



From Risk to Resilience Summit

Wednesday 29 – Thursday 30 June 2022





From Risk to Resilience Summit



MC and Moderator

Dr Mark Crossweller AFSM

Founder and Director, Ethical Intelligence



From Risk to Resilience Summit



Acknowledgement of Country

We respectfully acknowledge the Gadigal of the Eora Nation as the Traditional Custodians of the land on which this event is being held.

We pay our respects to Elders past, present and emerging and celebrate the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters across Australia.



From Risk to Resilience Summit



Housekeeping

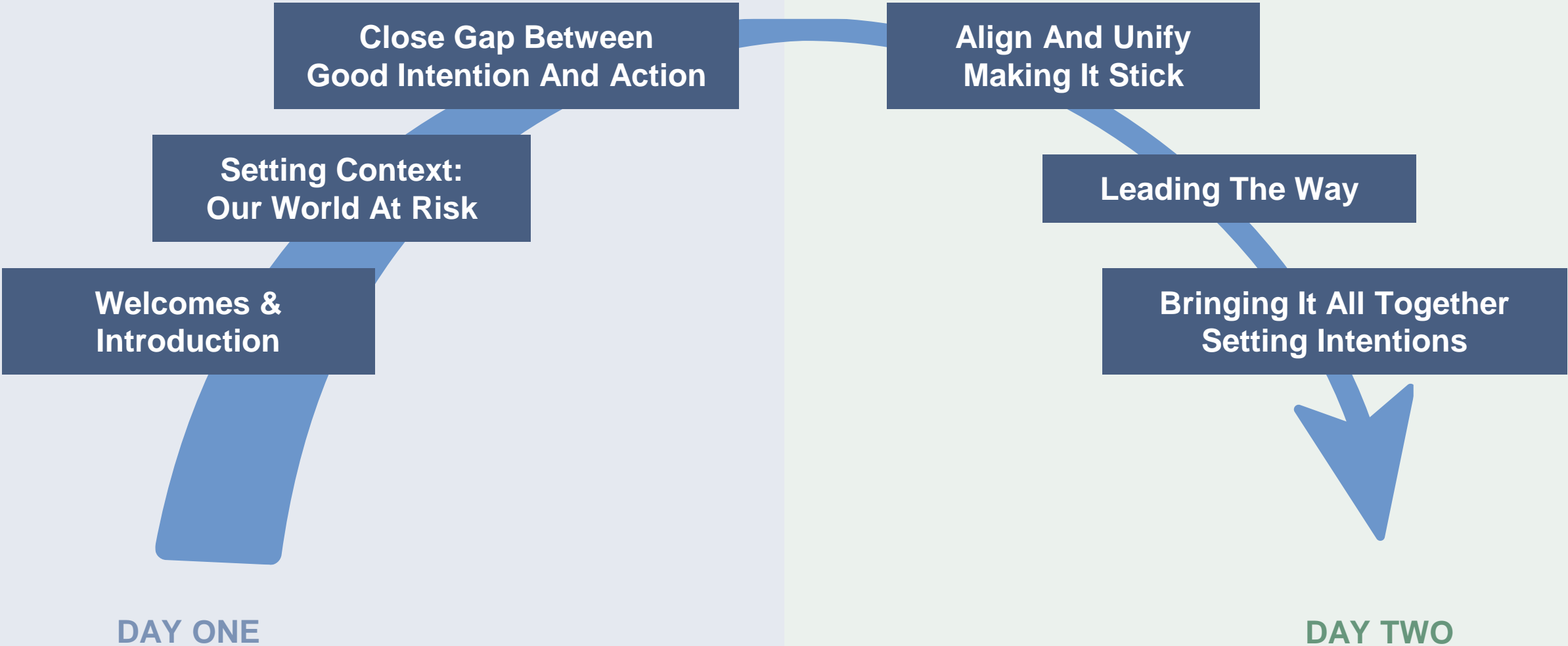
Join the conversation:

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#RiskToResilience

OR



Our Journey Through The From Risk to Resilience Summit





From Risk to Resilience Summit

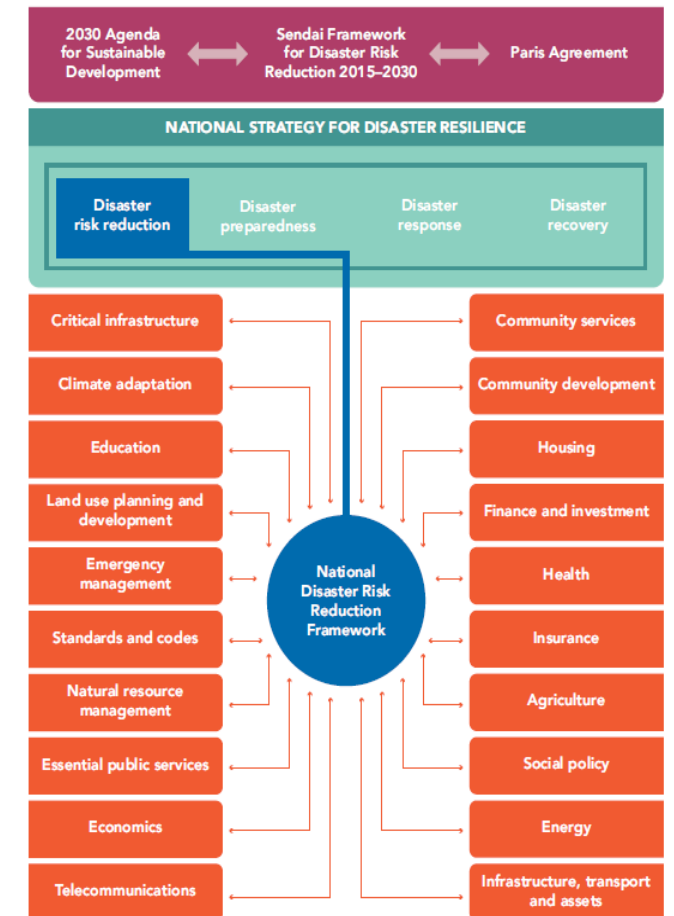
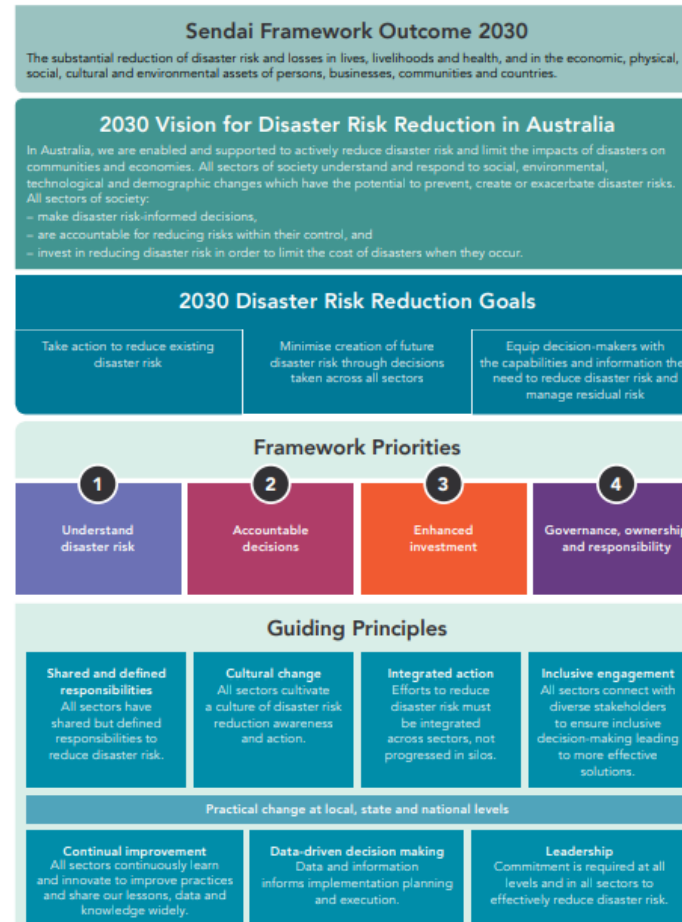
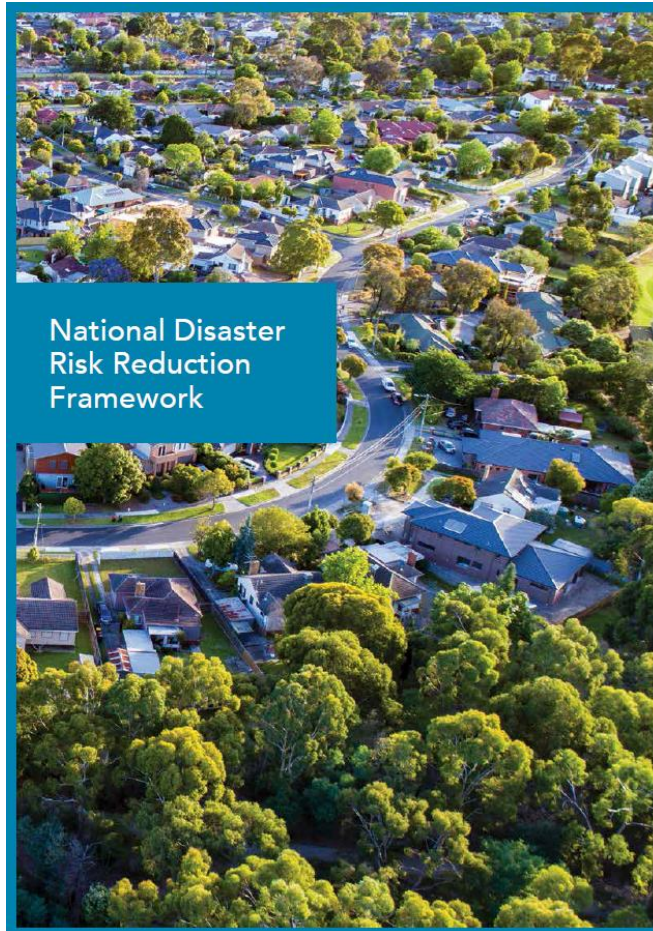


Welcome and Introduction

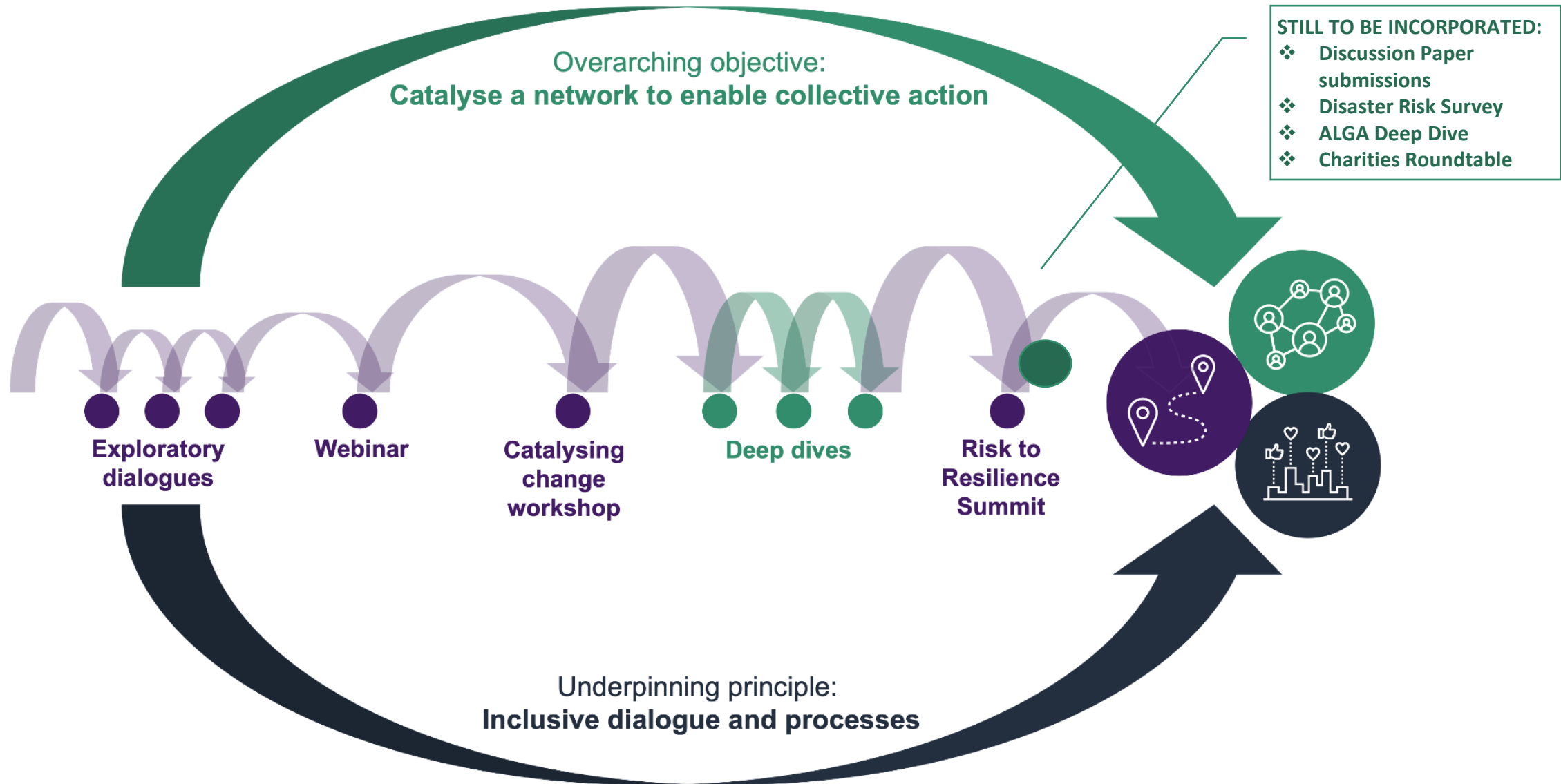
Hannah Wandel OAM

A/g Executive Manager, Policy and Programs,
National Recovery and Resilience Agency

