Talking Points (developed by Monica Buchtmann (nee Osuchowski), Department of Home Affairs).

- The Australian Government established the National Resilience Taskforce in April 2018 to lead nation-wide reforms. We had the opportunity to think deeply about the reduction of disaster risk.
- The purpose of this presentation is to share what we learned with you, and the purpose of the Forums more broadly is to raise awareness of the Guidance [for Strategic Decisions about Climate and Disaster Risk] that's available, the next steps [Framework Implementation] that are underway and to hear a broad range of perspectives from decision makers.
- Some of the concepts in this presentation can be confronting and overwhelming. Many of us experienced this overwhelm in undertaking the work throughout it's different stages. It can be easy to disconnect, disengage or become despondent. However, one message was clear from the people we engaged with during the work - we told not to stop, but to persevere, because it brings hope.
- In this presentation, I'll talk about the current and future context, take you through the journey we've been on and explain why a change in thinking is needed to reduce disaster.
- I'll highlight some of the things that we have learned, and later CSIRO will talk about how these learnings have been translated into guidance materials to

promote collective action.

RESOURCES:

- https://knowledge.aidr.org.au/collections/disaster-risk-reduction/
- https://knowledge.aidr.org.au/resources/national-disaster-risk-reduction-framework/
- https://knowledge.aidr.org.au/resources/profiling-australias-vulnerability/
- https://knowledge.aidr.org.au/resources/strategic-disaster-risk-assessment-guidance/

Other related reports:

- Technical report support the development of the profile
    - https://publications.csiro.au/rpr/download?pid=csiro:EP187363&dsid=DS16
- Deconstructing Disaster: the strategic case for developing an Australian Vulnerability Profile to enhance national preparedness:
    - https://knowledge.aidr.org.au/media/6689/avp_nrt_report_deconstructing-disaster_march-2017.pdf

- Right now we are experiencing the effects of a changing climate.
- Records are being broken. So called rare, or unprecedented, events are occurring more often with greater impact.
- New risks are also emerging. Our infrastructure is ageing.
- We know that more is at stake as the population grows, settlements expand, assets and infrastructure increases
- When combined with existing social stressors and an increasing reliance on interconnected systems - we are becoming more vulnerable. There is greater potential for harm.
- It can be difficult to imagine the many different ways the future could unfold, or events we haven't experienced before.
- This next video story helps us imagine what climate and disaster risk looks like.

Current Context

Seeing beyond the present day

Australian Institute for Disaster Resilience

John Blackburn: bit.ly/DisasterRiskVideos

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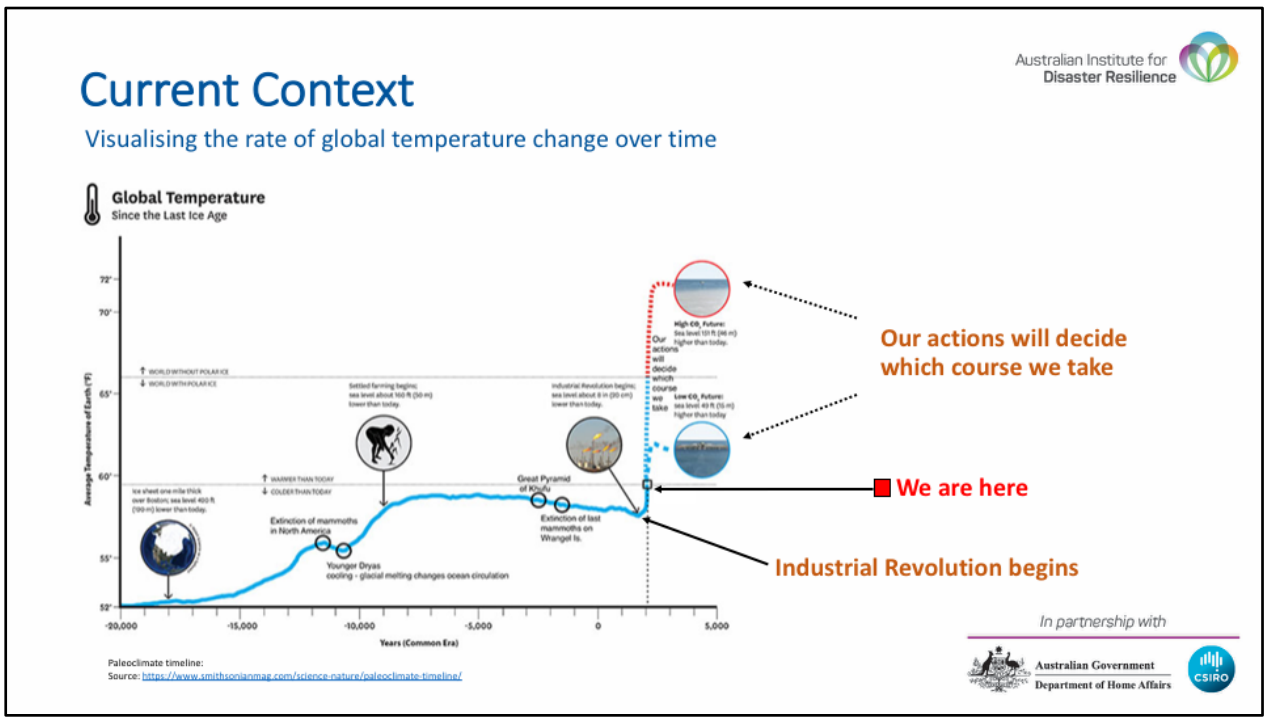


