



Householders' Options to Protect the Environment Inc.

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HOPE E-news Bulletin 2024 #03 --- March 2024

The following items have been gathered from various e: newsletters received by HOPE in recent times; and/or prepared specifically by HOPE members and supporters. If you have any news to contribute, please forward to office@hopeaustralia.org.au . Deadline for articles is 15th day of the month.

Editorial

Welcome to the March issue of the newsletter! This edition explores medical waste and disposal, Earth Overshoot Day and carbon capture and storage. We also look at climate change and adaption again, this time from one of our researchers in Fiji.

Kind regards,

Nina Stick, Newsletter Editor – HOPE Inc.

2024 Environmental Observances

March

3 [World Wildlife Day](#)

5 [International Day for Disarmament and Non-Proliferation Awareness](#)

21 [International Day of Forests](#)

22 [World Water Day](#)

23 [World Meteorological Day](#)

30 [International Day of Zero Waste](#)

April

22 [International Mother Earth Day](#)

May

11 [World Migratory Bird Day](#)

Annual Pledge/Donation

<http://www.hopeaustralia.org.au/annual-pledgedonation/>

We invite members and supporters to consider making an annual financial contribution to help cover our operating costs of approximately \$20,500 p.a.

Currently, our income is derived from project grants, fund-raising, corporate sponsorship and donations, but falls well short of our requirements.

Your financial support, by way of an annual pledge or donation, will considerably help us to achieve better financial viability.

Office News

Update on 2024 Projects, Campaigns and Event Activities

Carried forward grant applications

- Qld GCBF: Nest Boxes Project – for birds and other tree animals -> *Grant acquitted on 16/02/24*
- Australian Communities Foundation (ACF): Laptop (reactivated Sept 2023) – *awaiting approval*
- Federal Volunteer Grant program: 2 laptops -> *Unsuccessful, 18 Jan 2024*
- Queensland Community Foundation (QCF): Website upgrade — *awaiting approval*

Projects – current and proposed

- Current projects, etc.
 - Special Report on Food Security — Fiona Berry – Institute for Sustainable Futures, University of Technology Sydney (UTS) -> *Ask Fiona for a progress report (email sent 10/02/2024)*
 - Special Report on Circular Economy – *now being handled by Callum Fisher (as of 14/02/24)*
 - Feature Article – Death by a Thousand Cuts (by Charmaine Turnbull) -> *Completed Feb 2024*
 - Commission from Biodynamic Agriculture Australia (BAA) Ltd to develop promotional material consisting of a “booklet of profiles” and a series of podcasts -> *Completed Dec 2023*
 - *Issues with ‘podcast’ material raised by BAA staff has been addressed by Andrew (10/02/24)*
 - Website hosting transfer; and conversion of content to WordPress (being undertaken by Communications & Computers Support (CCS), Toowoomba) -> *Completed Jan 2024*
 - To develop and publish a booklet on “Stories of Menfolk Environmental Champions of Our Region” who have made, and are making, to the Protection and Conservation of our Environment.
 - *Submitted online grant applications to:*
 - *Toowoomba Regional Council’s Environment Program (16/02/2) -> Unsuccessful 19/02/24*
 - *Brisbane Airport’s Community Giving Fund (16/02/24)*
 - *Toowoomba Regional Council’s Community Support Program (20/02/24)*
 - Provide an information display at this year’s Logan Eco Action Festival (LEAF) on Sunday 2 June 2024
- Proposed webinars, etc. (stand-alone or in partnership with others)
 - Awaiting responses from Transition (Towns) Australia; Saul Griffith’s “The Big Switch”, Electrify 4350 with Renew Toowoomba; a presentation by Dr Geoffrey Woolcock, University of Southern Queensland (UniSQ), on the work of [Australian National Development Index – ANDI](#); [Climate and Health Alliance \(caha.org.au\)](#); [Permaculture Education Institute](#); and [Sustainable Population Australia](#)
→ *Issued fresh invitations to agencies listed above (11/02/24)*

HOPE Inc. award nominations 2024

HOPE Inc. has been nominated for two awards so far this year.

The 2024 National Landcare award nomination highlighted HOPE’s participation in community-care landcare efforts over recent years. These have included collaborating with Toowoomba West Men’s Shed (TWMS) to construct 150 nest boxes for tree-dwelling species delivered to local landcarers free-of-charge, drone flyovers over Highfields Falls Park (Highfields) and Dingo Mountain Conservation Area (Crows Nest) as well as organising the Weeds Forum in Toowoomba in 2023 in collaboration with the University of Southern Queensland (UniSQ). The Landcare awards nominations closed on 1 March 2024 with recipients of the award to be announced in the coming months.