National Disaster Risk Reduction Framework



Developing the Second National Action Plan





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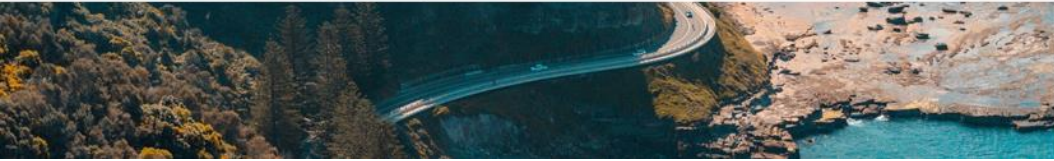
Welcome and Introduction

Katelyn Samson

A/g Executive Director,
Australian Institute for Disaster Resilience



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Australia's Call to Action to Reduce Systemic Disaster Risk

Senator the Hon Murray Watt

Minister for Agriculture, Fisheries and Forestry and
Minister for Emergency Management



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Developing the Second National Action Plan

Jacqui Cristiano

A/g Executive Director, Policy and Design,
National Recovery and Resilience Agency

Turning the Page

Reducing Systemic Climate and Disaster Risk for a Resilient and Prosperous Australia



Momentum is Building

The risk landscape is changing quickly and we need to break from business as usual.

- Natural hazards are more frequent and intense
- Demand is growing to address financial impacts of a changing climate
- People, livelihoods and assets are more exposed and vulnerable
- Essential services are increasingly hyper-connected
- Disaster impacts are long-term and complex
- Costs of disasters are growing
- Stability of natural, social and economic systems can no longer be taken for granted



We are Aspiring Towards

A systems and values-based mindset reduces climate and disaster risks.

- Risk-informed sustainable development
- Substantial reduction in loss and harm
- Successfully living with natural hazards and a changing climate
- Reduced intergenerational vulnerability
- Wellbeing, trust and confidence

Where we are now

Where we need to be

Emerging Actions

Address root cause of disaster risk, levers for system change

SPECIFIC ACTIONS FOR SYSTEMIC CHANGE

Embed 'Caring for Country' as a first principle.

Invest in place-based case studies & bottom-up processes that connect through different levels.

Build competencies, capability, capacity for youth (and more broadly) to act for their future.

Address mental health by through anticipatory learning, agency & action.

Formalise/mandate wider range of values in governance, decision-making and investment processes.

Develop ways to measure and assess non-financial values.

Invest in and incentivise innovation and action of all stakeholders to reduce liabilities and the creation or transfer of risks, including levers and legal accountability in land-use planning and decision-making and governance.

ENABLING / FOUNDATIONAL ACTIONS

Shift narratives away from 'risk' headline, to those that enable people to find pathways to a future where they flourish despite uncertainty and continual disruption.

Invest in people & process, not only products & 'things' e.g. co-design processes, networks and co-ordinating bodies to catalyse collaboration and change.

Develop, promote and reward different ways of leading across the system, (re)build trust in institutions.

EMBEDED MEL

Build outcomes frameworks, embed learning culture, and implement effective Monitoring, Evaluation and Learning to accelerate taking effective action.



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Morning Tea

10.30 am – 11 am

Next: Session One - Our world at risk

DADIRRI

(https://youtu.be/tow2tR_ezL8)

Dr Miriam-Rose Ungunmerr
Artist, activist, writer and public speaker





Session One

Our world at risk





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Drivers of disaster – the cost of inaction

Prof. Tom Kompas

Professor of Environmental Economics and Biosecurity

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Drivers of Disaster – The Cost of Inaction

Tom Kompas

Centre of Excellence for Biosecurity Risk Analysis (CEBRA)
Centre for Environmental and Economic Research (CEER)

University of Melbourne



Where are we now?

- Weather is more variable and extreme, devastating fires burn on every continent except Antarctica. (**Black Summer**).
- The ice is melting, sea-level rise is accelerating – threatening island nations, major cities, and coastal areas. (**VMaCC**)
- Water supplies are shrinking in many parts of the world and droughts are threatening farms, livelihoods and food security (**UN**)
- The ocean is warming and becoming more acidic, destroying coral reefs and harming fish populations. (**AFMA/CSIRO**)
- Record-high temperatures are making many parts of the planet unlivable; biosecurity events more common. (**Varroa, LSD, FMD, Japanese encephalitis**)

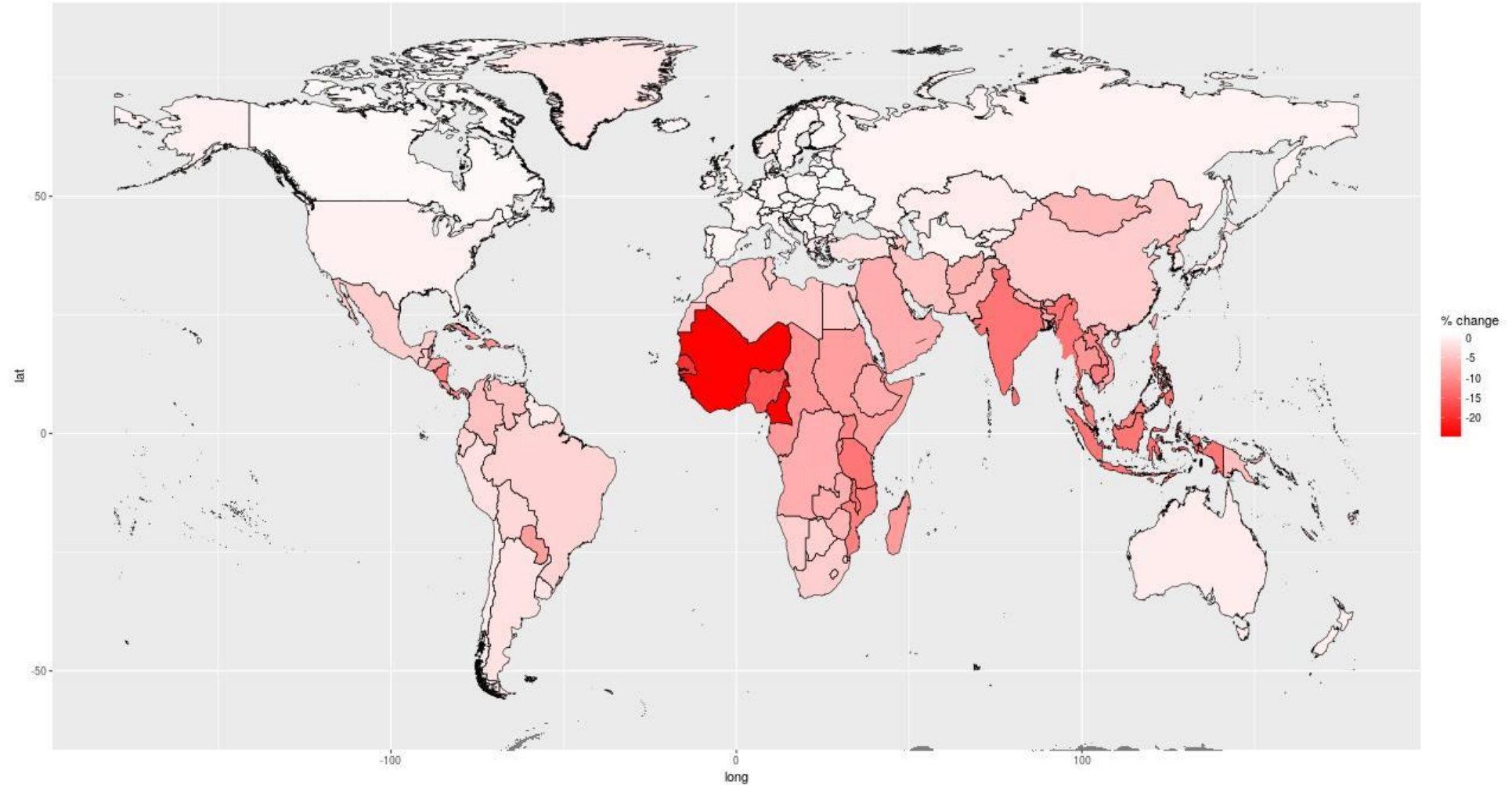
GTAP Model Settings

- Two trade and climate models (GTAP-INT & GTAP-IAM) 140 and 60 countries and up to 57+ commodity sectors to simulate the effects of temperature changes (i.e., global warming) on national income (GDP) **and** trade flows under different climate change scenarios.
- **Main** damage functions (national average effects):
 - Losses in agricultural productivity
 - Losses in labour productivity
 - Sea level rise – losses in arable land only
- Additional damages (post-GTAP model): GIS modelling on sea-level rise and storm surge, impacts on biodiversity and ecosystems, and bushfires/drought.
- Key message: Dimension matters!

Commodity Groups

57+ (with GTAP E/P): commodity groups (with trade and spatial dimension), including paddy rice, wheat, cereal grains, vegetables, fruits and nuts, bovine cattle, sugar cane, sugar beet, plant-based fibres, sheep, goats, horses, sugar cane, raw milk, wool, forestry, fishing, coal, oil, gas, meat products, vegetable oils and fats, dairy products, textiles, beverages and tobacco, wood products, paper products, chemical, rubber, leather products, plastics, metal products, electronic equipment, machinery, manufactures, air transport, motor vehicles, electricity, construction, business services, defence, public administration, dwellings, communication, financial services, construction, transport, recreational and other services, petroleum and coal products, wearing apparel, etc.

Global Economic Damages with 4C Warming

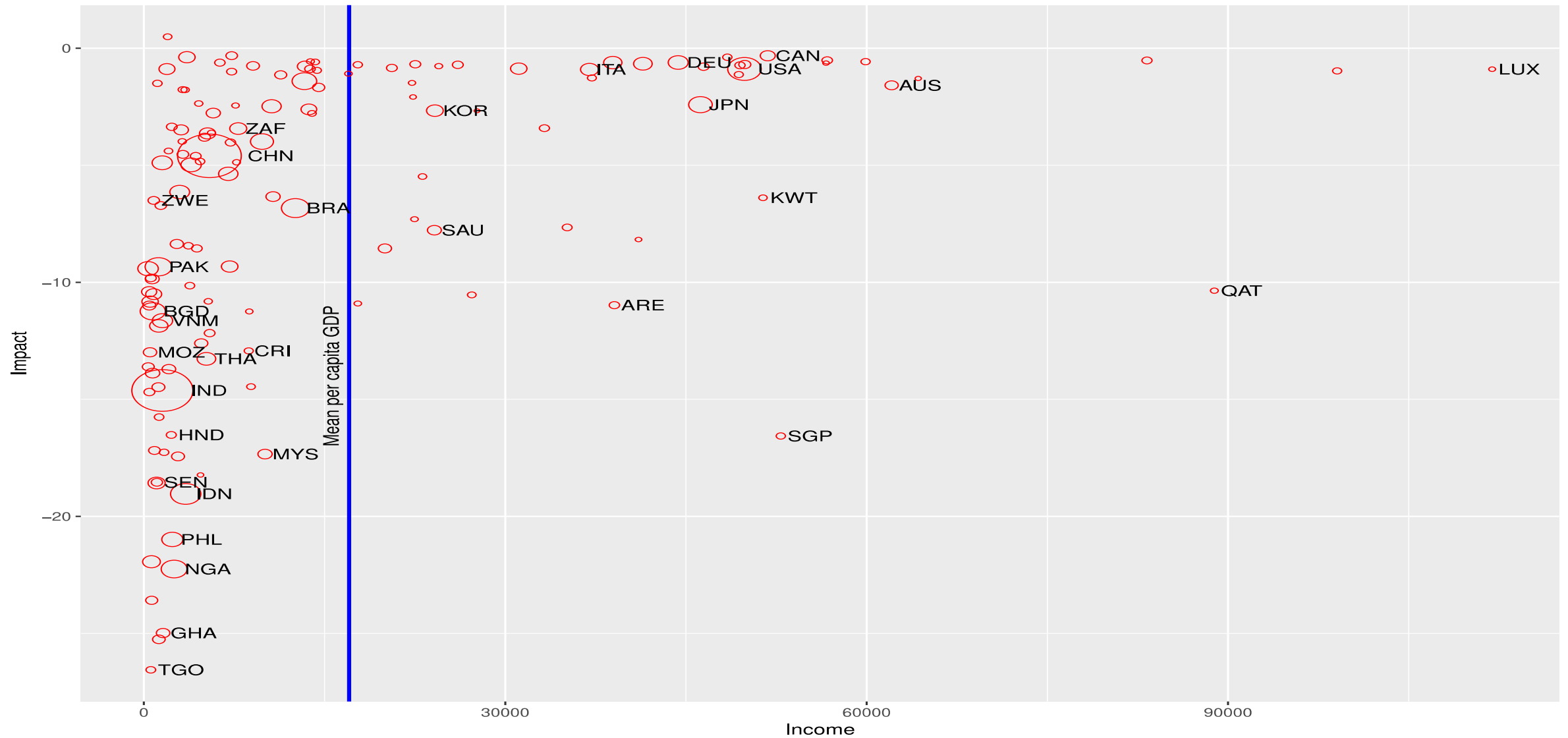


- Long run percentage losses in annual GDP globally: 1% to 28% depending on country; average loss in GDP *across* countries is 7%. Estimates (OECD) of falls in global GDP from COVID-19: 5-7%; for Australia: 4.1% (Treasury: 6%).

