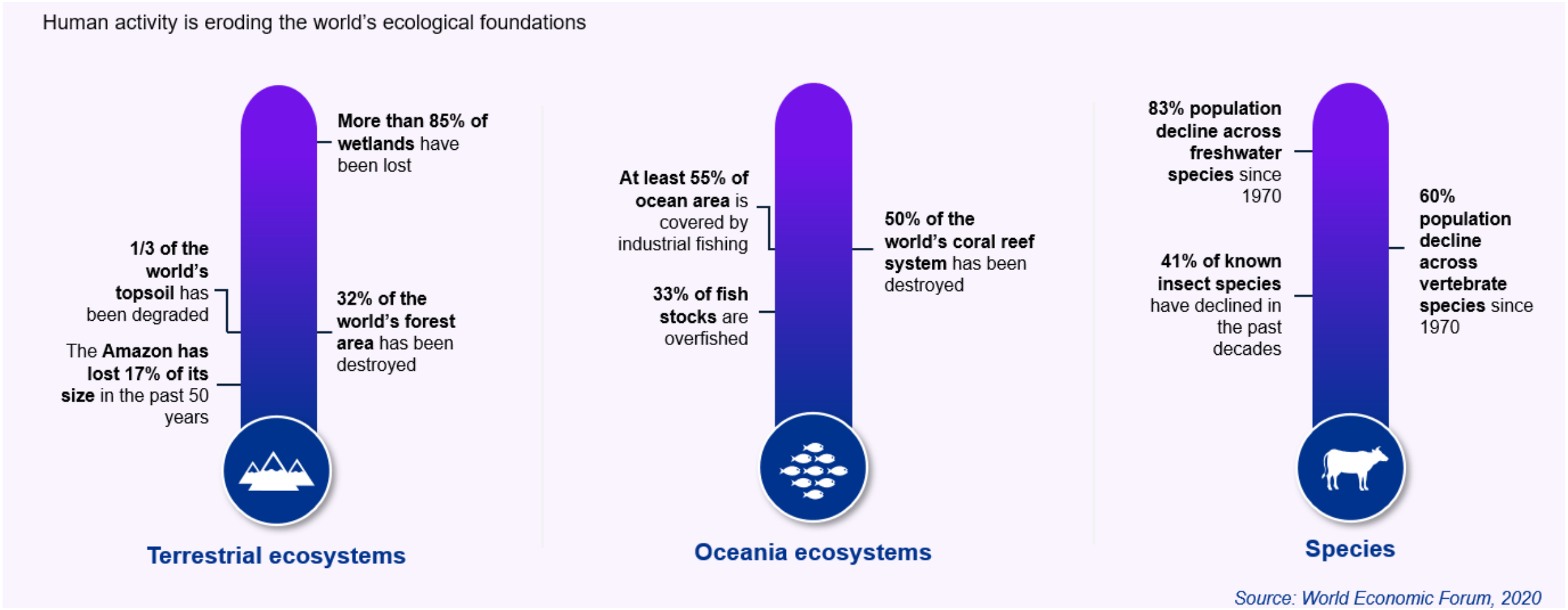
Biodiversity and nature-based solutions – what is the world growing?

Trafinz Sept 2023

Dr Cathy Bebelman

Let's go there

Nature loss is profound



55% of global GDP is at risk from nature loss: we are highly dependent on nature

Nature loss is increasingly common

CONSERVATION

Government launches plan to turn around state of New Zealand's biodiversity

20/04/2022 Imogen Wells

Emperor penguins: thousands of chicks in Antarctica die due to record-low sea ice levels

Breeding failures in the Bellingshausen Sea 'without precedent' as multiple colonies across large region all fail in a single season

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NEW ZEALAND / ENVIRONMENT

Erosion is costing NZ up to $300m a year

9:03 pm on 19 April 2019 Share this

Kate Gudsell, Environment Reporter @kategudsell kate.gudsell@rnz.co.nz

The government's report on the state of the environment estimates the economic losses associated with soil erosion and landslides is at least $250 to $300 million a year.

NEW ZEALAND / ENVIRONMENT

More than 80% of New Zealand's low-lying lakes and rivers surveyed 'poor' or 'very poor'

5:35 pm on 25 September 2022 Share this

How Te Mana o te Wai will affect farmers

The Country

19 Nov, 2020 11:00 AM 3 mins to read Save Share

Photo / File

Te Mana o te Wai underpins the National Policy for Freshwater Management which was announced in August.