HOPE has also been nominated for the Environmental and Climate Philanthropy Award which funds projects or organisations that support or have a specific co-benefit to the environment. HOPE was nominated for the nest box project which has seen great demand for more nest boxes to be constructed due to its success. The project demonstrated a budget friendly approach to mitigate habitat loss of tree-dwelling species such as bats, birds and possums. HOPE collaborated with TWMS to build nest boxes at \$45 per nest box from donated fence palings. The Australia Philanthropy award nominations closed on 25 February, and we wait to hear the result of the nomination soon.

Report on Nesting Boxes project

Tuesday, 27 February 2024

I am pleased to announce the successful completion of our Nesting Boxes project.

Thanks to funding for the Queensland Gambling Community Benefit Fund (GCBF), we were able to engage the Toowoomba West Men's Shed (TWMS) to construct a variety of nesting boxes totalling 150 in number – and, distribute them free-of-charge to 12 community groups and 8 wildlife carers in the Toowoomba region. The nesting boxes constructed mainly of donated old hardwood fence palings are both sturdy and long-lasting.

The Nesting Boxes Project generated a lot of interest; and when the boxes were distributed, there were many expressions of delight and appreciation!

The project has proven to be a great collaboration with the Toowoomba West Men's Shed (TWMS)!

Frank Ondrus

Frank Ondrus, President – HOPE Inc.



Rod Heading (TWMS) working on one of the nest boxes



Placing a nest box high up in the tree



Galahs checking out a potential home

Feature Articles

Medical Waste and Disposal

Written by Nisha Wajid, HOPE researcher (NSW)

Medical waste and disposal or more appropriately termed '*clinical waste management*' allows us to understand and instigate the best method to dispose of medical waste from hospitals as well as other healthcare practices. Clinical waste should be clearly labeled in a leak proof bag or container and transported to a central disposal area at the earliest opportunity. The yellow clinical waste bags with displayed biohazard symbols are ideal and are then collected.



Image 1. Clinical Waste Management (2019). [Sharpsmart](#)

According to NSW Health waste items include:

- Human tissue
- Body fluids or blood
- Visibly stained materials or equipment (with bodily fluids)
- Laboratory specimens
- Lab cultures
- Animal tissue as well as other animal waste.

As a Biomedical Engineering student myself, we are aware and educated on improper segregation and disposal of medical waste which has the potential to contaminate groundwater sources. This unethical means will in turn infect humans and marine wildlife. Contaminating groundwater and polluting waterways poses an extreme danger to the environment, endangering aquatic life and damaging irrigation systems. Statistically speaking, an estimated 8 million metric tons of plastics enter the ocean on an annual basis; during the COVID-19 pandemic there was an evident increase of plastic pollution in oceans by 10 times the normal annual range.

According to reports from the World Health Organisation, incineration is the preferred and adequate manner to get rid of equipment used in medical research. Aside from contaminating the environment it also protects humans and animals from highly infectious viruses and diseases such as Swine Flu or Ebola.

Discussion

Compared to general waste, medical waste poses a higher risk of environmental pollution as it carries said viruses, germs, chemical pollutants and more dangerously, radioactive materials. We are aware that radioactive materials are harmful to humans such that they can damage the DNA in our cells. High doses of radiation can potentially be life-threatening leading to cancer later in life. It has the capability to damage tissue due to its sufficient energy. Therefore, mismanagement of harmful radioactive materials can cause air, water, surfaces, soil, plants, people and animals to become contaminated.

Every country has its respective health care facilities and providers who generate biomedical waste and its appropriate management, not posing a danger to the environment or reducing the likelihood of it to do so. A primary example is Veolia, which provides integrated solutions for the identification, collection, transportation, sterilization and disposal of medical waste. With the team keeping track and documenting to ensure all aspects are abiding by the set regulations, the medical waste disposal can be managed responsibly. Similarly, Remondis Australia ensures that experts are involved in the collection, transportation and processing of clinical and medical waste including equipment, PPE and regulated chemical waste.

With research comes advancements and statistically, there has been a drastic growth in the production of medical waste with a parallel in medical and biomedical treatments. Developing countries such as Iran, Pakistan

and Mongolia have poorer management systems compared to developed countries. Countermeasures are taken to address this specifically in Australia highlighting the reformed law:

Clinical waste means waste that has the potential to cause disease, including, for example, the following—

- (a) animal waste*
- (b) discarded sharps*
- (c) human tissue waste*
- (d) laboratory waste.*

*Clinical waste is prescribed **category 1** regulated waste under the Environmental Protection Regulation 2019 (EP Regulation). Activities involving the storage, transport, reprocessing or treatment of regulated waste will generally require an environmental authority under the Environmental Protection Act 1994.*

Similarly, the Pakistan Environmental Protection Agency released their respective statement emphasizing on hospital-based research where 'A hospital waste management plan shall be prepared by a hospital or health care facility for approval by the clinical waste management team and be deemed appropriate over several factors' - abiding by this will play through the butterfly effect and a small change can, in hindsight, tackle the global issue.