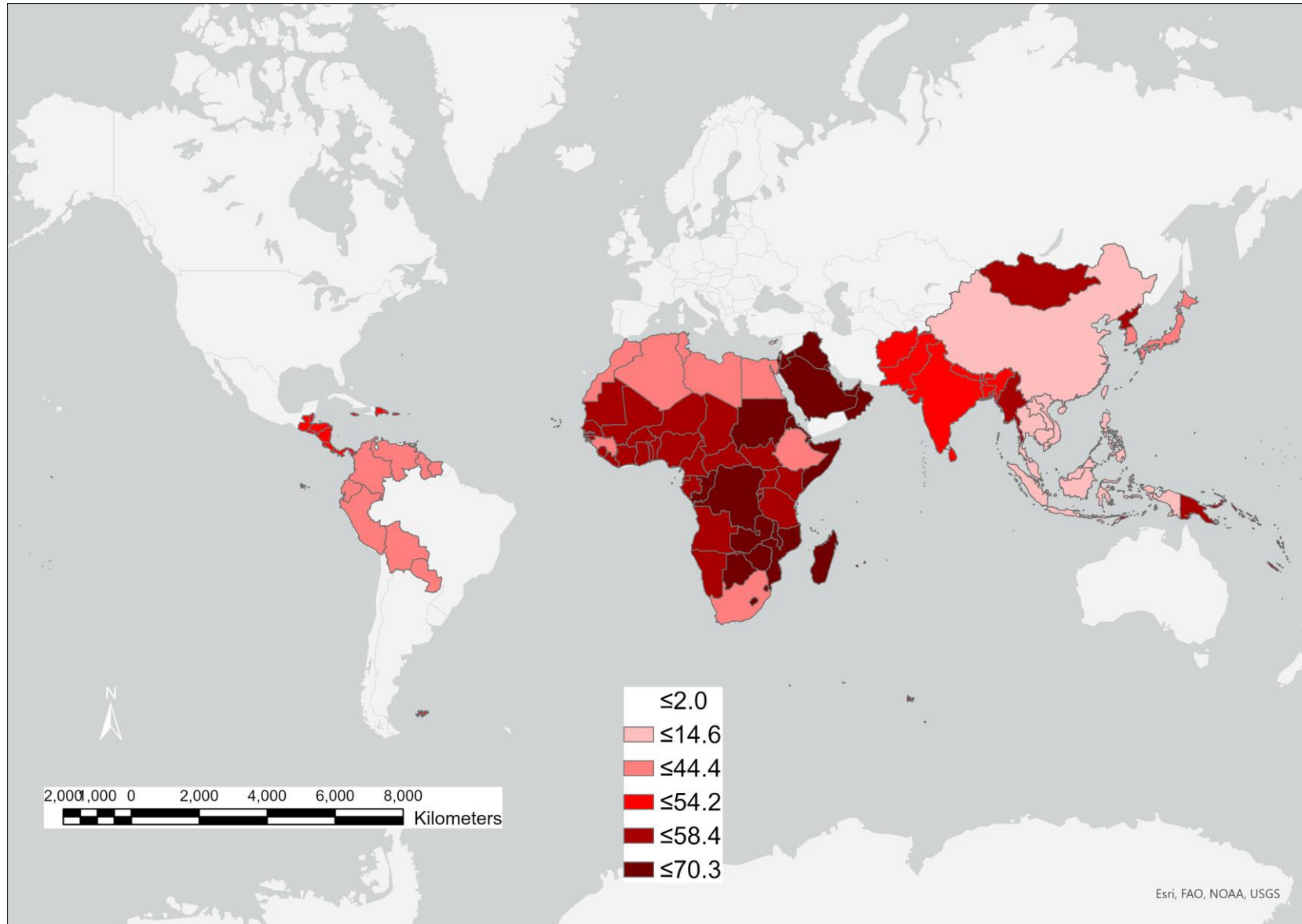
Global Economic Damages (summary)

- Even with a limited set of damage functions (losses in agricultural and labour productivity, limited human health effects and losses in arable land from sea-level rise), global cumulative damages are **\$610 trillion** USD (\$820 trillion AUD) from now to 2100.
- On average that amounts to \$7.6 trillion per year over the next 80 years.
- The projected (ADB) cost of COVID-19 is roughly \$7.3 trillion.

Distributional Effects of Climate Change at 4C, %Δ GDP



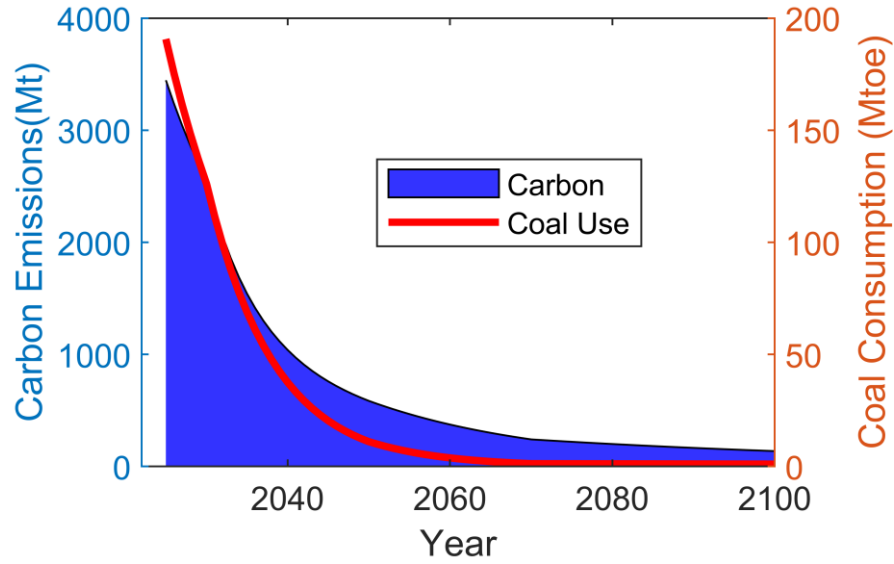
Water stress (IIASA) and food (in)security index in 2100 (% of pop impacted, using a food availability/calorie index)



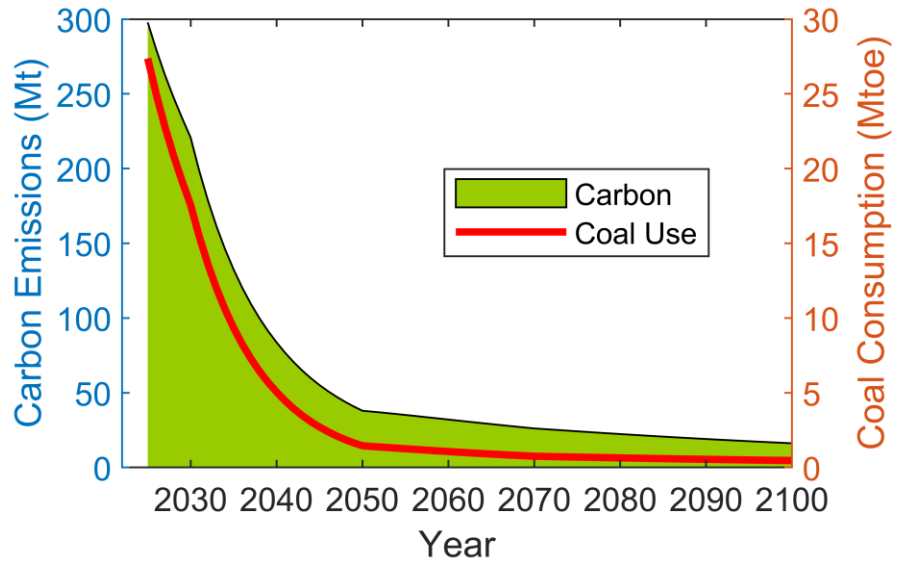
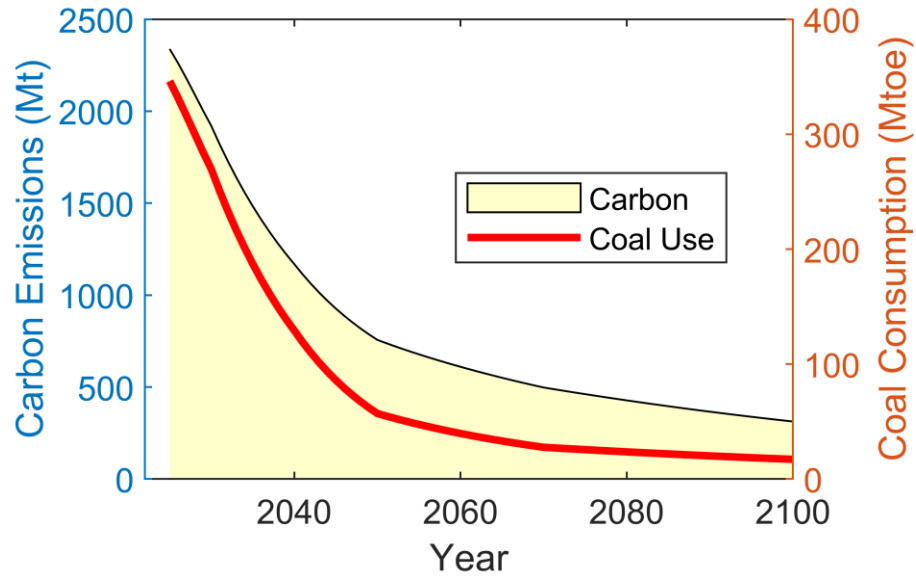
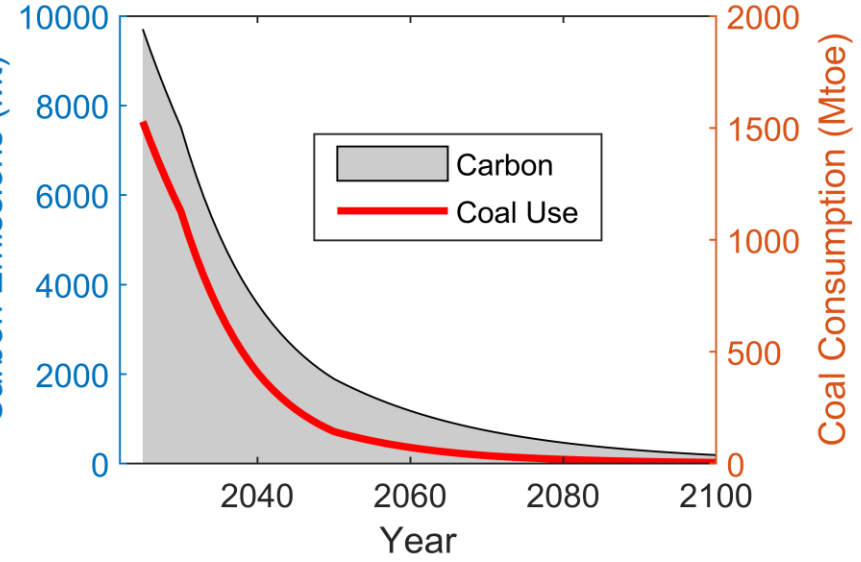
Economic Damages in Australia