- John said something in the video that really resonated '*when you're looking at something that you don't have a point of reference for, you don't appreciate the danger*'. Because it can also be tempting to normalise change (or base it within the limits of our own experience and points of reference).
- This graph shows the paleoclimate timeline since the last ice-age.
- Can see the point on the timeline where the industrial revolution began and the rapid acceleration of temperature since then, to where we are today. From where we are today, two possible futures are also shown.
- The rate of temperature change over time is important.
    - Since 1970 the global average temperature has risen about 170 times its background rate over the past 7,000 years.
    - Geologists tell us the last time Earth's average temperature was 4 degrees warmer than pre-industrial levels, was around 5–10 million years ago.
- Earth has never experienced the rate of temperature change we currently are.
- This is part of the reason for high levels of uncertainty and ambiguity. It's unchartered territory for modern humans and the earth.
- This is also why we can't rely on historic data or experience to anticipate the future.

In this context:

- The stability of natural, social and economic systems can no longer be taken for

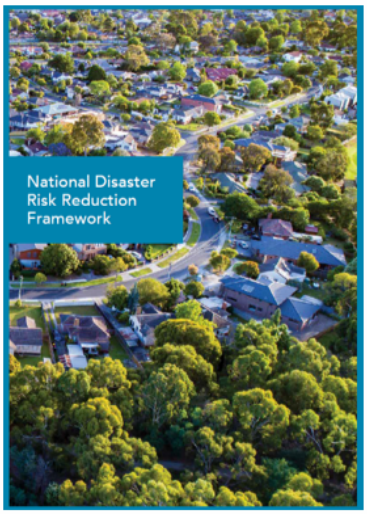
granted.

- Many aspects of our how we live our lives and what we value will be tested, pushed and re-shaped.
- We need to start thinking differently, expand our imaginations and engage the heart, not just the mind.
- Most importantly, we need to act collectively.

National Disaster Risk Reduction Framework

Australian Institute for Disaster Resilience

A new agenda



"In changing how we think about disasters and working together, we can take action to be better prepared and more resilient for what ever comes out way"

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- The National Disaster Risk Reduction Framework, publically released in April 2019, sets the new agenda.
- It sets foundational work needed to reduce existing risk, prevent new risk being created and ensure we have the information to do this.
- It identifies 7 guiding principles and 4 priority areas (and each priority area details several five-year outcomes):

  1) Understand Disaster Risk, 2) Accountable Decisions, 3) Enhanced Investment and 4) Governance, Ownership and Responsibility.

