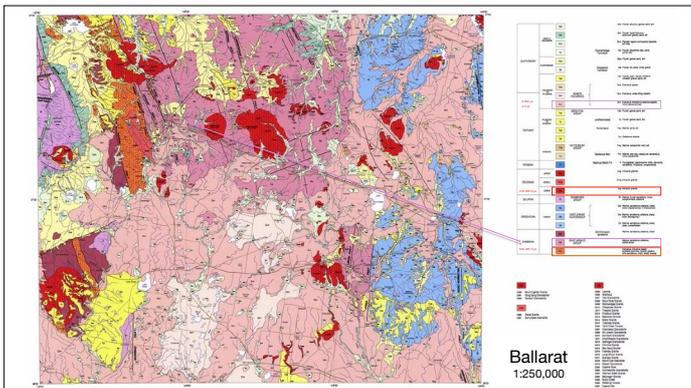
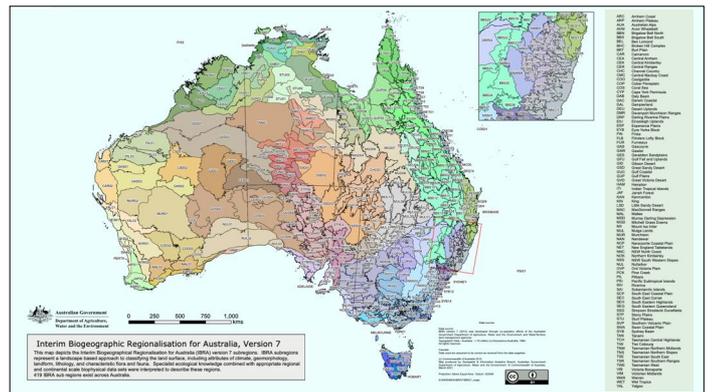
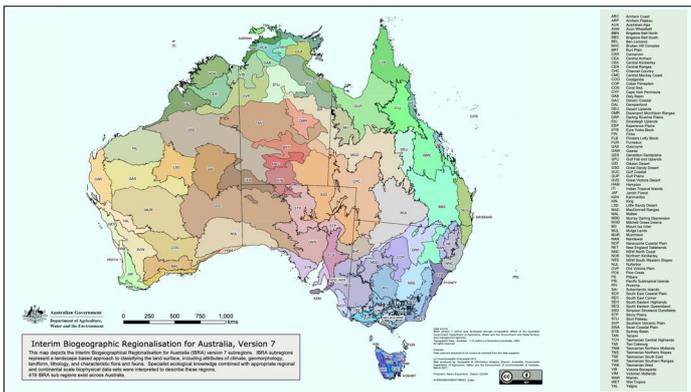
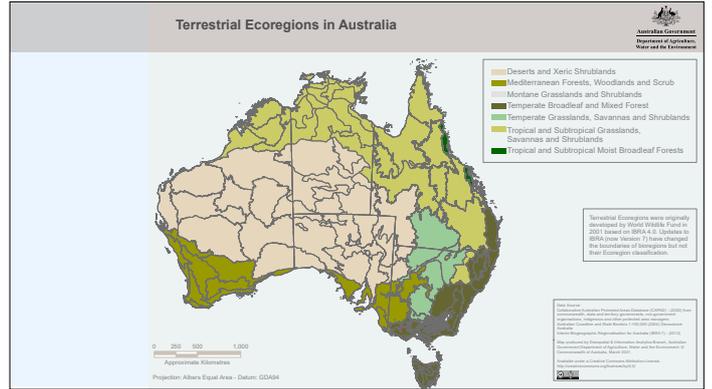