This concept puts the highest value on the health of freshwater ecosystems throughout New Zealand and will have a significant impact on farmers.

Te Mana o te Wai refers to the mana of water and emphasises the need for waterways to be kept healthy for their own sake.

The policy states that by protecting and prioritising the health of water - the wellbeing of the wider environment is protected.

Reefs made from trees could help restore biodiversity, study finds

Researchers say their pyramid-shaped pear tree structures could help certain marine habitats recover

Mātauranga Māori 'needed' to help fight the world's biodiversity crisis

Carmen Parahi · 07:30, Dec 02 2019

LISA DUNCAN/NGA PAKAKA MORE/ILI O TE WHENUA

Marlborough students take a tour to learn about local Maori history.

The world is in the grip of a biodiversity crisis, but the issue is often lost in the loud clamour over climate change.

The warming planet is just one of a number of human-made factors including habitat change, invasive species, over-exploitation and pollution pushing the planet to the brink of an ecological collapse.

In May, the Intergovernmental Science Policy Platform on Biodiversity released its ecosystems

New Zealan among the of extinctio

'Greed and destruction': Call for closure of all scallop fisheries

RNZ

29 Mar, 2022 08:24 PM 3 mins to read Save Share

here are now just five tonnes of scallops allowed to be commercially harvested from New Zealand waters. hoto / 123RF

Sperm whale beaching: Rāhui placed on Coromandel beach

Hauraki Coromandel Post

25 Oct, 2022 02:14 PM Quick Read Save Share

Ngāti Hei placed a rāhui over Wharekaho Beach after the deceased whale was found in Matapaua Bay on Saturday morning. Photo / NZME

Auckland Transport
An Auckland Council Organisation

Biodiversity

- The variety of biological life found on earth – including ecosystems, species and genes
- Estimate of 8.7 millions species, with 2.1 million in the ocean
- Important as it provides the world we live in – clean air, freshwater, food, regulates temperature, medicines, fuel etc

As ecosystems and habitats degrade and disappear worldwide, biodiversity — the interconnectedness of all forms of life on our planet — is in jeopardy.

The world is finally recognizing this, and the landscape is changing

The world is growing more biodiversity-related legislation:

- In mid-July 2023 EU passed Regeneration Legislation to mandate a minimum of 10% canopy cover in urban streets
- In late 2023 it will be a legal requirement to ensure 10% BNG for all development in the UK.

Biodiversity Net Gain

Biodiversity net gain is the term used to describe the process of increasing the overall biodiversity value of a development site. The 'net gain' in particular means that the development site enhances the value by completion, rather than decreasing it.

Biodiversity: COP15

In December 2022, leaders from nearly 200 nations adopted a landmark UN agreement to reverse nature's rapid decline before it's too late. Known as the Kunming-Montreal Global Biodiversity Framework, it calls for protecting 30% of the planet's land, ocean, and inland waters and includes 23 other targets to help restore and protect ecosystems and endangered species worldwide. New Zealand is part of this.

Taskforce for Nature-related Financial Disclosures or TNFD

Climate-related Financial Disclosures

NZ External Reporting Board (XRB) has mandated that financial institutions publicly disclose the cost of the risk of climate to their business

Provides greater transparency for shareholders and potential investors

Auckland Council issues green bonds – so the Council family must disclose

Nature-related Financial Disclosures: Framework to be finalized Sept 2023

Aims to direct investment away from nature-degrading activities towards nature-positive ones

The Taskforce consists of 40 individual Taskforce Members representing financial institutions, corporates and market service providers with over US$20trn in assets.

Financial institutions and companies don't have the information they need to understand how nature impacts the organisation's immediate financial performance, or the longer-term financial risks how the organisation, positively or negatively, impacts nature.

Better information will allow financial institutions and companies to incorporate nature-related risks and opportunities into their strategic planning, risk management and asset allocation decisions.

How does this impact AT?