- Using more extensive damage functions, cumulative damages to **2050 exceed \$1.89 trillion AUD**, or 4-5% of projected GDP – roughly COVID-19 equivalent on average GDP loss.
 - Losses in agricultural and labour productivity (\$261 billion); SLR/Floods (\$992 billion); bushfires (\$360 billion); biodiversity losses (\$277 billion).
- **After 2050 damages ramp-up considerably. In 2100, (RCP6.0): SLR/Storm damages alone in AUS are more than \$11 trillion or 8.4% of projected GDP.** Losses in labour and agricultural productivity range to 22% depending on state in 2100. GSP falls: QLD 17%; NSW 9%; WA 8.25%, VIC 6%

USA



China

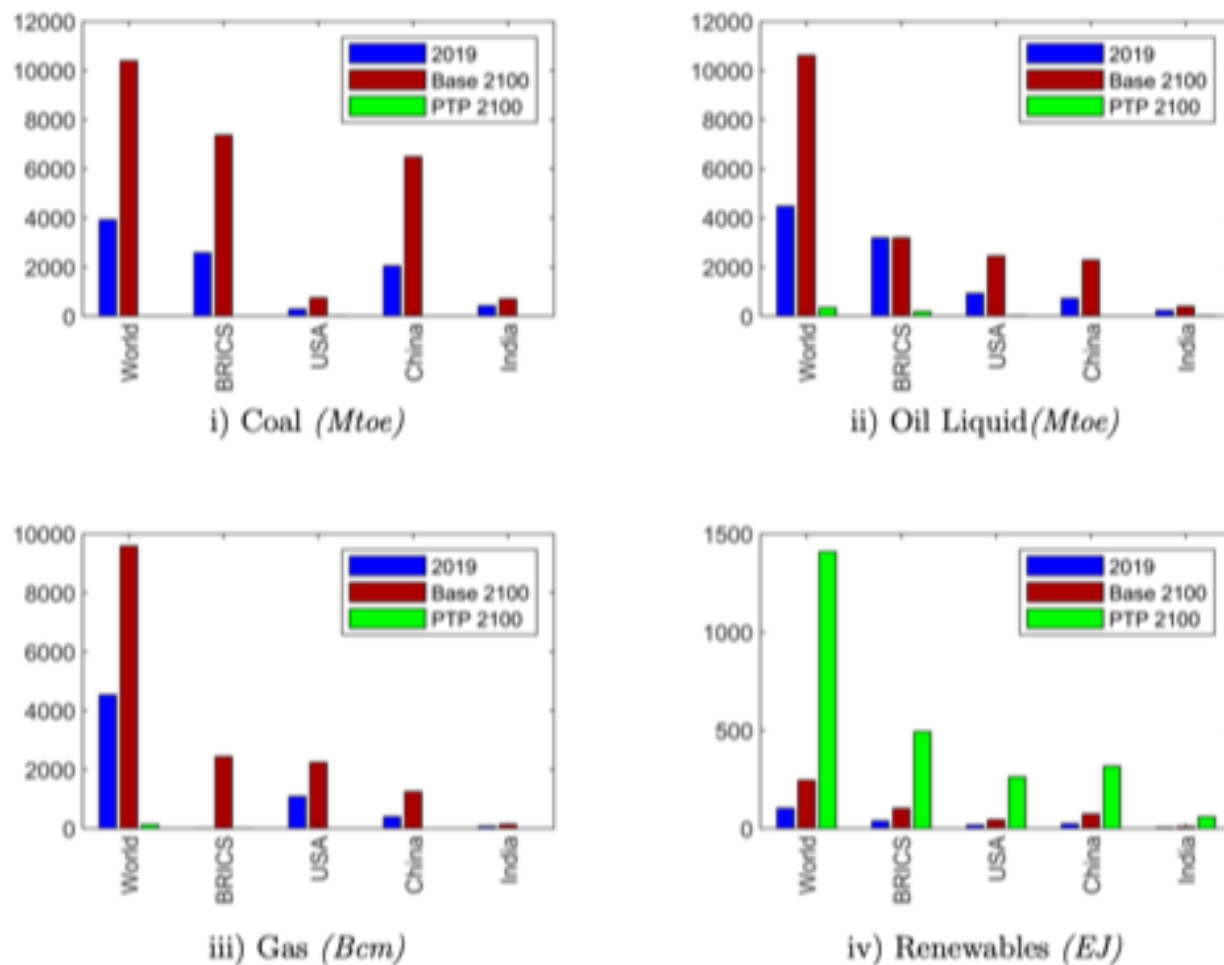


GTAP-DynR

India

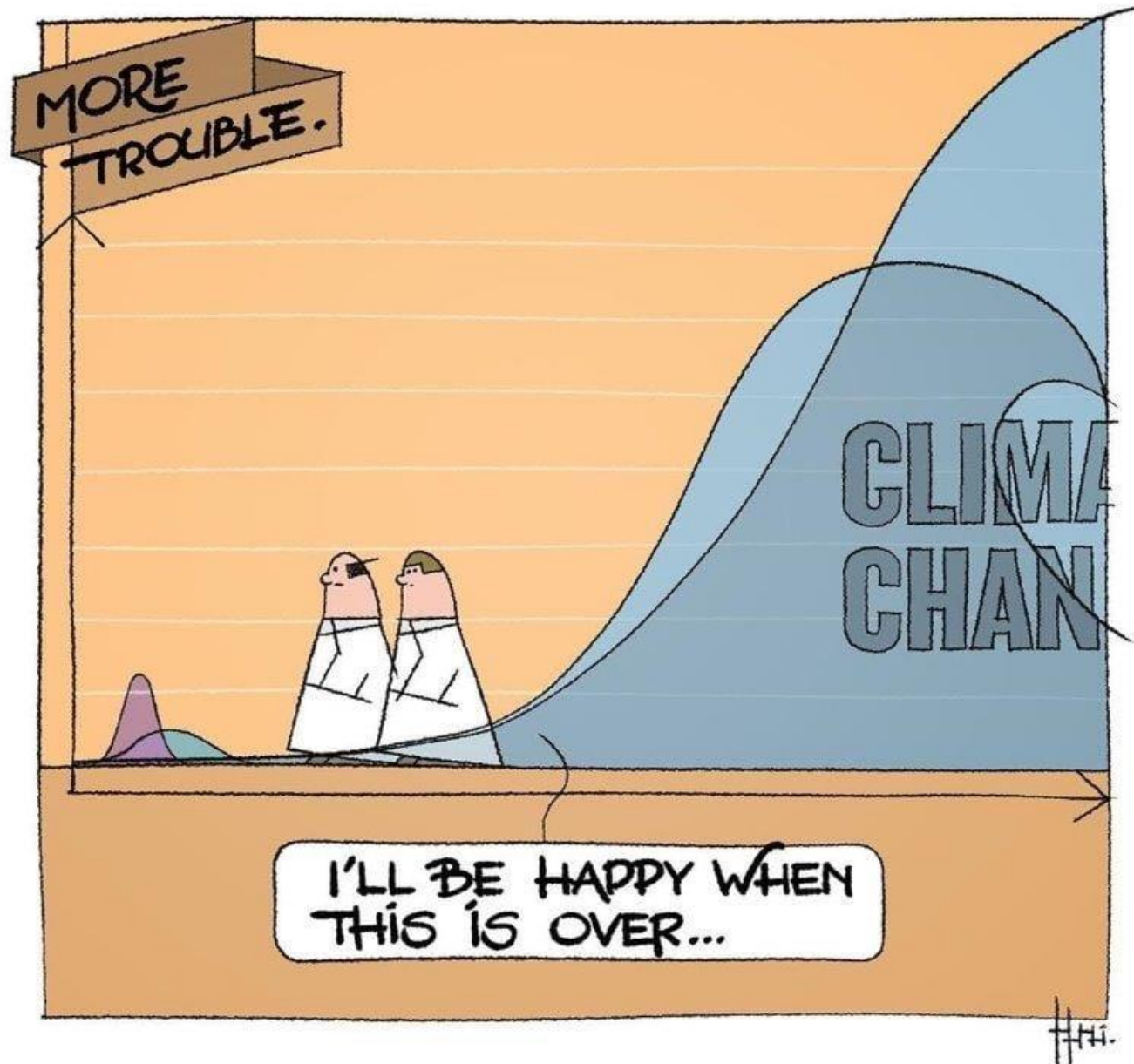
AUS

Figure 3: Fuel Consumption by Scenario in 2100



Note: Reference year is 2019 (BP, 2020; IEA, 2021c). Base 2100 is fuel consumption for the Base Case. PTP 2100 is the Paris (Agreement) Transition Path (for the vicinity of SSP1-RCP1.9). Mtoe: Million Tons of Oil Equivalent; Bcm: Billion Cubic Meters; EJ: Exajoule.

Thanks for listening!





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‘What can you do so that this information can change how decision-makers perceive risk?’



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#StopTheSpiral – the GAR2022 call to action

Marco Toscano-Rivalta

Chief of the Regional Economics and Biosecurity

www.slido.com

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The logo for the Global Assessment Report on Disaster Risk Reduction (GVR) features the letters 'GVR' in a bold, white, sans-serif font. The letter 'V' is stylized with a downward-pointing triangle inside it. The logo is centered at the top of a large teal circle.

Global Assessment Report
on Disaster Risk Reduction

Our World At Risk

Transforming Governance for
a Resilient Future



UNDRR

UN Office for Disaster Risk Reduction

Challenges



Human action is creating greater and more dangerous risk. As the world is becoming increasingly interconnected, risks cascade across geographies and sectors, pushing us towards existential limits.

Policy and personal action now can reverse this trend, but only if systemic risk is better understood and risk reduction action is accelerated. This requires:

- Building on existing risk reduction know-how.
- Transforming systems to make them more resilient.
- Developing enhanced approaches to address systemic risk.

By 2030, global disasters could increase by 40%. This amounts to 540 disasters every year, or **more than 1.5 per day**.

The number of **droughts** are forecast to double by 2030, and **extreme temperature events** set to triple.

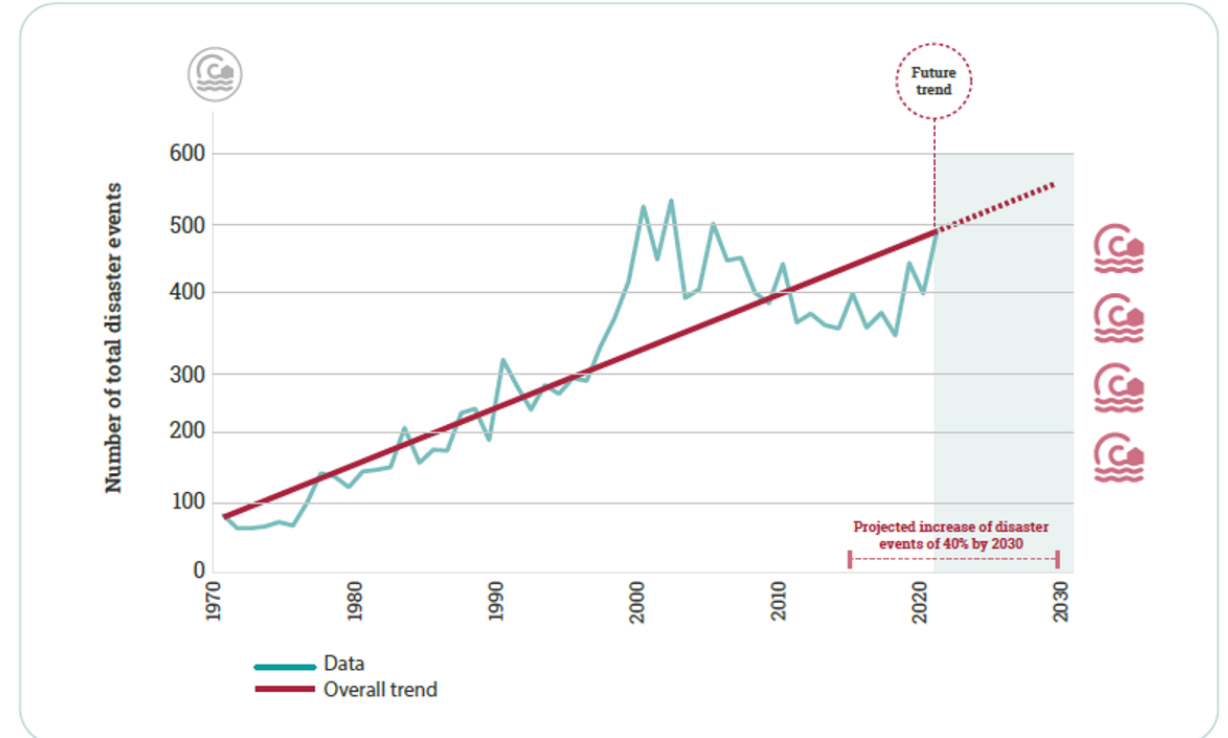
Every year, low- and middle-income countries lose **10 times more of their GDP** to disasters than high-income countries.

By 2020, **120 countries** had adopted disaster risk reduction strategies.