It is difficult to quantify the amount of waste thrown out, however it is important to alert health professionals and researchers about waste that ends up in landfill with problematic chemicals potentially leaching into the soil and groundwater.

Conclusion

Companies and healthcare facilities have started to take the initiative and are aiming to provide adequate training in waste handling whilst setting appropriate regulations which have been developed through comprehensive guidance. Colour codes assist professionals to identify the type of waste they are handling. They are then stored, picked up and then shipped.

Waste management plans are regularly updated and medical waste disposal experts can be readily contacted to gain information on their disposal and services.

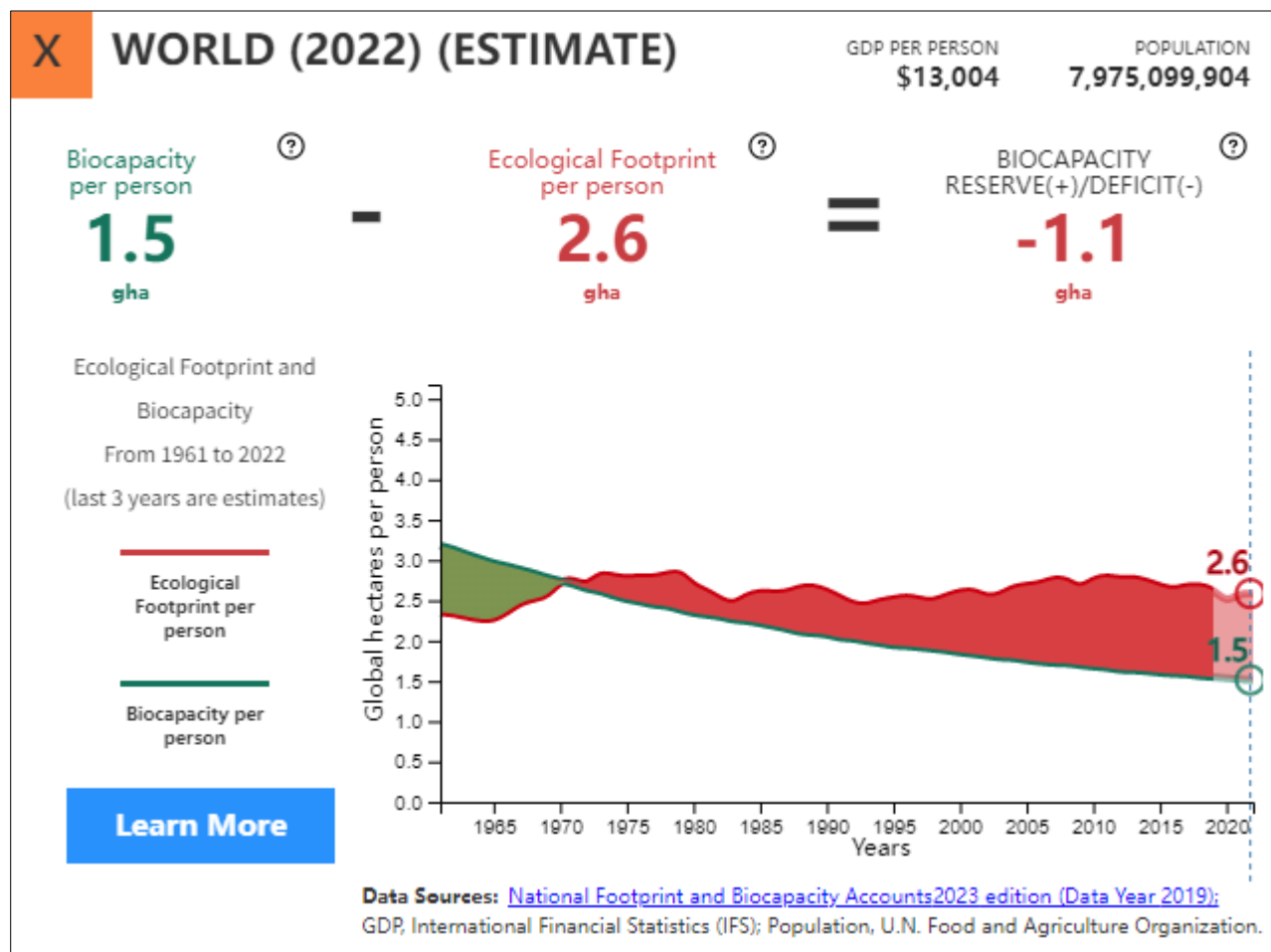
References

- 1) M. Chamberlain. 'Effects of Biomedical Waste on the Environment' *Daniels Health* (26th November 2020), [Healthcare Waste Management](#)
Access date: 25th of December 2023
 - 2) *Environmental Health* (29th June 2023). NSW Health. [Clinical waste management](#)
 - 3) S.V. Zeebroeck. 'The Environmental Impact of Medical Waste Disposal' - *Earth.org* (22nd July 2022), [Medical Waste](#)
 - 4) Veolia. 2022. 'Medical Waste'. [ANZ](#)
 - 5) Y. Wei, M. Cui, Z. Ye et al. 'Environmental challenges from the increasing medical waste since SARS outbreak' (2020). [PubMed Central](#)
 - 6) QLD Government [Department of Environment and Science]. 'Clinical and related waste' (2023). [Guideline](#)
 - 7) Remondis 2023. 'Clinical & Medical' [Clinical medical waste](#)
 - 8) HOPE Inc. (Australia) 2023. 'Welcome to HOPE' [Householders' Options to Protect the Environment](#)
 - 9) Hospital & Healthcare. A. Bryan et al.- A major environmental burden (7th Jan 2019). [Clinical waste](#)
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Review of “Estimating the Date of Earth Overshoot Day 2023”

By Gabriel Malandu, HOPE researcher Qld

Based on the information contained in the “*Estimating the date of Earth Overshoot Day 2023*” report (May, 2023), the Earth Overshoot Day represents a significant milestone in our annual timeline. It serves as a symbolic representation of the moment when the collective demands of humanity exceed the Earth's capacity to regenerate its resources. The calculation is dependent upon the utilisation of the National Footprint and Biocapacity Accounts (NFBA), which are derived from datasets provided by the United Nations (UN). Nevertheless, in order to address the inherent delay in these records, it becomes crucial to incorporate the practice of nowcasting, which is essential for obtaining more current and timely insights.



In the paper, we find that nowcasting is a valuable instrument for acquiring timely insights. In contrast to traditional forecasting methods, nowcasting leverages up-to-date data to provide estimations specifically for the ongoing year, with a focus on projections for the year 2023. This approach is of significant importance for decision-makers as it provides them with a quick comprehension of how resource utilisation and decision-making influence global trends. In the context of Earth Overshoot Day, the practice of nowcasting assumes heightened significance as it enables us to meticulously analyse the consequences of events such as the COVID-19 lockdowns on different nations.