AT exists in a unique set of circumstances

AT is part of the Council family – Council issues green bonds so Council and AT must comply with TCFD – financial disclosure of the cost of climate change risk

When TNFD is fully developed (in Sept 2023), NZ accounting standards (XRB) are likely to pick it up and make it a mandatory add on to TCFD – will apply to AC and AT

Aotearoa Circle has released a legal opinion confirming that **directors have liability** for biodiversity

AT has a Board of Directors with Company Liability on their shoulders – different to Council. AT Board has liability NOW – no need to wait for TNFD to be implemented

Taking action now

AT is piloting the draft TNFD framework NOW to understand the implications of the transport system on biodiversity

AT acknowledges that TNFD and the United Nations *Natures Contribution to People* (NCP) approach is silent on indigenous perspectives, and we want to correct that in our work

AT is developing a modified framework which will include a te ao Māori lens

Hiikina te Wero: Environment Action Plan

The Plan establishes 5 goals with targets:

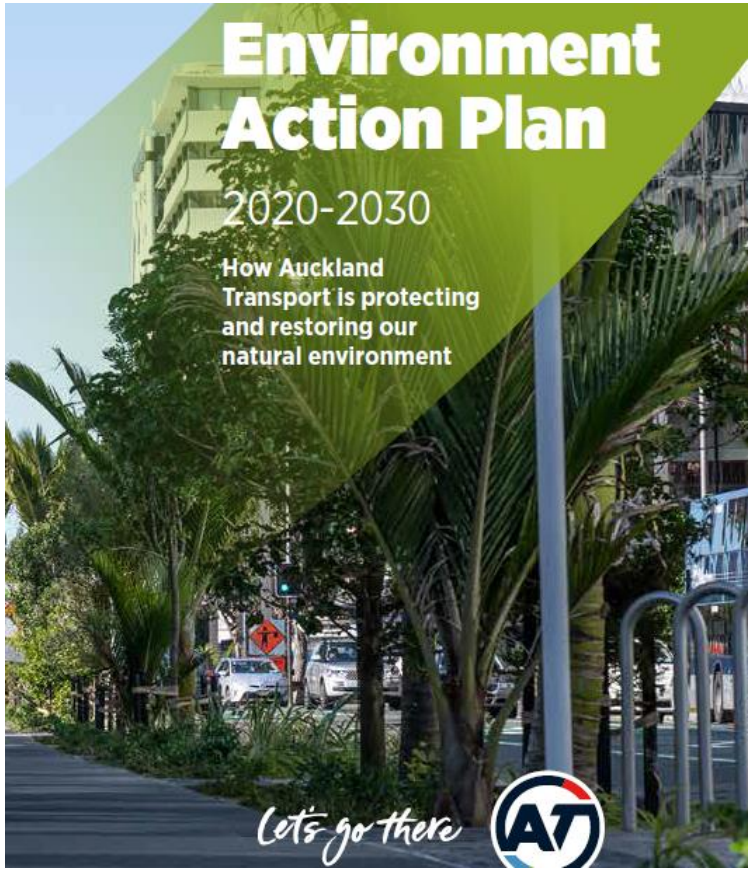
Managing our Discharges: Runoff from 30% of our busiest roads will be treated by 2030.

Greening our Network: Increase canopy cover along Auckland road corridors to an average of 12%, and increase pervious surfaces along corridors that connect areas of high ecological value by 10%

Water Conservation: All AT capital/maintenance projects >$5 million will establish non-potable water supplies for activities that do not need drinking-water quality water.

Waste Minimisation: Waste volumes sent to landfill is reduced by 50% (or 75% of waste is diverted).

Fish Passage and Biodiversity: Fish passage will be provided for 20% of the rural culverts located on permanent streams.



National Adaptation Plan 2022

National Adaptation Plan 2022

Goals

- Reduce vulnerability of assets
- Enhance adaptative capacity and consider climate change in decisions at all levels
- Strengthen resilience

Actions

- NAP to be reviewed and updated every 6 years.
- 100+ NAP actions sit under objectives with a 2-6 year time frame

Area	Code	Objective
Natural Environment	NE3	Support working with nature to build resilience
Infrastructure	INF1	Reduce the vulnerability of assets exposed to the impacts of climate change
	INF2	Ensure all new infrastructure is fit for a changing climate
	INF3	Use renewal programmes to improve adaptative capacity

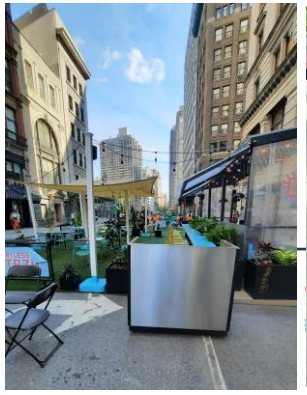
→ Hiikina te Wero
→ Adaptation Plans
→ Climate Adaptation Policy
→ Asset Management Plan