- It's central premise is that by changing how we think about disasters and working together, we can take action to be better prepared and more resilient for whatever comes our way.
- Imagine if through simply changing how we frame disaster we could systematically begin to reduce harm and suffering? For any scale of event. From any source of disruption
- We believe that there is an opportunity to do more than change at the margins.
- We believe that in first, changing how we think about understanding disaster risk – we can open new perspectives, new insights and new ways of thinking to come up with new solutions.
- A change in thinking to better understand systemic disaster risk, underpins the

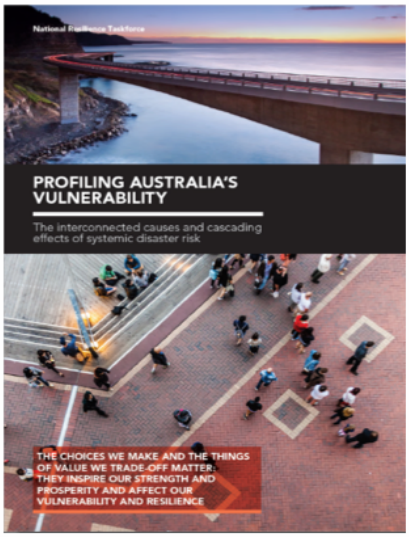
first priority area for action in the Framework (Understand Disaster Risk).

- This new way of thinking is described in a resource supporting the Framework - ***Profiling Australia's Vulnerability: the interconnected causes and cascading effects of systemic disaster risk.***
- The report is supported by a rigorous technical report published by CSIRO.
- This thinking is also (coincidentally) very strongly aligned to the new policy agenda articulated by the United Nations in the ***2019 Global Assessment Report on Disaster Risk Reduction*** released in Geneva in March 2019.

Changing how we think

Australian Institute for Disaster Resilience

What makes us vulnerable when severe to catastrophic events impact what people and society value?



- Severe to catastrophic events are inevitable
  - We do not need to know where or when events will manifest in order to be better prepared nationally
- In most instances, disasters are not 'natural'
  - We need to inquire 'why' and 'how' do naturally occurring events lead to devastating suffering and loss.
- Understanding disaster risk is more than understanding hazards
  - Vulnerability is the least understood dimension of disaster risk.

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- The report was created to fill a gap in official knowledge at the national level to inform decision making and influence nation-wide reforms.
- The content of the report was co-designed and co-created with a broad range of stakeholders over 18 months.
- We collectively sought to answer: *what makes us vulnerable when severe to catastrophic events impact what people and society value?*

- A question grounded in the following:
  - **A premise that severe to catastrophic events are inevitable.** We don't need to know where or when events will manifest, in order to be better prepared nationally.
  - **That in most instances, disasters are not 'natural'.** Disasters arise when hazards intersect with vulnerable communities and when the consequences exceed their capacities to cope. This prompts asking 'why' and 'how' can naturally occurring events lead to devastating suffering and loss?
  - **Understanding disaster risk is about more than understanding hazards like fire, flood and heat, or exposure of people, assets and critical infrastructure**. Sendai FW for DRR recognises five dimensions of Disaster Risk. We've worked on understanding hazards for some time, getting

better at exposure. But, we don’t know much about the dimensions of vulnerability, capacity and the environment. Knowing more about these other dimensions helps build a more holistic picture of disaster risk.

- We partnered with CSIRO and used social science methods to unpack vulnerability and consider values using a co-design approach.
- We needed to build a language and vocabulary for talking about vulnerability.

- There are many systems that we depend on to support and sustain our livelihoods. We depend on environmental, political, economic, social systems. We also rely on agriculture, infrastructure, energy, transport, information, communication systems and supply chains. The various systems supporting our livelihoods have evolved and developed over a long period of time. These systems collectively affect every aspect of people's lives, including: where we place people, how we build homes, the way we plan the location and design of new infrastructure, how we produce, use, supply things like power, water and food, the type of health and care we have, how we communicate, etc.

- There is a lot of momentum and inertia within them. Today, many of these systems are also highly inter-connected across local, regional, national, and global scales. They generally work together well when things are stable and going well in daily life. For example, they've allowed some to live more comfortable than ever before, for us to become more productive than ever before, and they have given us access to efficient and reliable services on demand – which we've grown to depend on and expect.

