,493 TPD |
| 9: UK, 97,342 TPD |
| 8: Mexico, 99,014 TPD |
| 7: Russia, 100,027 TPD |
| 6: India, 109,589 TPD |
| 5: Germany, 127,816 TPD |
| 4: Japan, 144,466 TPD |
| 3: Brazil, 149,096 TPD |
| 2: China, 520,548 TPD |
| 1: USA, 624,700 TPD |
- (TPD – Tonnes per day)

FAST FACTS

65.66%

There are 10 countries that together produce 65.66% of global greenhouse gasses. See text for a full list of these countries.

27.51%

China is the largest greenhouse gas producer, emitting 27.51% of the global total.

How is Global Warming Affecting Life on Earth?

With concentrations of greenhouse gases rising, Earth's remaining ice sheets such as Greenland and Antarctica are starting to melt. That extra water could raise sea levels significantly, and quickly.

By 2050, sea levels are predicted to rise between one and 2.3 feet as glaciers melt. As the temperature rises, the climate can change in ways that are difficult to predict.

In addition to sea levels rising, weather can become more extreme. This means more intense major storms, more rain followed by longer and drier droughts. This affects farming, and changes the areas in which plants and animals can live.

Melting glaciers affect the habitat of polar bears, shown below.



From WWF:

Polar Bear

Ursus maritimus

- **VULNERABILITY** Habitat specialists; rely almost entirely on the sea-ice environment.
- **RESILIENCE** Opportunistic eaters; prefer seals, but will feed on whale carcasses and even hunt walrus and beluga. Will prey on land animals when necessary.
- **IUCN RED LIST STATUS** Vulnerable

Other wildlife affected include: Snow Leopard, Giant Panda, Tiger, Monarch Butterfly, Green Sea Turtle, African Elephant, Mountain Gorilla, Asian Elephant, Cheetah.

Habitats affected include: Estuaries and Coasts, Mangroves, Arctic ice sheets, Coral reefs, Sagebrush Steppe, Southwestern Streams.

See our special pull-out feature in next week's issue, providing facts and figures on one of our world's most threatened wild animals or habitats!

Good News/ Bad News

Emissions:

Good News:

Morocco: They are only one of two countries with a plan in place to reduce its CO₂ emissions to a level consistent with limiting warming to 1.5 degrees Celsius.

Bad News:

Canada: This country is warming on average at a rate twice as fast as the rest of the world, a new scientific report indicates.

Environment:

Good News:

Following the devastating bush fires that swept through Australia in early 2020 (which many believe were a result of global warming), a region called You Yangs Mountain escaped the blaze, and 2020 has been the best year for Koala Bear births here since 2006.

Bad News:

Indonesia to move its capital Jakarta because some parts are sinking as much as 25cm per year.



Eco Tips

- Turning down your heating by 1 degree C saves 340kg of carbon a year.
- Boiling one full kettle is the same as watching TV for an hour.
- Dairy has 3x more impact on the environment than some alternative milk.
- Reducing shower time saves energy and money.

3 Global Warming Facts

- 1: 2019 saw the end of the warmest decade on record.
- 2: 2019 was the second warmest year since records began in 1850.
- 3: The ten hottest years have occurred in the last 15 years.



See above for map of Java, with arrow pointing to Jakarta, the capital city.

Want to find out more? Here are some links:

<https://climate.nasa.gov>

<https://www.worldwildlife.org>

<https://www.bbc.co.uk/iplayer/episodes/p07ht7z0/me-vs-climate-change>

<https://www.worldwildlife.org/stories/the-good-news-about-climate-change>

Editor's note:

All of us, from global leaders to individuals, need to tackle global warming. We need to decrease use of fossil fuels, and increase use of renewable energy. The world could be powered entirely by renewable energy in just 20 to 40 years from now.

We need to stop deforestation and plant more trees which capture CO₂. Lots of progress is being made, and young people like us are learning to care for our world. No-one is too small to make a difference. In the next 100 years, I think that the overall temperature will decrease, but not by very much. This will be a very minor difference in temperature, but it will help prevent the seas from rising.

Fin. B.

Renewable Energy includes:

Sunlight, wind, rain, tides, waves, and geothermal heat.

Below: All the signs on the left are renewable, while all the signs on the right are non-renewable sources.