This paper also explored facets of ecological footprints. The concept of the Ecological Footprint seeks to ascertain the biologically productive land area necessary to sustainably fulfil the various needs of humanity. These needs encompass sustenance, infrastructure, energy generation, and waste assimilation, among others. The utilisation of "global hectares" serves to enhance comparability and additional analysis, enabling the assessment of biocapacity and Ecological Footprint in a standardised manner. The National Footprint and Biocapacity Accounts employ a robust dataset consisting of 15,000 data points per country per year, thereby ensuring a thorough and dependable assessment. In 2023, the Ecological Footprint has experienced a modest increase of 0.2%, while biocapacity has seen a slightly higher rise of 0.3%. Therefore, there is a slight reduction of 0.1% in the Footprint to biocapacity ratio, leading to a postponement of Earth Overshoot Day by a span of 8 hours, shifting it from August 1st to August 2nd 2023. According to the current analysis of carbon footprint, utilising data from the International Energy Agency and Carbon Monitor, there appears to be a slight decrease of 0.3% anticipated from 2022 to 2023.

The COVID-19 pandemic for instance, has had a significant impact on carbon footprints. The implementation of lockdown measures in 2020 initially resulted in a transient reduction in carbon dioxide (CO₂) emissions. However, these emissions experienced a subsequent recovery, ultimately concluding at a level 5% lower than that observed in 2019. In the year 2021, glasshouse gas emissions reverted to the levels observed in 2019, followed by a subsequent rise of 1.5% from 2021 to 2022. According to the data on ocean carbon sequestration provided by the Global Carbon Project, there is a projected decrease of approximately 0.3% in the carbon footprint between the years 2022 and 2023.

In brief, the findings of Earth Overshoot Day 2023 and the subsequent nowcast outcomes emphasise the pressing need for prompt actions to mitigate our ecological footprint. Nowcasting is an immensely valuable tool that decision-makers can utilise to promptly address the ever-changing trends in our collective endeavour to strike a harmonious balance between human demand and the Earth's regenerative capacity. I believe Earth Overshoot Day represents a significant milestone in our annual timeline. It serves as a symbolic representation of the moment when the collective demands of humanity exceed the Earth's capacity to regenerate its resources. Ultimately, in order to address the inherent delay in these records, it becomes crucial to incorporate the practice of nowcasting, which is essential for obtaining more current and timely insights.

Carbon Capture and Storage – Yes or No?