The world is not on track to reducing risk

If current trends continue, the number of disasters per year globally may increase from around 400 in 2015 to 560 per year by 2030 – a projected increase of 40% during the lifetime of the Sendai Framework

Figure S.1. Number of disaster events 1970–2020 and projected increase 2021–2030

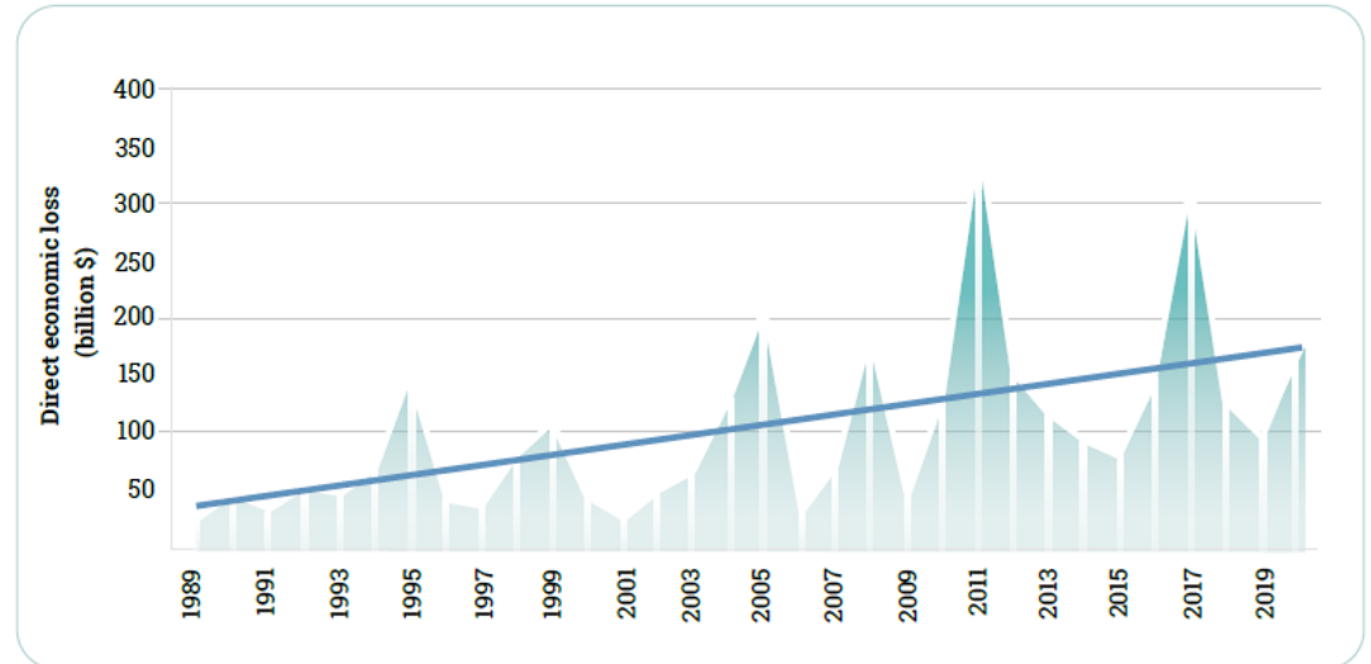


Source: United Nations Office for Disaster Risk Reduction (UNDRR) analysis based on the International Disaster Database (EM-DAT; CRED, 2021)

Human choices are driving vulnerability and exposure and increasing losses

The average annual direct economic loss from disasters has more than doubled over the past three decades, showing an increase of approximately 145% from an average of around \$70 billion in the 1990s to just over \$170 billion in the 2010s. However, the impacts of disasters stretch further than economic losses; they also fundamentally undermine social and ecological systems.

Figure S.4. Direct economic loss from disasters (billion \$), 1989–2020



Source: UNDRR analysis based on EM-DAT (CRED, 2021)

Measure what we value



Balance sheets ignore key variables, particularly undervaluing climate change risk, costs to ecosystems and the positive social benefits of risk reduction. The real costs of extensive risk are especially undervalued, and this gap is widening as major climate change impacts such as sea-level rise gather pace.

Key actions:

- **Rework financial systems** to account for the real costs of risk particularly long-term risks, and rework investment and insurance systems to incentivize risk reduction.
- **Adapt national fiscal planning and risk financing** to consider risk and uncertainty.

Design systems to factor in how human minds make decisions about risk




Policymakers and providers of disaster risk reduction products and services to households and communities continue to undervalue how risk perceptions, including cognitive biases, influence decision-making.

Key actions:

- **Recognize the role of people's perceptions** of risks and biases to close the gap between intention and action in reducing risk.
- **Recognize the value of risk analytics** as a tool but not a panacea.

Reconfigure governance and financial systems to work across silos and design in consultation with affected people



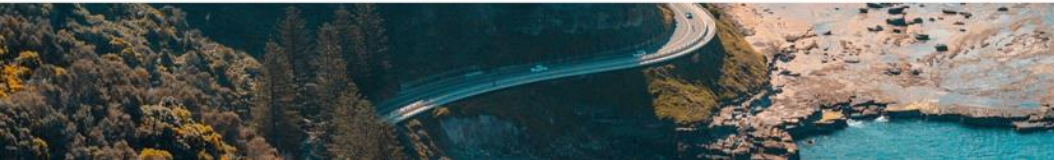
Governance and financial systems are not yet embracing transdisciplinary approaches and tend to take top-down approaches.

Key actions:

- Embrace a new “risk language” that cuts across multiple disciplines.
- Step up participation, transparency and citizen dialogue in risk decision-making to accelerate learning and necessary adjustments.
- Enhance multi-scale risk management



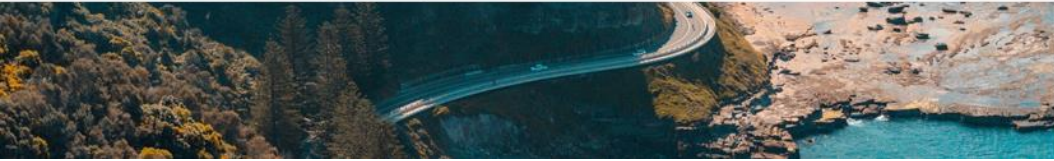
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‘How would you get systemic risk reduction to be at the core of climate change action?’



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Panel provocation and discussion

Brendan Moon

CEO, Queensland Reconstruction Authority

Ramana James

Executive General Manager Safer Communities, IAG

Prof. Lisa Gibbs

Director, Child and Community Wellbeing Unit, Melbourne School of Population
and Global Health, University of Melbourne

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Lunch

12.30 pm – 1.30 pm

Next: Graphic Recording – Dayna Hayman



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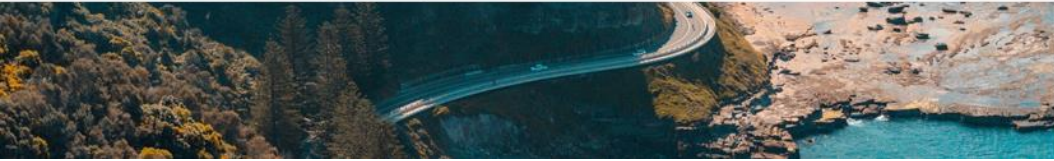
Graphic Recording

Dayna Hayman

Freelance Graphic Recording



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Group Dialogue Facilitators

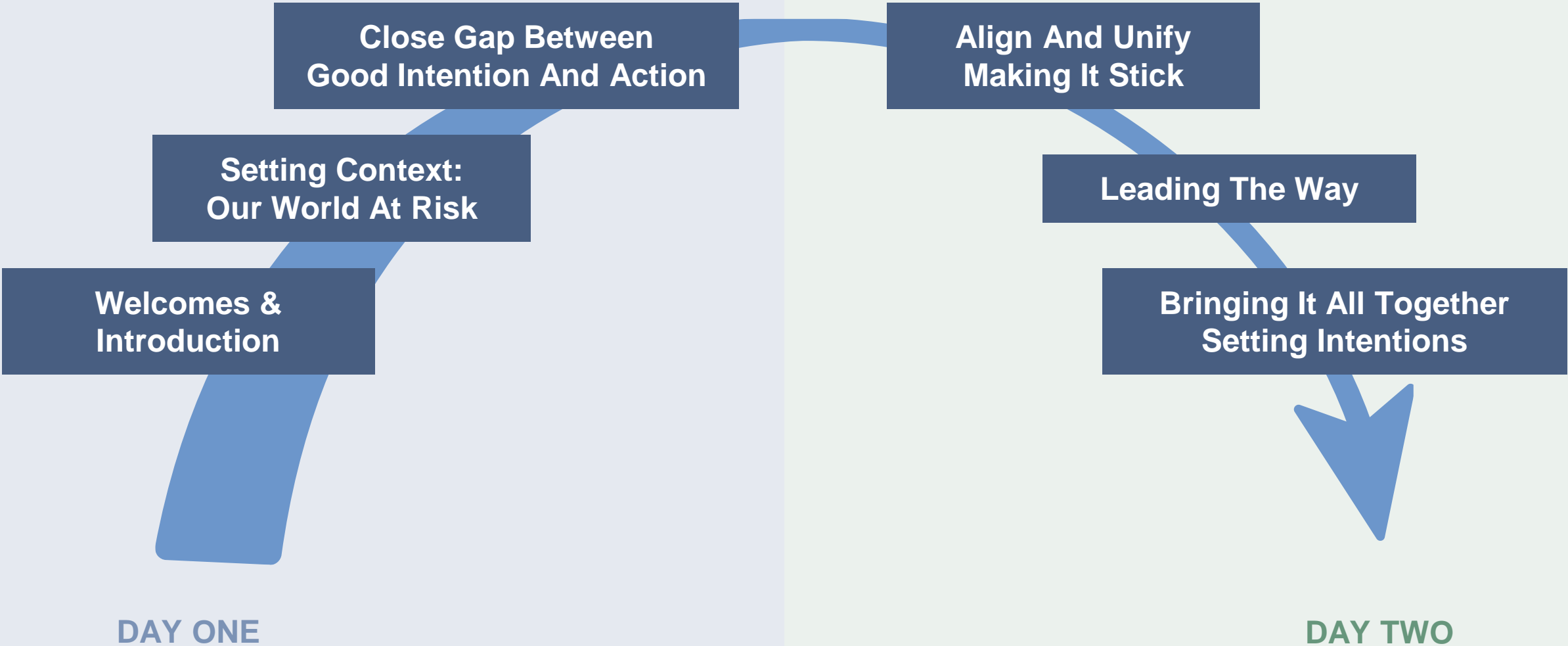
Dr. Deborah O'Connell

Principal Research Scientist, CSIRO

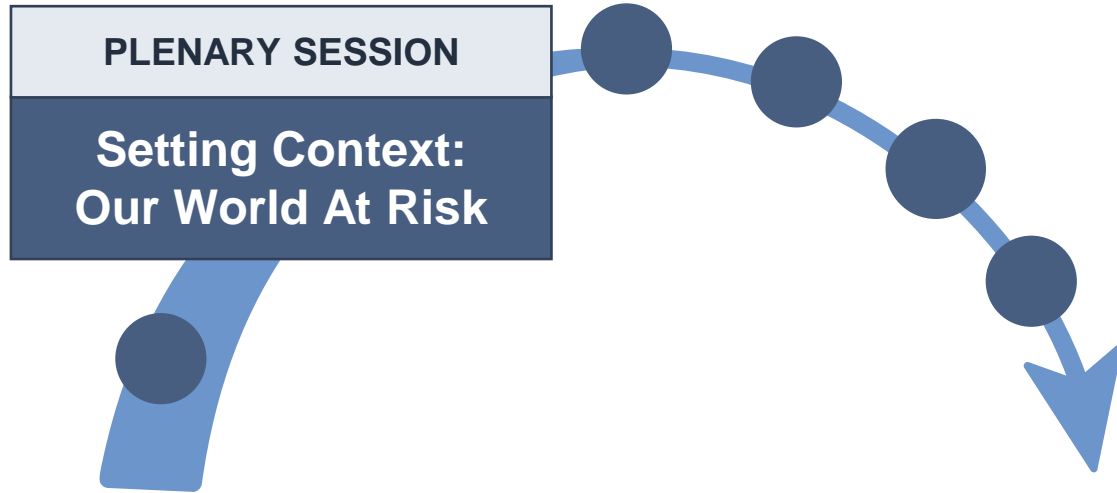
Sarah Patterson

CEO, Sarah Patterson Consulting

Our Journey Through The From Risk to Resilience Summit



Where We Are Now:



The emerging action we have discussed:

Addressing root causes of disasters, levers for system change.

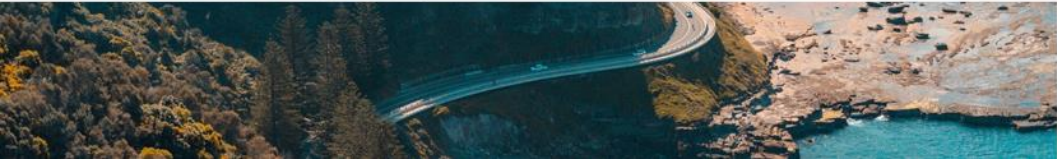
The emerging actions we will now discuss:

Shift narratives away from 'risk' headline to enable pathways to flourish despite uncertainty and disruption.