Ararat Landcare Group

Urban trees - making choices

Rob Gell AM

@robgell



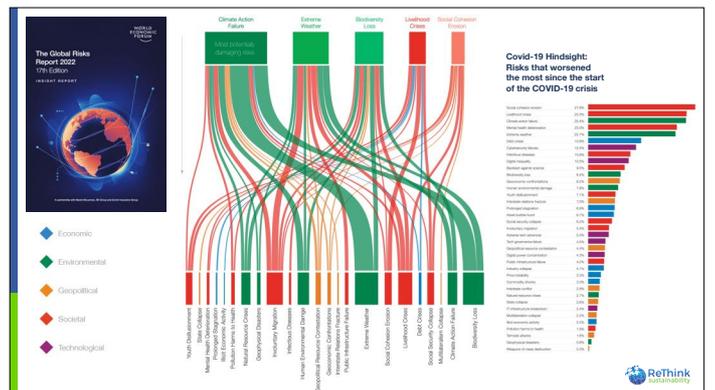
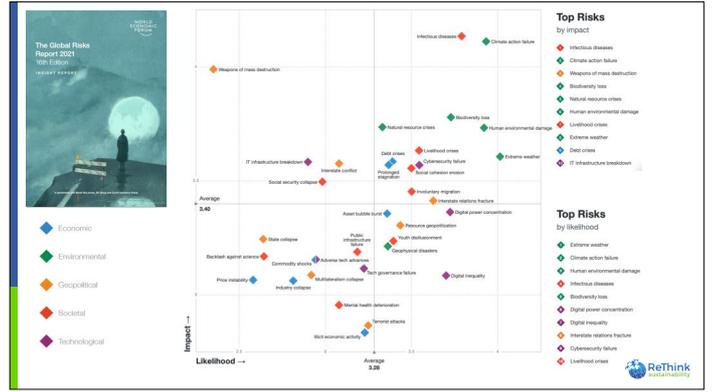
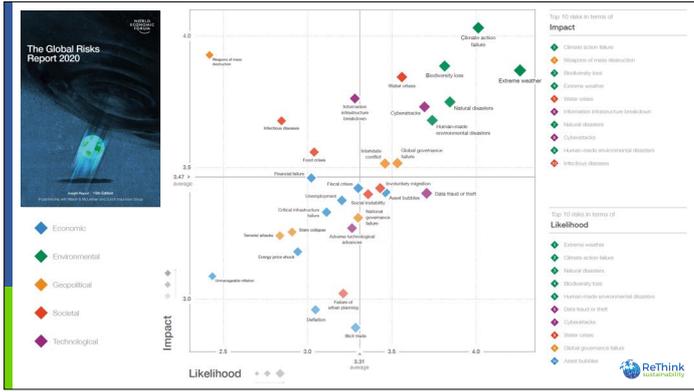
Climate

- The number of disasters, such as floods and heatwaves, driven by climate change (and improved reporting) have increased fivefold over the past 50 years, killing more than 2 million people and costing \$3.64 trillion in total losses.

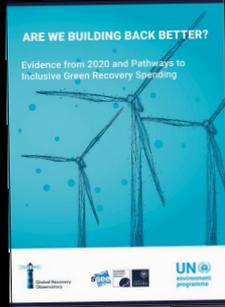
WMO ATLAS OF MORTALITY AND ECONOMIC LOSSES FROM WEATHER, CLIMATE AND WATER EXTREMES (1970-2019)