Written by Frank Lee – HOPE Researcher NSW

Carbon capture and storage (CCS) involves capturing, transporting and storing greenhouse gas emissions from fossil fuel consumption into the ground (1). We can use solar or wind instead of fossil fuel power to generate renewable electricity without creating CO₂ emissions. However, it's tough for businesses like cement and lime companies to make its important products without generating high emissions (2). The information in this article, is a broad commentary on CCS in both Australia and internationally.

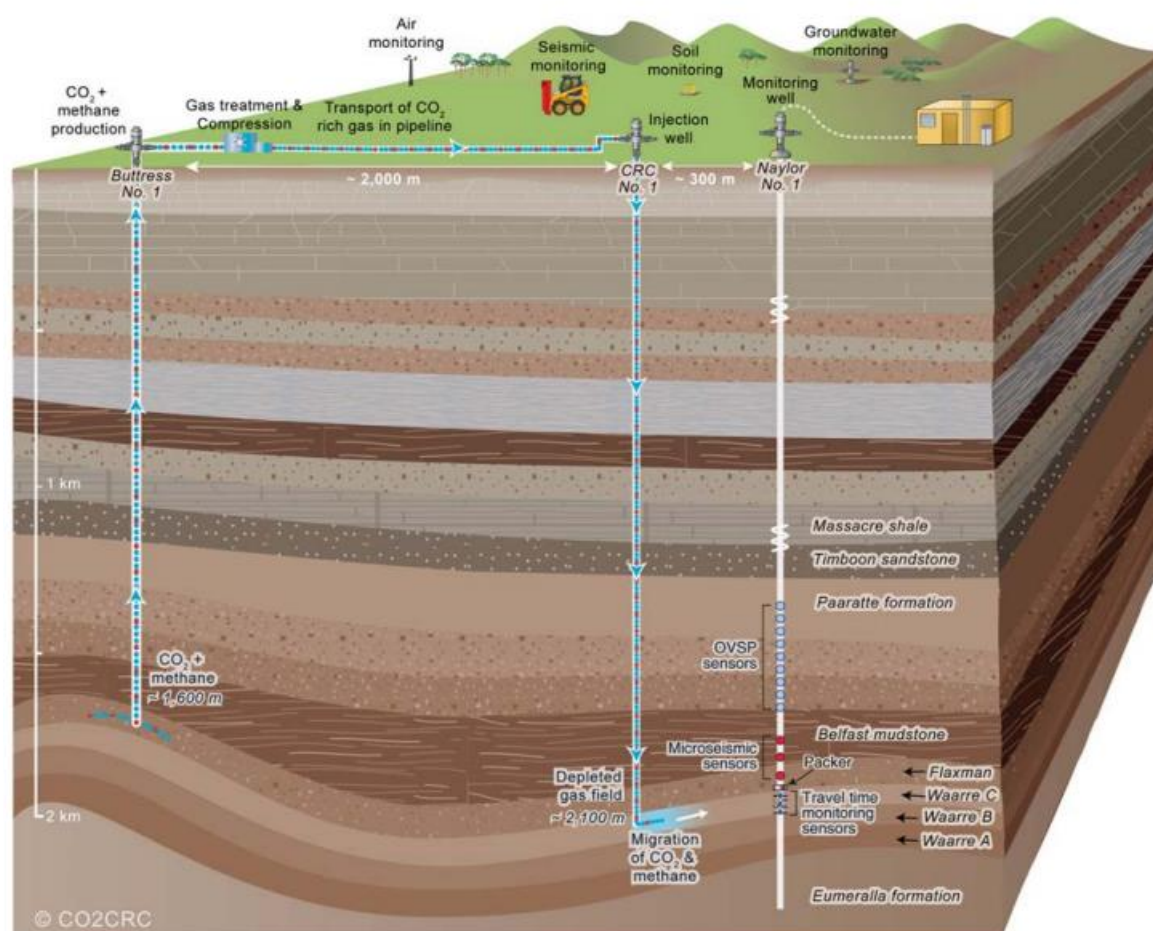


Figure 1: Otway Project, Australia

CCS in Australia

Australia has recognized the importance of CCS as a means to reduce greenhouse gas emissions and has developed a policy and government's commitment to advancing CCS technologies and provides a roadmap for their deployment. The government has provided funding such as Low Emissions Technology Development Fund (3) and Emissions Reduction Fund (4) to support CCS projects. Several CCS projects and initiatives have been undertaken in Australia. These include:

- a. Gorgon Project (5): Located in Western Australia, one of the world's largest CCS projects, it captures CO₂ from the natural gas production process and stores it underground.
- b. CarbonNet Project (6): Located in Victoria, it aims to establish a commercial-scale CCS network that could store industrial CO₂ emissions from multiple sources.
- c. Otway Project (7): Australia's first CCS demonstration project, it involved injecting and storing CO₂ in a depleted gas field in Victoria, providing valuable research and operational experience.