Embed Caring for Country.



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Yarning Circles

Carol Vale

Murawin



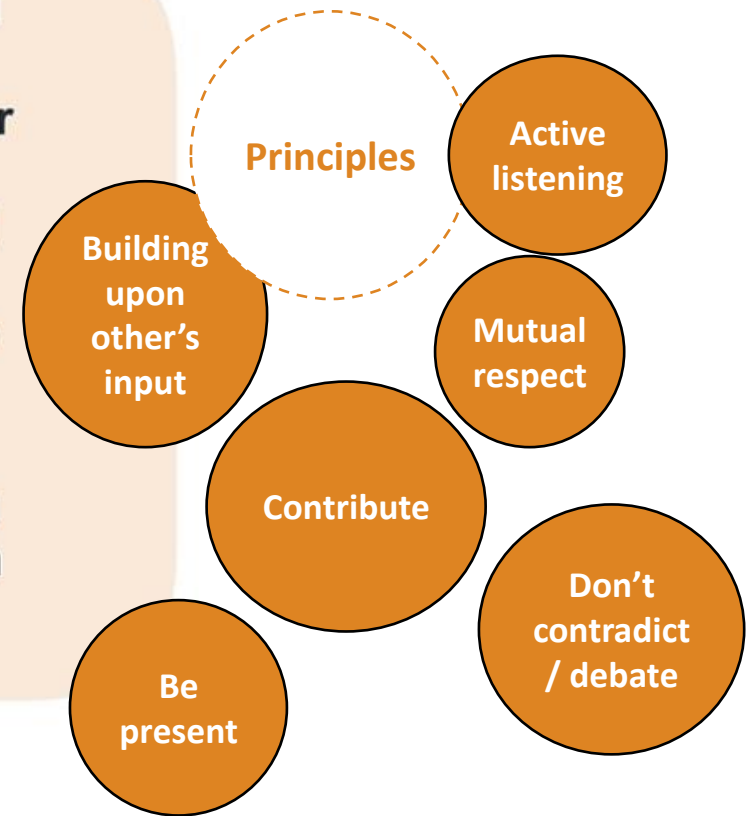
GET UP!
STAND UP!
SHOW UP!

3-10 JULY 2022

“Yarning is more than just a story or conversation in Aboriginal culture – it is a structured cultural activity that is recognised even in research circles as a valid and rigorous methodology for knowledge production, inquiry and transmission. It is a ritual that incorporates elements such as story, humour, gesture and mimicry for consensus-building, meaning-making and innovation. It references places and relationships and is highly contextualised in the local worldviews of those yarning.

It has protocols of active listening, mutual respect and building on what others have said rather than openly contradicting them or debating ideas.”

**Sand Talk: How Indigenous Thinking Can Save the World
Dr Tyson Yunkaporta**



Individually reflect on, the Indigenous Science topic card and your individual symbol card in the context of caring for Country.

What are the challenges and opportunities for disaster prevention and recovery?

Write down your individual insight.

Discuss insights as a table.

Agree on the highest priority.

Draw and write this insight on the A0 paper on your table.

Write an action statement using the symbol cards that will enable caring for Country to be embedded into the National Action Plan.



Session Two

Closing the gap between good intentions and action





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The future we choose

Jacki Johnson

Former Co-Chair, Australian Sustainable Finance Initiative

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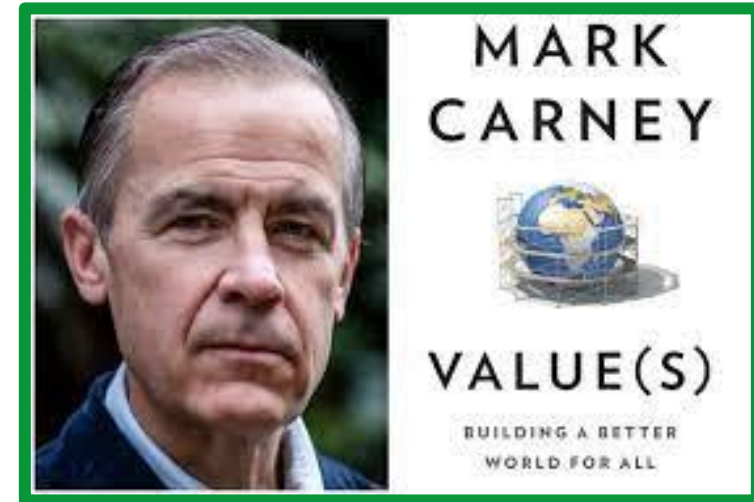
The Future We Choose

Jacki Johnson

Leadership : Role of Purpose

*“Markets are **social** constructs, whose effectiveness is determined partly by the rules of the state and partly by the **values** of society. If left unattended they will corrode those values.*

*We must concentrate on rebuilding **social capital** to make markets work. To do so, individuals and their firms must rediscover their sense of **solidarity** and **responsibility for the system**” (Carney 2021, p. 11)*



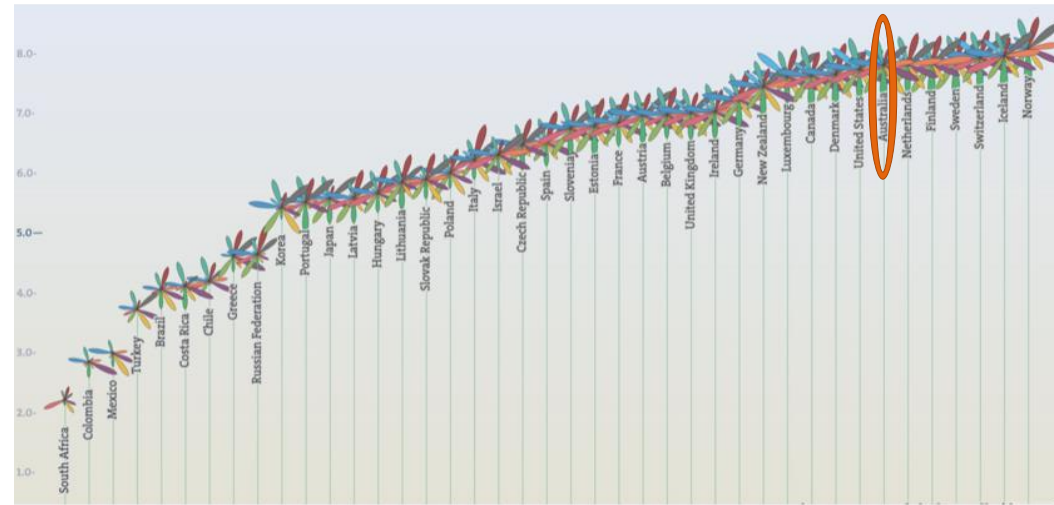
Should our Purpose in the Risk Resilience field focus on building social capital?

How Do We Measure Success

Real GDP growth projections
G20 economies, % change, year-on-year

	2021	2022	2023
World	+ 5.6%	+ 4.5%	+ 3.2%
Australia	+ 3.8%	+ 4.1%	+ 3.0%
Canada	+ 4.8%	+ 3.9%	+ 2.8%
Euro area	+ 5.2%	+ 4.3%	+ 2.5%
France	+ 6.8%	+ 4.2%	+ 2.1%
Germany	+ 2.9%	+ 4.1%	+ 2.4%
Italy	+ 6.3%	+ 4.6%	+ 2.6%
Spain	+ 4.5%	+ 5.5%	+ 3.8%
Japan	+ 1.8%	+ 3.4%	+ 1.1%
Korea	+ 4.0%	+ 3.0%	+ 2.7%
United Kingdom	+ 6.9%	+ 4.7%	+ 2.1%
United States	+ 5.6%	+ 3.7%	+ 2.4%

Source: OECD Economic Outlook, Volume 2021 Issue 2



GDP - our economic progress

OECD - Better Life Index

World Values Survey - Our Societal Values

United Nations Sustainable Development Goals

OVERALL PERFORMANCE

COUNTRY RANKING

AUSTRALIA

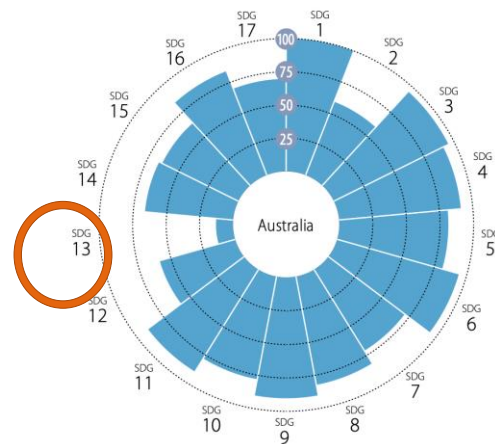
38 / 163

COUNTRY SCORE



REGIONAL AVERAGE: 77.2

AVERAGE PERFORMANCE BY SDG



SDG DASHBOARDS AND TRENDS



■ Major challenges
 ■ Significant challenges
 ■ Challenges remain
 ■ SDG achieved
 ■ Information unavailable
↘ Decreasing
 → Stagnating
 ↗ Moderately improving
 ↕ On track or maintaining SDG achievement
 ● Information unavailable

Note: The full title of each SDG is available here: <https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals>

Commitments and Collaboration

Federal Government



Ambitious Commitments to Net Zero and Decrease by 43% Emissions by 2030

State Government

All Committed to Net Zero and have set targets

Local Government

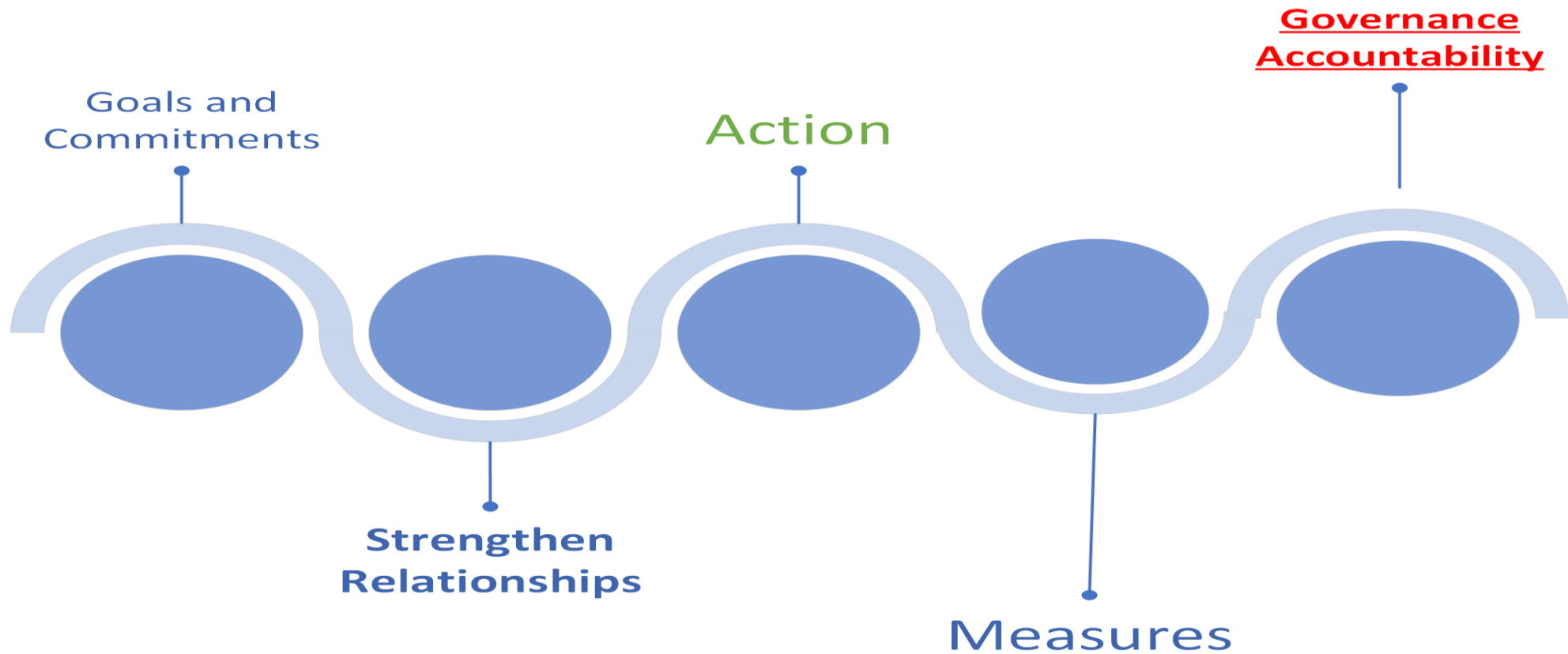
Resilient cities Initiatives
Greater Sydney strong example of collaboration, data, target setting across 33 councils



Australian Businesses

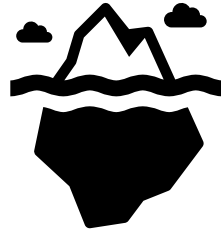


Transformational Change





A Mindset Shift



A Wicked Problem?