WORLD METEOROLOGICAL ORGANIZATION
September 2021

RoThink sustainability

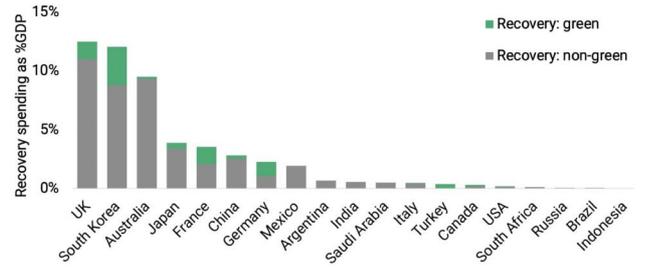


Are we building back better? The verdict on green recovery is out

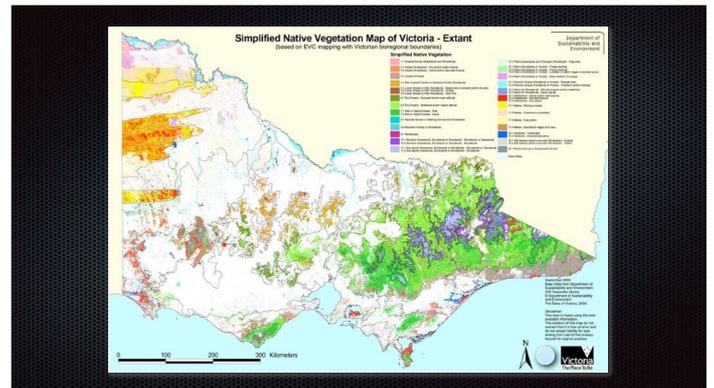
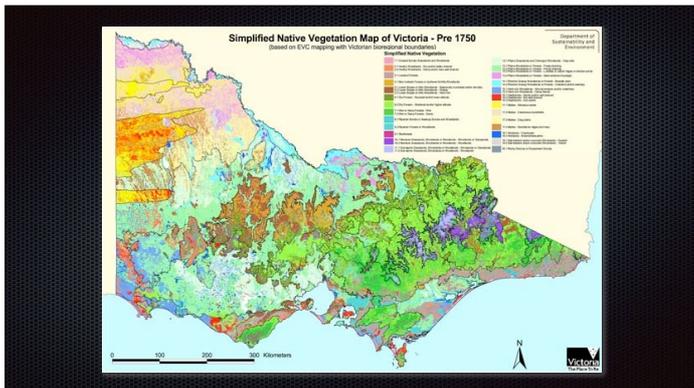
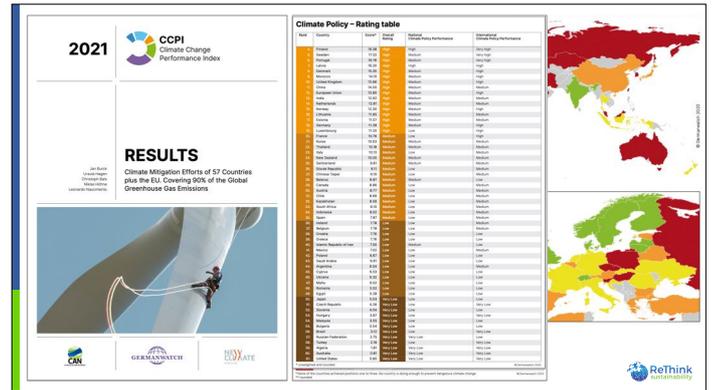
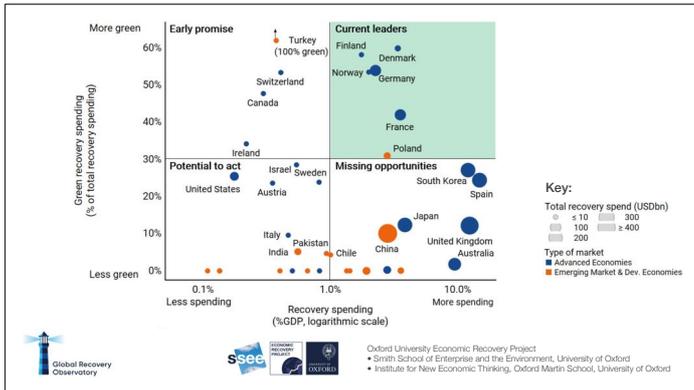


The world's 50 largest economies have pledged an estimated USD 14.6 trillion for post-pandemic recovery. While these stimuli initiatives will help to support hard-hit industries and protect jobs, less than one-fifth is being directed toward green initiatives.