International CCS

Many countries have implemented policies and incentives to promote CCS deployment. These include carbon pricing mechanisms, tax credits, and research funding. The availability of suitable storage sites is crucial for CCS implementation (8). Globally, there are significant storage resources, including deep saline formations, depleted oil and gas reservoirs, and un-mineable coal seams. Developing the necessary infrastructure, such as pipelines for CO₂ transport, is an important aspect of CCS deployment.

To reduce CO₂ emissions, several countries have initiated CCS projects and research initiatives. Norway's Sleipner and Snøhvit projects (9), Canada's Boundary Dam project (10), and the United States' Petra Nova project (11) are notable examples. International collaboration, The Carbon Sequestration Leadership Forum (CSLF) is a global initiative for cooperation among governments, industry, and research organizations to advance CCS technologies and accelerating CCS deployment (12).

Challenges

Research has revealed that storing carbon dioxide underground is not an exact science and may be risky and uncertain with limited practical and long-term experience of permanently keeping CO₂ in the ground (9). Each CCS project has unique geology with storage performance changing over the time that constant high-quality monitoring and engineering is required. Some CCS risks can be identified but others remaining unknown until troubles materialize. These risks and the costs are not being made part of public discourse by either industry or government (13). Therefore, usage of CCS has to overcome the risk as well as high costs, public acceptance, supportive policies and regulations, advancements in technology, and global efforts.

Conclusion

Australia and the international community have recognized the importance of carbon capture and storage as a means to reduce greenhouse gas emissions. Australia has made significant progress in developing CCS projects and establishing a supportive policy framework. Internationally, several countries are actively pursuing CCS initiatives, and collaborative efforts are underway to advance the technology. Overcoming challenges will be crucial in achieving global climate change mitigation goals.

References:

- 1: What is Carbon Capture and Storage? | Climate Council:
<https://www.climatecouncil.org.au/resources/what-is-carbon-capture-and-storage/>
- 2: A concrete step forward: Australia's ambitious plan to cut cement and lime emissions - CSIRO:
<https://www.csiro.au/en/news/All/Articles/2023/November/CCUS-Roadmap>
- 3: Government establishes \$1 billion fund to develop low emissions technology | Global Australia:
<https://www.globalaustralia.gov.au/news-and-resources/news-items/government-establishes-1-billion-fund-develop-low-emissions-technology#:~:text=The%20Australian%20Government%20will%20establish%20a%20%241%20billion,Corporation%20with%20%24500%20million%20from%20private%20sector%20investors.>
- 4: Emissions Reduction Fund ACCU Scheme (cleanenergyregulator.gov.au):
<https://www.cleanenergyregulator.gov.au/erf>
- 5: World's biggest carbon capture plant running at one third capacity, Chevron Australia reveals - ABC News:
<https://www.abc.net.au/news/2023-05-17/chevron-australia-carbon-capture-storage-gorgon-third-capacity/102357652>
- 6: CarbonNet project's pipeline approved | Gippsland Times:
<https://www.gippslandtimes.com.au/news/2023/11/06/carbonnet-projects-pipeline-approved/>
- 7: Otway Basin Pilot Project, Victoria, Australia:
<https://fossil.energy.gov/archives/csllf/sites/default/files/documents/OtwayBasinPilotProjectPoster0307.pdf>
- 8: Environmental Guidelines for Carbon Dioxide Capture and Geological Storage (nepc.gov.au):
<https://www.nepc.gov.au/sites/default/files/2022-09/environmental-guidelines-ccs.pdf>
- 9: Norway's Sleipner and Snøhvit CCS: Industry models or cautionary tales? | IEEFA:
<https://ieefa.org/resources/norways-sleipner-and-snohvit-ccs-industry-models-or-cautionary-theses>

10: Boundary Dam Carbon Capture and Storage Project - Canada | UNFCCC: <https://unfccc.int/climate-action/momentum-for-change/activity-database/boundary-dam-carbon-capture-and-storage-project>

11: Carbon capture project back at Texas coal plant after 3-year shutdown | Reuters: <https://www.reuters.com/business/energy/carbon-capture-project-back-texas-coal-plant-after-3-year-shutdown-2023-09-14/>

12: About CSLF | Carbon Sequestration Leadership Forum (energy.gov): <https://fossil.energy.gov/archives/cslf/About-CSLF.html>

13: Norway's carbon capture and storage projects augur geological risks in global aspirations to bury carbon dioxide | IEEFA: <https://ieefa.org/articles/norways-carbon-capture-and-storage-projects-augur-geological-risks-global-aspirations-bury>

National News

GM-Free Australia Alliance



The GM-Free Australia Alliance is an independent, not-for-profit alliance of organisations and individuals sharing a common concern about GM (Genetic Modification or Genetic Manipulation) in Australia.