OR



A Grand Challenge?

Thank You

Jacki Johnson

Focusing.moments@bigpond.com



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‘What are you doing to evolve your organisation’s risk culture and governance as a powerful enabling force for change?’



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Urban Resilience – tackling the tough challenges

Michael Berkowitz

Founding Principal, Resilient Cities Catalyst

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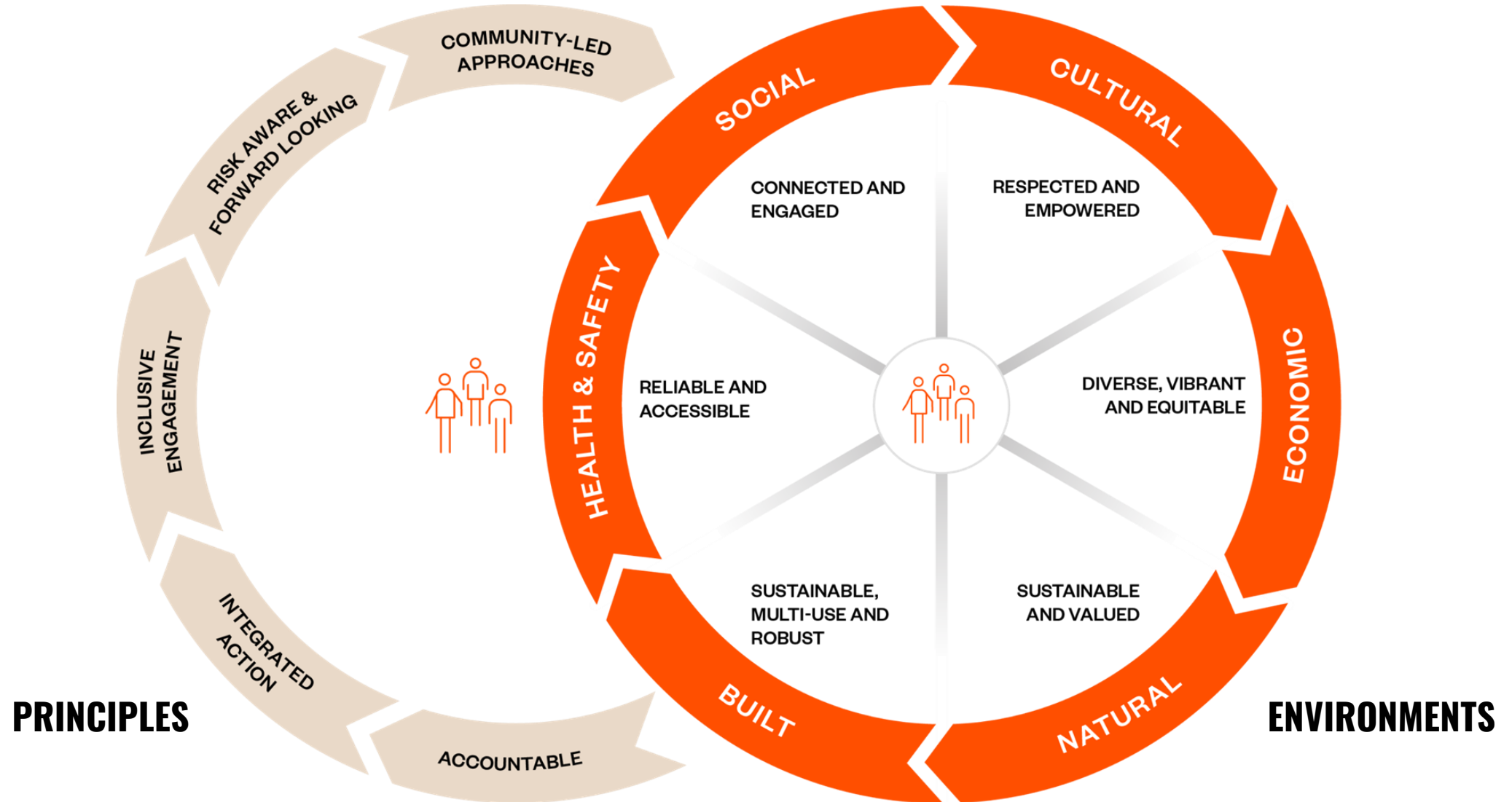


The Time is Now: Three ways we can work to build resilience now

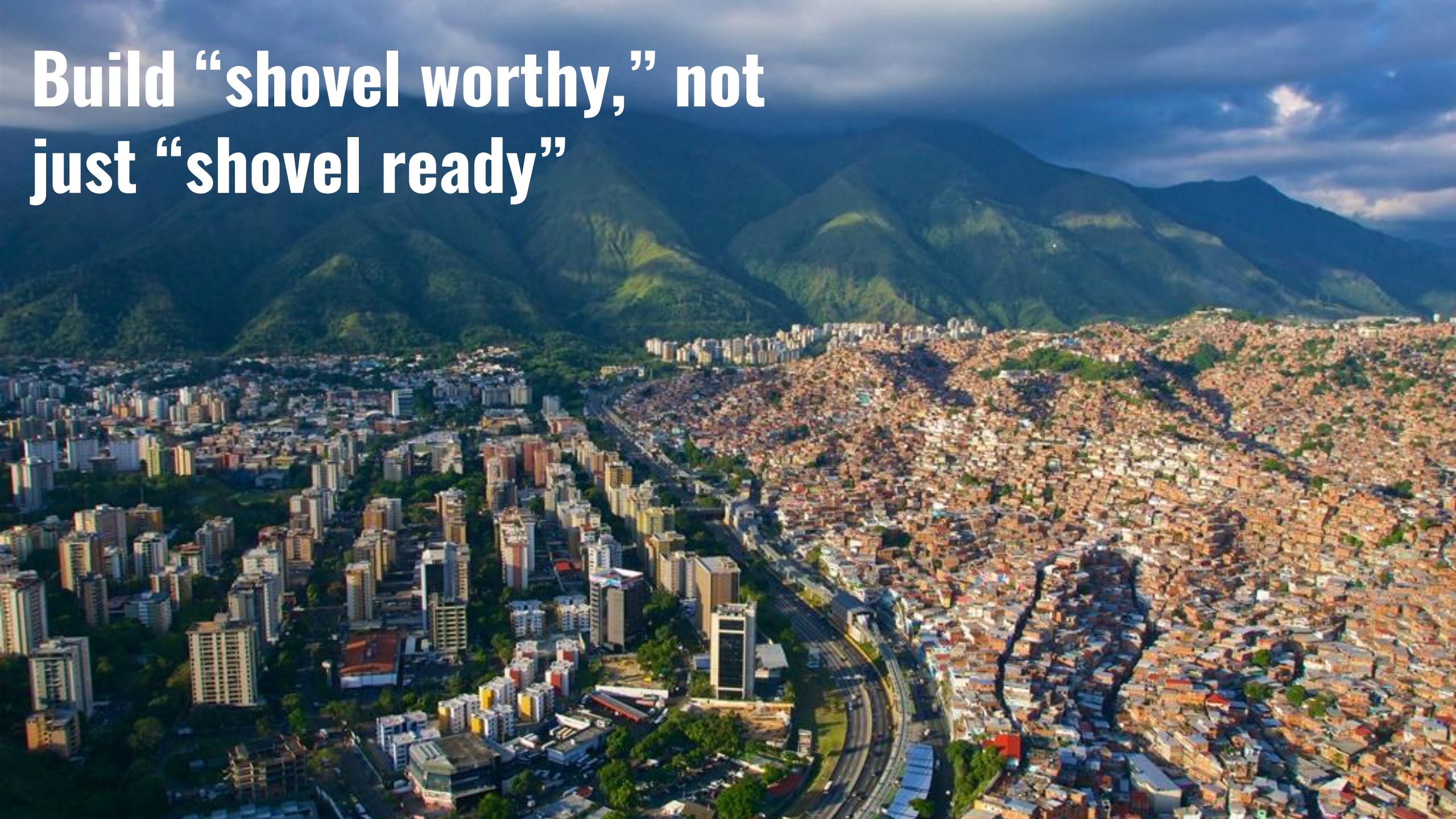
Michael Berkowitz @berkmic



Recognize “the how” is as important as “the what”

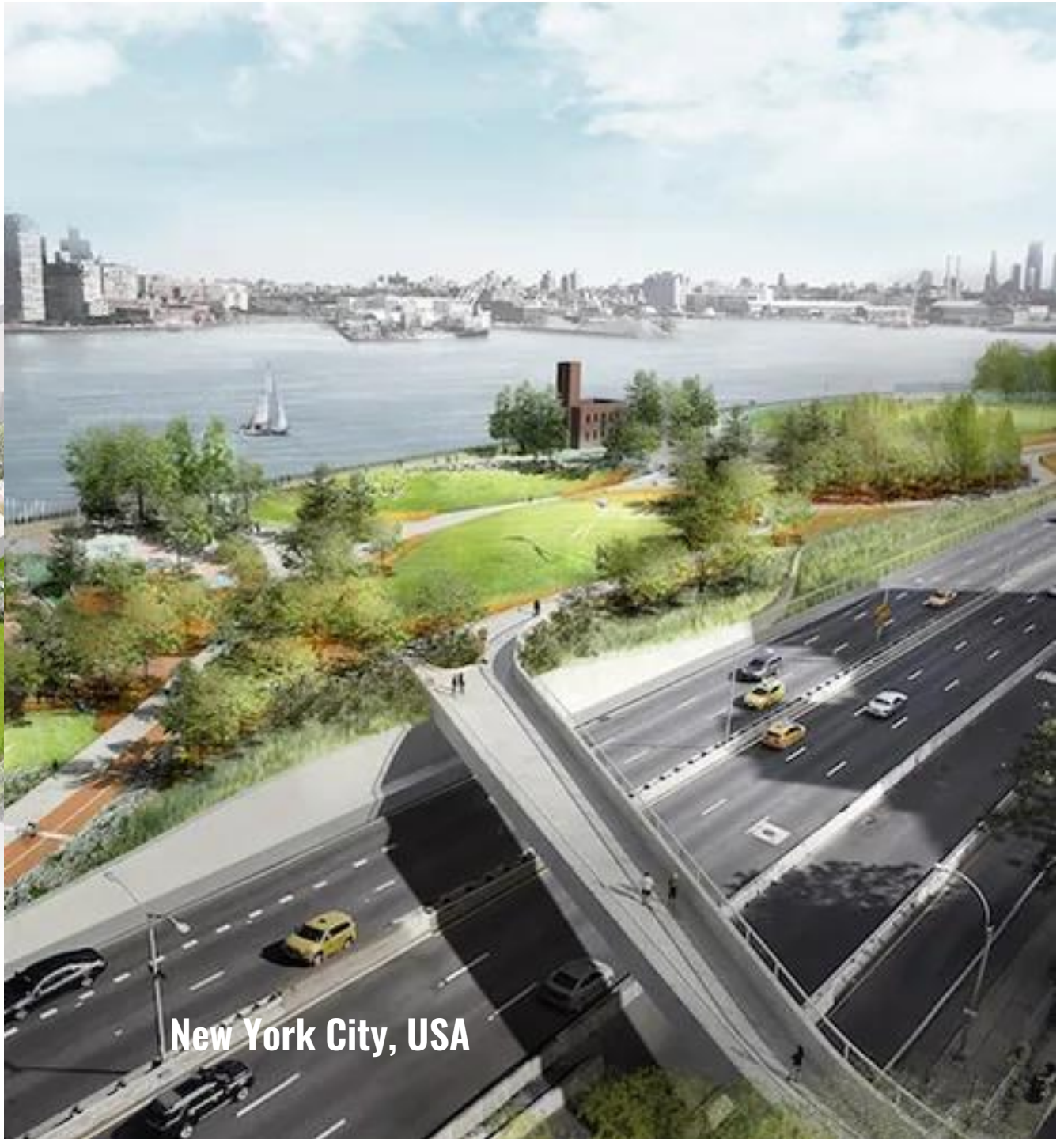


**Build “shovel worthy,” not
just “shovel ready”**





Hoboken, USA



New York City, USA

Tackle our toughest challenges together



Thank you!





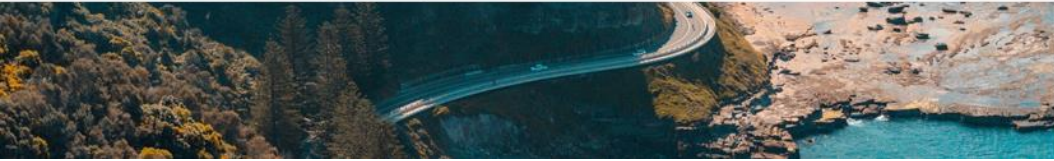
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‘What would it take for the systemic risks society faces to be seen together in your organisation and actions interconnected?’