→ tension between visible short-term progress, such as job creation, and longer-term projects like decarbonising the economy are causing missed green opportunities.



Global Recovery Observatory | ssee | Oxford University Economic Recovery Project | Smith School of Enterprise and the Environment, University of Oxford | Institute for New Economic Thinking, Oxford Martin School, University of Oxford



VVB Visualising Victoria's Biodiversity
www.vvb.org.au/vvb_map.php

Visualising Victoria's Biodiversity (VVB)

- a place to discover and share spatial information on Victoria's environmental values, conservation activities and research.

VVB is a community resource and welcomes your feedback, input and contribution. VVB brings together existing environmental datasets and information created and managed by government agencies, organisations, community groups and individuals.

We encourage anyone wishing to share spatial information on biodiversity values from anywhere in Victoria to contact us to explore options for visualising your data on VVB.

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Landscape stress of Australian Bioregions

- Victoria has the highest concentration of bioregions under **high stress**
- The cumulative environmental meaning of past actions.
- "... Victoria is the most intensively farmed state in the Commonwealth" (Victorian Yearbook c. 2005)

GLOBAL BIODIVERSITY CRISIS

GLOBAL FOREST WATCH

In 2010, Victoria had 6.04Mha of natural forest, extending over 28% of its land area. In 2020, it lost 624kha of natural forest, equivalent to 211Mt of CO₂e of emissions.

www.globalforestwatch.org

TREE COVER LOSS IN VICTORIA, AUSTRALIA

From 2001 to 2020, Victoria lost 1.57Mha of tree cover, equivalent to a 25% decrease in tree cover since 2000, and 554Mt of CO₂e emissions.

The methods behind this data have changed over time. Be cautious comparing old and new data, especially before after 2015. Read more here.

LOCATION OF TREE COVER LOSS IN VICTORIA, AUSTRALIA

In Victoria, the top 3 regions were responsible for 56% of all tree cover loss between 2001 and 2020. **East Gippsland** had the most tree cover loss at 557kha compared to an average of 19.6kha.

Region	Tree Cover Loss (kha)
East Gippsland	557
South West	278
North West	278
South East	278
West Gippsland	278
Other	278

Land cover change - impact on climate

Geophysical Research Letters, Vol 34, L22711 (2007)

Modeling the impact of historical land cover change on Australia's regional climate

