

Earth's death by a thousand cuts

Written by Charmaine Turnbull, HOPE researcher Qld



Earth is slowly dying by a thousand cuts. There is global warming, droughts, floods, fires, air pollution, light pollution, water pollution, food security, starvation, famine, and hunger, rent rises, unemployment...the list continues. If the human population does not do something, anything, to minimise the climate change war currently occurring, there will be limited

options for our children's children. What legacy would you like to leave your family?



The Living Planet Report 2020 indicates 68% of mammals, birds, fish, amphibians and reptiles died between 1970 and 2016 (Conca, 2020) and the updated version in 2022 indicated 69% of species had declined since 1970...that's a 1% decline in 12 months (World Wildlife Fund, 2022).

What is global warming? It's the long-term heating of Earth's surface observed since the pre-industrial period due to human activities. The pre-industrial period is from 1850-1900. Global warming is different to climate change, as climate change is the long-term change of the average weather patterns (NASA, 2023).

Droughts can cause untold levels of damage to agriculture, humans, and ecosystems (Zhang, et al., 2022, p. 2). When drought-stricken areas receive too much water over too short a time, this can cause runoff which can then cause flooding (Zhang, et al., 2022, p. 2).

Air pollution, the contamination of indoor or outdoor environment by any chemical agent, is found everywhere including from motor vehicles, industrial facilities, and forest fires (World Health Organization, 2023).



Light pollution, defined as excessive or inappropriate use of outdoor artificial light, can be detrimental to people and animals in any area (National Geographic, 2023).

Water pollution comes from several vectors and contaminants (refer to the below chart). Water pollution has several vectors which include, amongst others, domestic, industrial, and agricultural (Morin-Crini, et al., 2022, p. 2313). Pollutants from organics are also in water, sediment, soil, and the atmosphere (Morin-Crini, et al., 2022, p. 2314).

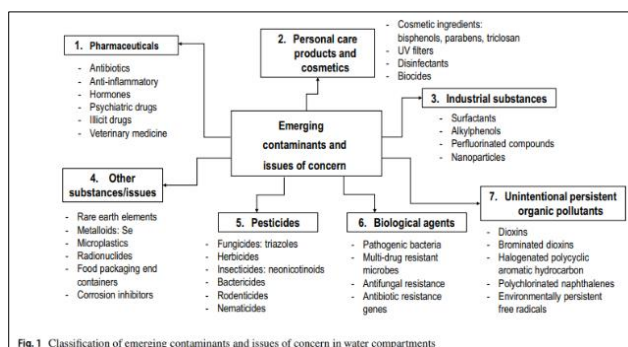


Fig.1 Classification of emerging contaminants and issues of concern in water compartments

Food security has been a concern since World War Two (Akbari, et al., 2022, p. 1) and concerns are raising every year since food raw materials and products are an important variable of humankind (Umarjonovna & Gulomjonovna, 2022, p. 1).

Food loss and waste are becoming a global concern (Ding, et al., 2022, p. 1), and this does not assist the regions where famine is ongoing, such as in the Horn of Africa (Omer, 2023). World Vision indicated almost 45 million people over 37 countries are at risk of

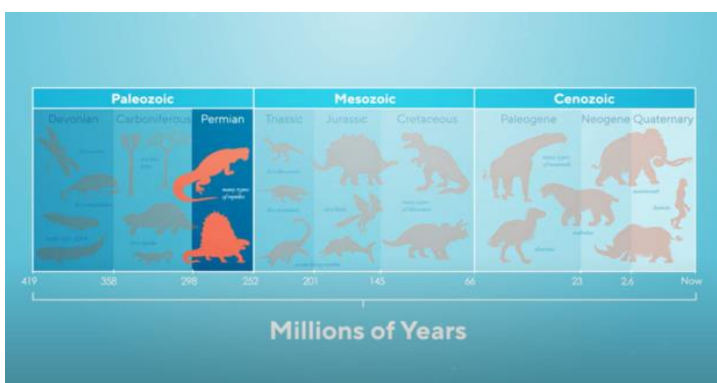
starvation, with 22 million children suffering from wasting – severe weight loss that can lead to death if not treated (Omer, 2023).

The Real Estate Institute of Australia (REIA) is a national organisation which represents real estate agents, has a uniform legislation for the same and coordinates training and education to advance the industry (Real Estate Institute of Australia, 2023). Unfortunately, this is the only national entity regarding real estate. There is no national body which dictates appropriate rental prices, or how often the rent can be increased (Hadgelias, 2022).

Unemployment is currently hitting people aged between 15-24 at a rate of three times that of 'adults' (Ventura, 2023). Global unemployment rates for 2023 were projected to be 208 million people with an unemployment rate of 5.8% (Ventura, 2023). Industry experts indicated COVID-19 work from home abilities were likely to become mainstream if given enough time, same as digitisation of processes and differing work force employees. The same report also indicated fears regarding Artificial Intelligence (AI) taking over menial tasks has increased over the same period. (Ventura, 2023).