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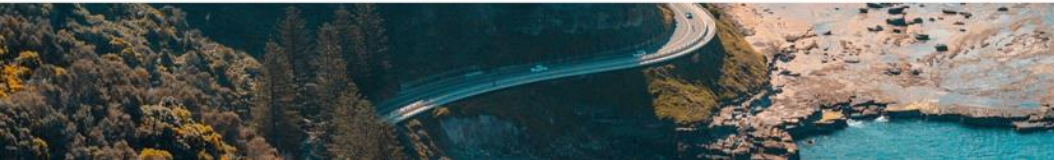
Afternoon Tea

3.30 pm – 4 pm

Next: Panel provocation and discussion



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Asia-Pacific Ministerial Conference on Disaster Risk Reduction

James Gilling

First Assistant Secretary, Humanitarian and Partnerships Division,
Department of Foreign Affairs and Trade

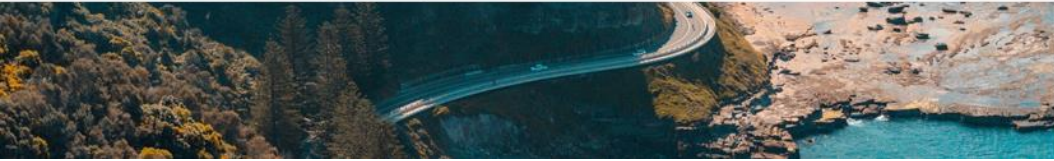
Asia-Pacific Ministerial Conference on Disaster Risk Reduction 2022

(<https://youtu.be/lakriHx2ZC8>)





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Panel provocation and discussion

Erwin Jackson

Director Policy, Investor Group on Climate Change

Natalie Egleton

CEO, Foundation for Rural and Regional Renewal

Prof. Mark Howden

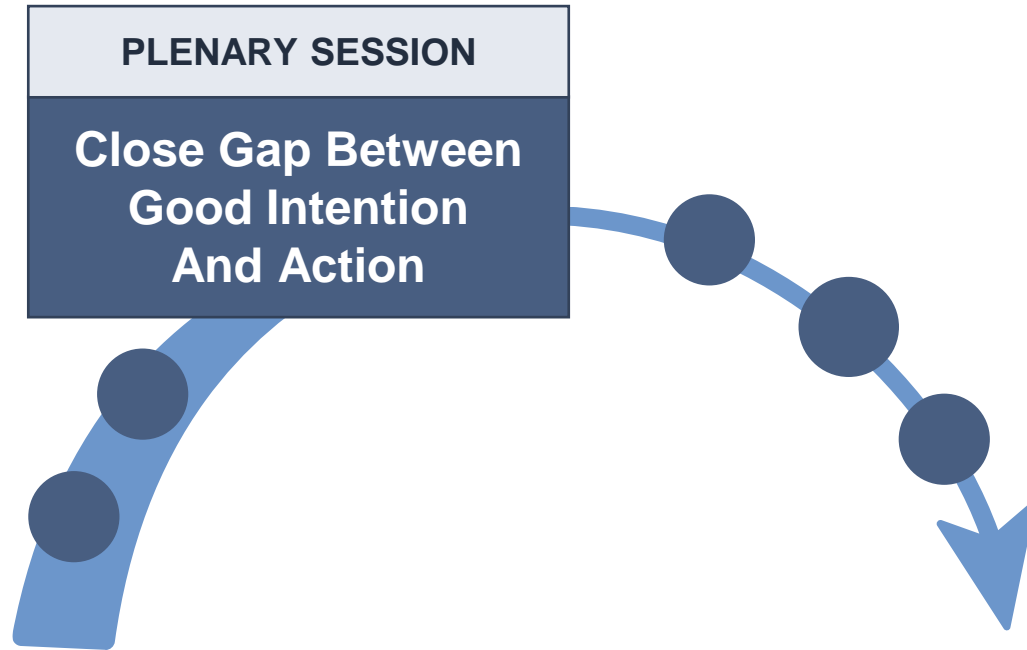
Director, Institute for Climate, Energy and Disaster Solutions,
Australian National University

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Where We Are Now:



The emerging actions we discussed:

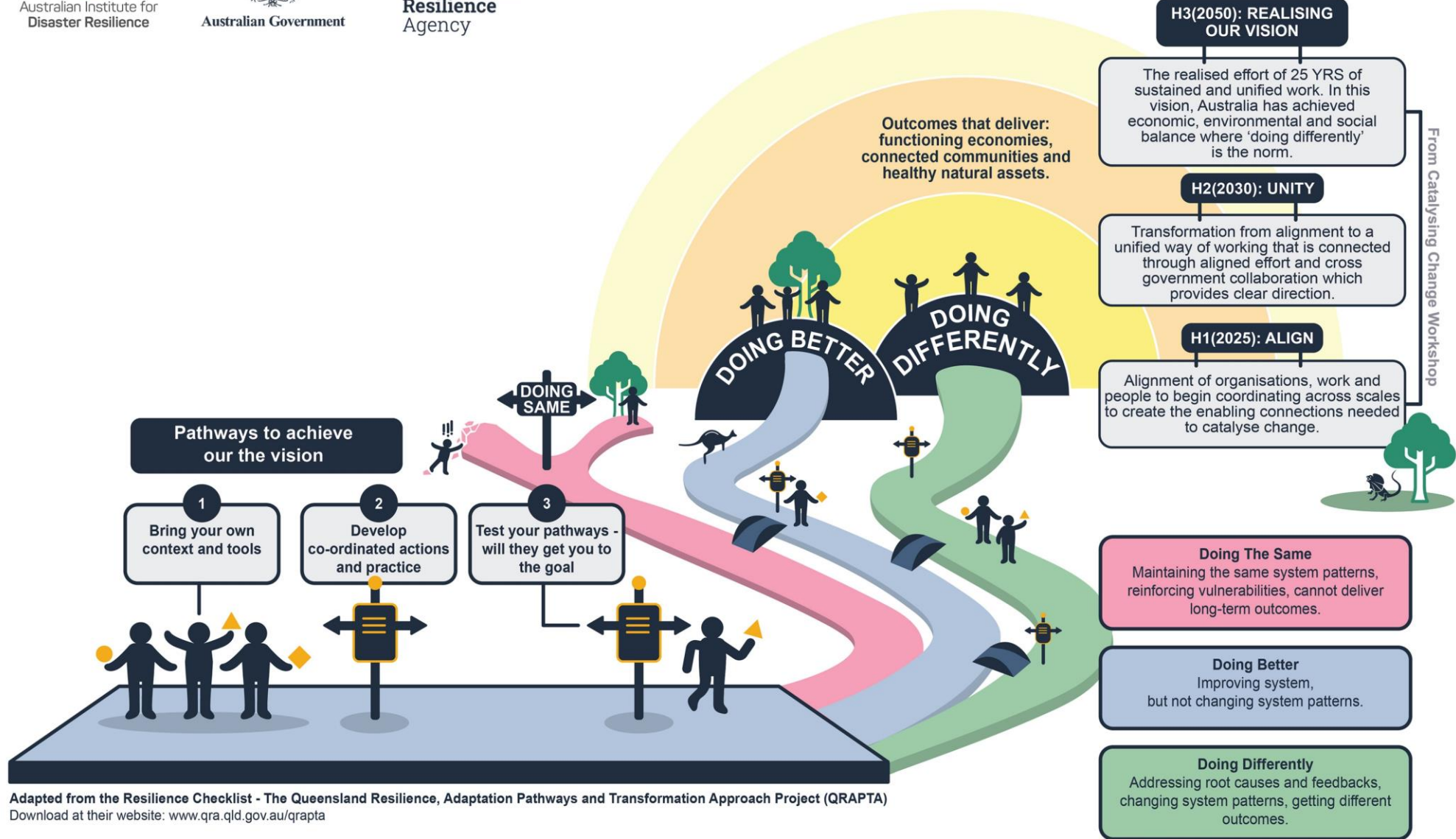
Invest in and incentivise innovation and action of all stakeholders to reduce liabilities and the creation or transfer of risks, including levers and legal accountability in land-use planning and decision-making and governance.

The emerging actions we will now discuss:

Build competencies, capability, capacity for youth (and more broadly) to act for their future.

Address mental health by through anticipatory learning, agency & action.

Formalise/mandate wider range of values in governance, decision-making and investment processes. Develop ways to measure and assess non-financial values.



Adapted from the Resilience Checklist - The Queensland Resilience, Adaptation Pathways and Transformation Approach Project (QRAPTA)
Download at their website: www.qra.qld.gov.au/qrapta

Invest in and incentivise innovation and action of all stakeholders to reduce liabilities and the creation or transfer of risks, including levers and legal accountability in land-use planning and decision-making and governance

Build competencies, capability, capacity for youth* to act for their future. Address mental health by shifting to anticipatory learning, agency, action. (*applies more broadly)

Formalise/mandate wider range of values in governance, decision-making and investment processes. Develop ways to measure and assess non-financial values

Choose one of the 3 emerging actions above. Consider how you would apply it in your context and role.

What is one action you would take? Write it down.

Move to the area of the room related to your topic.

Pair up with someone else and share your action. Discuss:

- Where does your action fall?
- Is it doing the same? Doing better? Doing differently?
- Why?

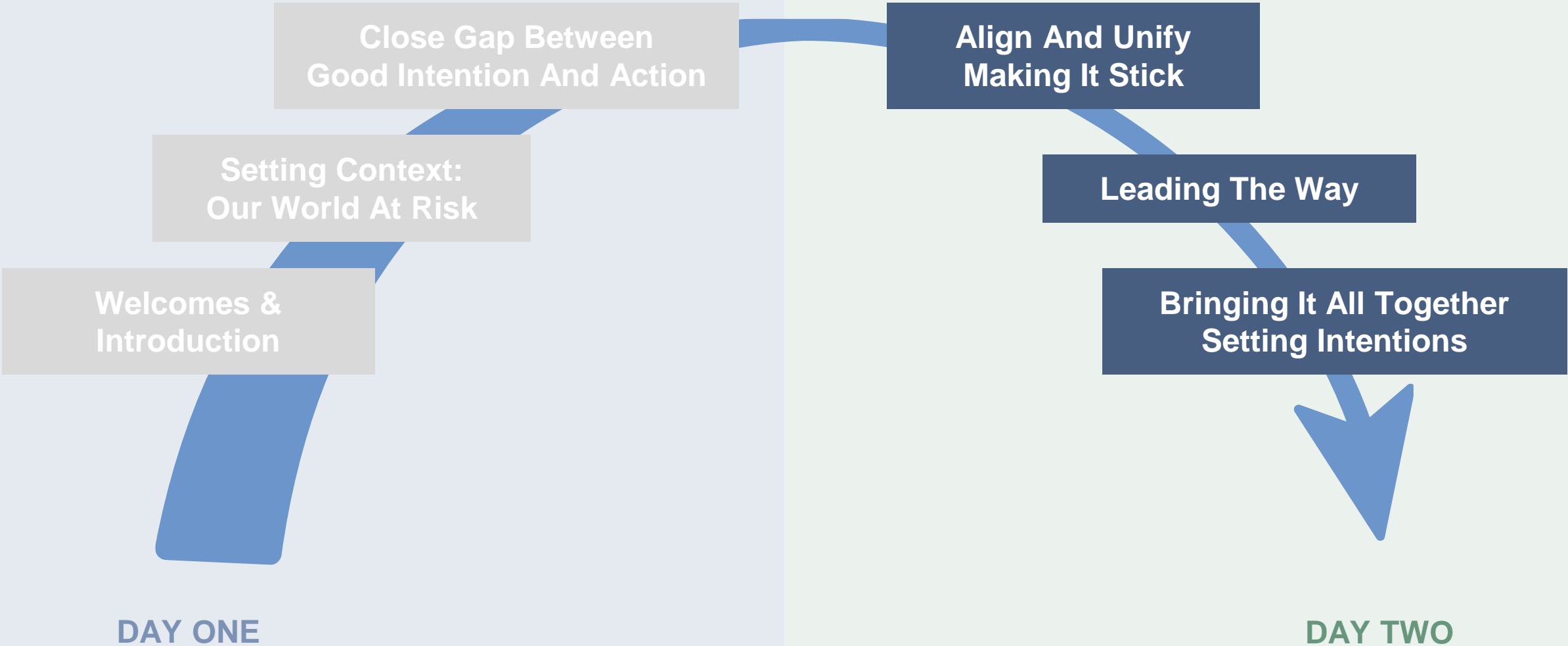
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For the actions that qualified as 'doing differently' enter it into slido

Wrap up – Day One





From Risk to Resilience Summit



Networking event

5.15 pm – 7 pm



From Risk to Resilience Summit

Wednesday 29 – Thursday 30 June 2022