Since the US Food and Drug Administration (FDA) first approved the Flavr Savr tomato in 1994, both scientific and public opinion has been split over the benefits and risks to human health and the wider environment of GM organisms.

Many countries in Europe, for example, have either banned or severely restricted the cultivation of GM crops due to public fears.

Because of the resistance to commercial cultivation of GM crops, there are few long-term studies available on the impacts of GM crops and, therefore, the argument has not been satisfactorily resolved either way.

In Australia, there are three GM crops grown commercially. These are: cotton; canola and safflower, along with blue carnations. Experiment trials have been allowed on a range of others. Tasmania is the only State in Australia to have a GM moratorium, whilst the ACT only allows experimental trials.

The GM-Free Australia Alliance is opposed to the *genetic engineering, editing, modification and manipulation of living organisms*.

To find out more, visit: www.gmfreeaustralia.org.au/about

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International News

CLIMATE CHANGE ADAPTATION AND ITS MANY FACETS IN FIJI

By Shivang Ambasht, Postgraduate Certificate in Arts - Massey University (NZ). Alternate Qualification with emphasis on Environmental Sustainability.

Climate aid has changed over time in conjunction with the integration of other sectors such as agriculture and education. The need to formulate more policies that address the issues of more than one sector at a time and such an intersectional approach can be seen as the plus point of Fiji's bilateral partnerships - the most important being New Zealand (NZ) & and Australia. The magnitude of the climate change ordeal cannot simply be dealt with by adaptation, instead requires collaboration and action at all levels, so that future generations can become eco-conscious and have a chance at meeting their needs and not living in constant fear and anxiety that they may not live to see tomorrow (as previous generations of children have done).



According to the Fiji Bureau of Statistics (FBoS, 2018) the 2017 population and housing census, which happens every 10 years, folded to 884,887 persons with higher female representation in the central division and urban areas. Nonetheless, there are huge disparities in labour force representation with females accounting for only 37.4% compared to males at 76.4%. Although the number of people living in rural areas has decreased since 2007 due to migration, there is no doubt the pandemic has worsened things alongside climate change which remains variable in its intensity throughout history. (FBoS, 2018)

Pacific Island nations have become vulnerable over time as climate change continues to worsen. The friction of distance from the main markets means that the Pacific is seen as a measuring stick to determine how far capitalism has shaken vulnerable people. This is camouflaged by showing how resilient Pacific Islanders have become during the cyclone season which happens more frequently and at higher intensities. The correlating factors also include the debt that Fiji has accumulated which stands at 9.6 billion dollars in 2023 and equates to 81.8 % of the debt to GDP ratio (FijiVillage,2023). This further means that most of the population does not have the right means to brace themselves for climate disaster e.g., cyclone, tsunami and earthquakes and only puts more pressure on the Fijian Government to provide for its people who are mostly taken by surprise. The acceleration of capitalism as we know continues to happen regardless of whatever conclusion is reached at the UN Climate Change Conferences. To counteract this helplessness, Fiji has received aid from New Zealand and Australia from day one and has always relied on funding whether it be for climate resiliency agendas or any other Government projects relating to the welfare of people. Tropical Cyclone Yasa made landfall in 2020 and affected the livelihoods of more than 90,000 people being displaced from their homes and brought into evacuation centres (IFRC,2021). Furthermore, COVID-19 led to a nationwide lockdown which again made it impossible to rebuild the areas heavily damaged during the cyclone season, especially the Northern Division. To add to that, movement restrictions were in place for at least 8 more months which meant that Fiji had to start preparing for the next cyclone season without adequate supplies being available for purchasing. As we know Fiji does not have the supply- chain capacity to produce high quality infrastructure development (IFRC,2021).

New Zealand is committed to making sure that less developed countries that are at the forefront of receiving climate aftershocks are given more focus, especially the Pacific region. NZ climate finance to Fiji is focused on building resilience and making sure indigenous voices are being heard on the global platform constantly. Climate disaster speaks of failure in transforming the world into a better place, subsequently failing the holistic agenda of Sustainable Development Goals which is in place til 2030. The pandemic showed a glimpse of the natural world healing itself and showing its true beauty to the entire world making sure humanity understands that it has been treading on the wrong course of action throughout its existence and that climate change is their