CBS news released 'The Great Dying: Earth's largest-ever mass extinction is a warning for humanity' in 2021 (Berardelli & Niemczyk, 2021). This article discussed overconsumption, unsustainable practices and greenhouse gases as the main challenges. It also discussed the Permian-Triassic Mass Extinction, or the Great Dying. This is where 90% of ocean life and 70% of life on land was no longer. There are similarities to this Great Dying and what we see on Earth today.

The release of greenhouse gases today is faster than it was 250 million years ago. Release of carbon dioxide is 100 times faster than it should naturally occur. The planet is warming 10 times faster than in 65 million years. The oceans are acidifying 100 times faster than in 20 million years. The oxygen dead zones in oceans have increased 10 times since 1950.



The World Wildlife Fund (WWF) is concerned about the sixth mass extinction and what, if anything, we can do about it (World Wildlife Fund, 2024). They indicate the current mass extinction is being caused by human activity, such as unsustainable use of land, water and energy use, and climate change. Food production is using 40% of all land; and agriculture has assisted with 90% of global deforestation and uses 70% of Earth's freshwater resources. The WWF indicate we should cut carbon emissions under the Paris

Agreement and limit global warming to 1.5 degrees Celsius; support the America the Beautiful initiative to conserve 30% of US lands and waters by 2030; conserve at least 30% of lands, inland waters, and oceans worldwide; shift corporate behaviour with consumer choices and demand accountability from political leaders.

With all of these 'papercuts', how are we going to be able to move forward? Start at the grassroots level and go from there. Grow your own vegies, buy products made ethically, and don't forget – reduce, reuse, recycle.

References

Akbari, M. et al., 2022. The Evolution of Food Security: Where Are We Now, Where Should We Go Next?. *sustainability*, 15 March.pp. 1-27.

Berardelli, J. & Niemczyk, K., 2021. *The Great Dying: Earth's largest-ever mass extinction is a warning for humanity*. [Online]

Available at: <https://www.cbsnews.com/news/great-dying-permian-triassic-extinction-event-warning-humanity/> [Accessed 06 February 2024].

Conca, J., 2020. *Nature Dying By A Thousand Cuts*. [Online]

Available at: <https://www.forbes.com/sites/jamesconca/2020/09/18/nature-dying-by-a-thousand-cuts/?sh=476182c04eb5> [Accessed 01 August 2023].

Ding, Y., Min, S., Wang, X. & Yu, X., 2022. Memory of famine: The persistent impact of famine experience on food waste behaviour. *China Economic Review*, 06 April .pp. 1-26.

Hadgelias, G., 2022. *How much can your landlord increase your rent by and can you negotiate?*. [Online]

Available at: <https://raywhitepaddington.com.au/news/how-much-can-your-landlord-increase-your-rent-by-and-can-you-negotiate> [Accessed 03 August 2023].

Morin-Crini, N. et al., 2022. Worldwide cases of water pollution by emerging contaminants: a review. *Environmental Chemistry Letters*, 18 April.pp. 2311-2338.

NASA, 2023. *Global Warming vs. Climate Change*. [Online]
Available at: <https://climate.nasa.gov/global-warming-vs-climate-change/#:~:text=Global%20warming%20is%20the%20long,gas%20levels%20in%20Earth's%20atmosphere.>
[Accessed 01 August 2023].

National Geographic, 2023. *Light Pollution*. [Online]
Available at: <https://education.nationalgeographic.org/resource/light-pollution/>
[Accessed 01 August 2023].

Omer, S., 2023. *Global hunger crisis: Famine closes in*. [Online]
Available at: <https://www.worldvision.org/hunger-news-stories/global-hunger-crisis-famine#:~:text=Today%2C%20nearly%2045%20million%20people,to%20death%20if%20not%20treated.>
[Accessed 03 August 2023].

Real Estate Institute of Australia, 2023. *The REIA Story*. [Online]
Available at: <https://reia.com.au/about/> [Accessed 03 August 2023].

Umarjonovna, D. D. & Gulomjonovna, Y. Y., 2022. *Challenges of Food Security*, Berlin, Germany: International Conference on Research in Humanities, Applied Sciences and Education.

Ventura, L., 2023. *Unemployment Rates Around the World 2023*. [Online]
Available at: <https://www.gfmag.com/global-data/economic-data/worlds-unemployment-rates#:~:text=Young%20people%20between%2015%20and,an%20unemployment%20rate%20of%205.8%25.>
[Accessed 03 August 2023].

World Health Organization, 2023. *Air pollution*. [Online]
Available at: https://www.who.int/health-topics/air-pollution#tab=tab_1
[Accessed 01 August 2023].

World Wildlife Fund, 2022. *Living Planet Report 2022*. [Online]
Available at: <https://livingplanet.panda.org/>
[Accessed 01 August 2023].

World Wildlife Fund, 2024. *What is the sixth mass extinction and what can we do about it?*. [Online]
Available at: <https://www.worldwildlife.org/stories/what-is-the-sixth-mass-extinction-and-what-can-we-do-about-it>
[Accessed 07 February 2024].

Zhang, X. et al., 2022. Drought propagation under global warming: Characteristics, approaches, processes, and controlling factors. *Science of the Total Environment*, 13 May.pp. 1-19.