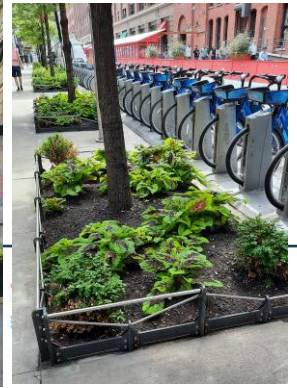
- Councils required to “have regard to” NAP from Nov 2022
- Waka Kotahi Adaptation plan by 2022 and integrate into National Land Transport Prog by 2024
- Adaptation Plans to use Dynamic Adaptative Policy Pathways approach (DAPP)

Making the connection….

Environment

Value our green networks, water quality and biodiversity: blue/green networks





Climate: National Adaptation Plan

Use nature-based solutions to adapt and provide resilience to climate change

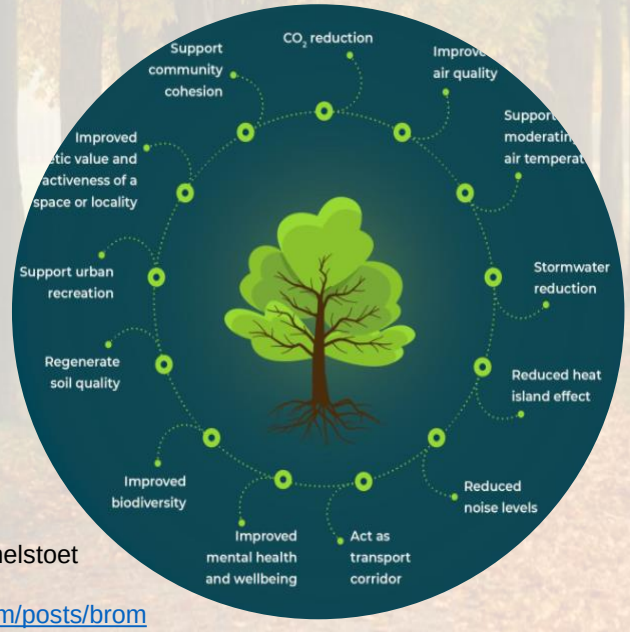
COP15 Biodiversity

The UN considers biodiversity our strongest natural defense against climate change. Land and ocean ecosystems currently absorb 60% of human-caused emissions, and they are the planet's only way of storing massive amounts of carbon dioxide.

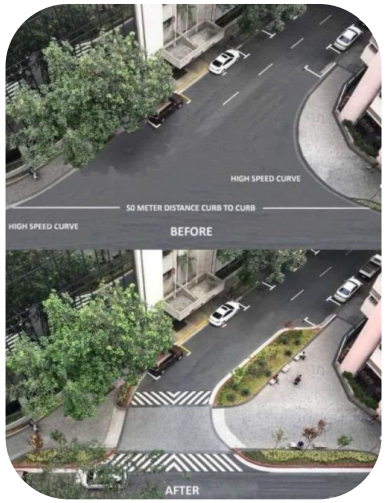
Greening our network

Trees and vegetation are no longer an amenity feature in the road. They are an integral part of roading infrastructure. Best practice is moving fast and NZ and Auckland have some catching up to do.

- AC/AT have mapped ecological corridors across the Auckland region to identify locations for tree planting
- AC/AT have canopy cover targets in our strategies and plans
- **UN BiodiverCities 2030** – increasing green infrastructure
- Auckland is a member of **C40 Cities** – all rapidly moving towards greener cities to manage the impact of climate change and improve air quality



Link to Marco te Brommelstoet #flying car movement
https://www.linkedin.com/posts/brommelstroet_flyingcarmovement-activity-6836571494840119296-fyy_



How can you help?

TREES THAT COUNT
TE RAHI O TĀNE

Donating: support local tree planting initiatives

Greening: use living walls and roofs

Offsetting: support other projects which improve biodiversity

Sourcing: use your company supply chain to drive biodiversity improvements

Transforming: support sectors to improve their products with your personal purchases

Innovating: use life-cycle assessments to shift business/products to benefit biodiversity

Tipping: shift to food sources which don't destroy biodiversity

CSRWire - 7 Nature Positive Business Strategies for Tackling the Biodiversity Crisis