making. The New Zealand Government 2021 has a 1.3-billion-dollar climate change programme with more than half of the fund directed toward the Pacific region. Mitigation measures from the Ministry of Foreign Affairs and Trade (MFAT) Australia include helping Fiji recover from any climate disasters in a step-by-step response phase which includes providing food and water supplies mainly because Fiji amongst other PICs have no contribution to creating climate challenges. According to Pacific Regional Four-Year Plan, 2021, the MFAT makes sure it plans accordingly for the situation that arises and it also makes sure that regional communities and local experts are consulted to always provide efficient recovery. An example is the new road built for the Vatawai community in BA province which provided access to medical facilities, schools and even supermarkets hence indigenous knowledge was used to understand the risks that needed to be addressed primarily and only then did development of the project commence. The significance of this project emphasised that resilient structures can be built benefiting all members of the society i.e., children to old age. Such inclusivity ensures the safety of all in any climatic event and further acknowledges the success of strategic planning and implementation (Pacific Regional Four-Year Plan, 2021). Fiji and NZ have a much deeper relationship which stems from indigenous culture to the abolition of British rule, hence Governmental ties are only a means of formality since most indigenous people have been stripped of their rights, especially in staying connected to their land which allows them to practice spirituality and understand what Mother Earth needs for its sustenance (Harmsworth,2005). NZ's climate aid to Fiji allows for greater partnership on the ground level with Fijian communities which in turn directs more funds as time progresses.



According to (UNCDF,2020) the previously successful 13-year Pacific Financial Inclusion Programme is being used as a model to formulate a more powerful programme known as the Pacific Insurance and Climate Change Adaptation Programme to empower vulnerable people, especially from the Pacific region as they are the most at-risk with accelerated climatic events. Fijian women are affected a lot more hence the refurbished programme which seeks to make sure they are financially independent by working in major sectors which drive the Fijian economy such as tourism and agriculture (Jain et al,2020). This would also be topped by digital payment which needs to occur without any delay and, therefore, enough digital channels must be made available at affordable prices which will complement the work being done toward leveraging the relative ease of the digital era and ensuring the work being done toward the seventeen sustainable development goals (UNCDF,2020). As Fijian women become empowered not just through finance but knowledge acquisition and subsequent knowledge sharing, I believe, will allow many families to plan of the cyclone season. Two cyclones have been forecast for the 2023-2024 cyclone season by the Fiji Meteorological Service hence the advisory includes that all Fijians take preventative measures so that human mobility is not compromised, rather Fijians will move forward through such adaptation measures (Jain et al,2020). The newly developed Pacific Insurance and Climate Change Adaptation Programme speaks the language of the commitment NZ has toward making sure Fiji continues to show elevated levels of resilience toward climate change.

Fiji is a vulnerable country and is largely isolated from the main markets, so it makes sense why most of the global population did not have a clue about its existence but as time progresses, humanity's greatest threat - climate change - has elevated Fiji to the global platform and on top of that, social media with its overbearing presence has finally induced something positive such as advocating for climate justice. Fiji has received bilateral aid from their closest partners New Zealand and Australia and has not faltered in maintaining their promises and have gone above and beyond to make sure Fiji remains equipped to adapt to the variability aspect of climate change.

References:

1. 2017 Population and Housing Census Release 1 Age, Sex, Geography and Economic Activity 2018. Suva, Fiji: Fiji Bureau of Statistics. Available at: <https://www.statsfiji.gov.fj>.
2. Fiji Four Year Plan 2021. Wellington, New Zealand: Ministry of Foreign Affairs & Trade. Available at: <https://www.mfat.govt.nz/assets/Aid/4YPs-2021-24/Pacific-Regional-4YP.pdf>
3. Harmsworth, G. (2005). Good practice guidelines for working with Tangata Whenua and Māori organisations: Consolidating our learning. Landcare Research contract report LC, 405, 091.
4. IFRC (International Federation of Red Cross and Red Crescent Societies) (2021a), "Fiji/Pacific: Tropical Cyclone Yasa/Ana - Operation Update Report", available at: <https://reliefweb.int/report/fiji/fijipacific-tropical-cyclone-yasaana-operation-update-report-n-4-drefn-mdrfj005>
5. Jain, D.K., Chida, A., Pathak, R.D. et al. Climate risk insurance in Pacific Small Island Developing States: possibilities, challenges and vulnerabilities—a comprehensive review. Mitig Adapt Strategy Glob Change 27, 26 (2022). <https://doi.org/10.1007/s11027-022-10002-z>
6. Pacific Regional Four-Year Plan 2021. Wellington, North Island, New Zealand. Available at: <https://www.mfat.govt.nz/assets/Aid/4YPs-2021-24/Pacific-Regional-4YP.pdf>

Links to HOPE's 2 podcast series

--- <https://www.hopeaustralia.org.au/resources/podcasts/>

Holistic Management
Regenerative agriculture
Wildlife Caring
Weaving Social Fabric
- and other topics

QUEENSLAND WOMEN
(inspiring stories from)
ENVIRONMENTAL CHAMPIONS

A podcast series produced for
Householders' Options to Protect the
Environment (HOPE) Inc. (Australia)

Hearing, acknowledging and celebrating the contribution that women of
the Darling Downs and S.E. Queensland have made and are making to the
protection and conservation of the environment.

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