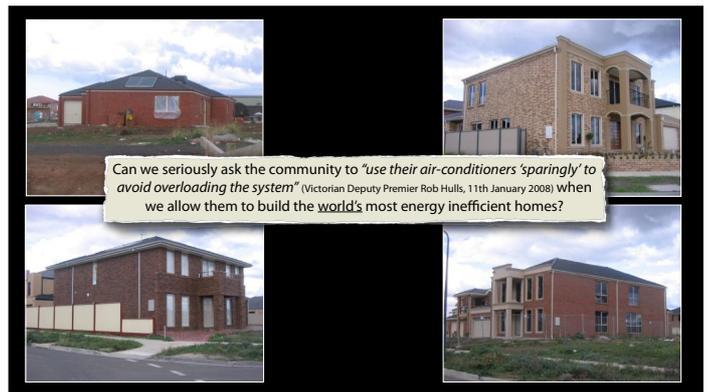
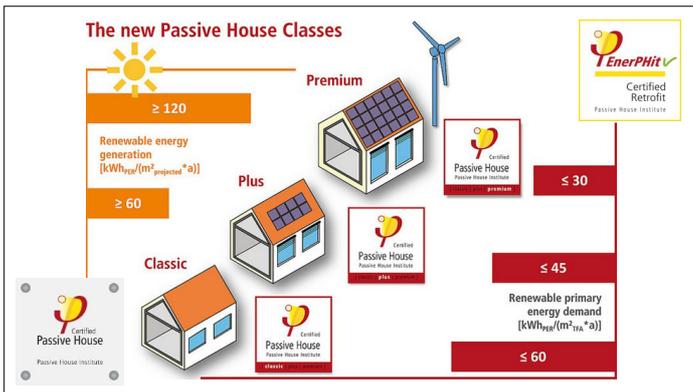
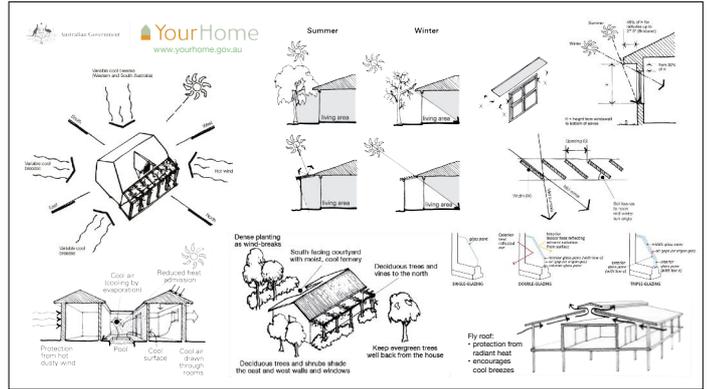
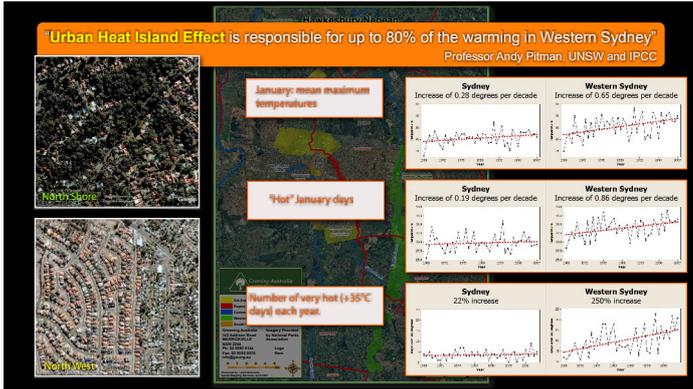
C. A. McInnes, J. S. Boyle, R. C. Doherty, P. J. Lawrence, H. A. McWilliam, S. L. Mullen, and S. P. O'Grady

- statistically significant **warming of the surface temperature**, especially for summer in:
 - southwest Australia (0.4-0.8°C)
- increased **summer rainfall** in eastern Australia
- increased **summer temperature** in eastern regions during the 2002-2003 and 2009-2010 drought events
- **LOG has potentially been an important contributing factor to the observed warming in the southern regions of Australia.**

Figure 1. Changes in woody vegetation since European settlement. (Barton, Marshall and Bunker, Bureau of Rural Sciences)

Urban Heat Island Effect - Western Sydney

Hawkesbury Nepean River Recovery Program



Lilydale News
 Member for Green, Environment and Climate Change
 Matthew Deacon

26th July 2022

New Trees Provide Shade For Locals In Melbourne's West

The streets of St Albans, Kings Park and Traralgon, and Altona Station Creek that are looking greener with newly planted trees are thanks to our community.

The Victorian Government is leading the way in planting trees to help cool our cities and streets. The Victorian Government's Green Streets program is planting trees along roads and in public spaces to help cool our cities and streets.

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Media Release
 Victorian Government
 26 July 2022

Digital Twin Victoria: Ararat

brings together 3D and 4D spatial data, artificial intelligence and sensor data in one user-friendly place, to visualise and model places and conditions virtually.

provides a 'bird's eye view' of paddocks using past and present satellite imagery to help identify trends or changes and inform ongoing land management.

enables government, industry and the community to collaborate through a shared network to benefit infrastructure development, agriculture, building and planning.

a key driver in developing smart cities where data is used to achieve better town planning and service provision outcomes.

help the council with planning, asset maintenance, tourism and emergency management.

land.vic.gov.au/maps-and-spatial/projects-and-programs/digital-twin/victoria