- However, the interconnectedness also means when one part fails, disruption cascades across all parts of the system. Exposing the limits of our resilience.

Testing our ability to cope. Testing our tolerance for loss. The shock doesn't need to come from within Australia - we can feel the ripple effects from events occurring elsewhere.

- Further, while social, economic and political systems can lead to national prosperity, they can also cultivate and entrench systemic vulnerabilities. Things like: people living in unsafe locations; people having unequal access to social protection; disproportionate access to essential services; unprotected buildings and infrastructure; declining social cohesion; declining health of ecosystems; inability to access information; etc.

- So when disasters happen, the latent vulnerability that already exists within these systems, surfaces. Decisions can be made that increase or decrease our baseline vulnerability to disruption.

- The impacts of a changing climate will bring more unexpected natural hazards events across many of our communities. These events will continue to impact the livelihoods of Australians. Let's take a few moments to listen to some of their stories.

Stories of the lived experience

Experiences of disaster and recovery

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Michael Jenkins & Mary and Paul Clark: bit.ly/DisasterRiskVideos

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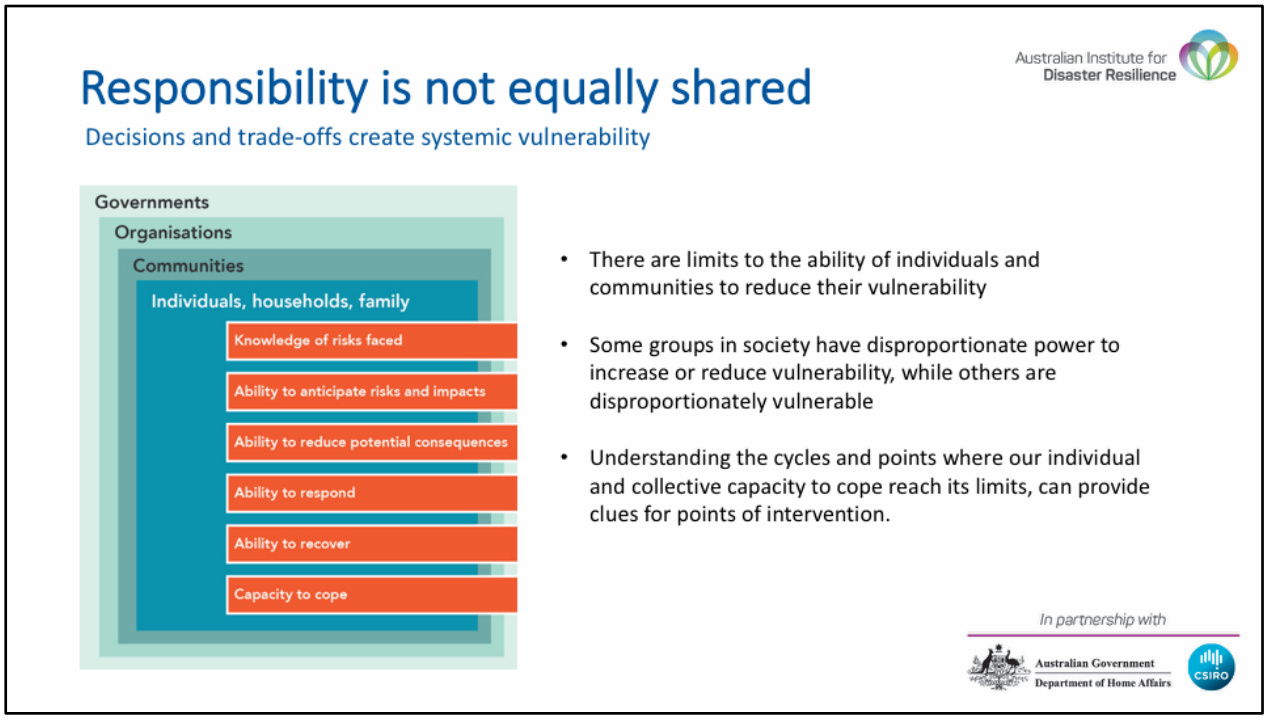
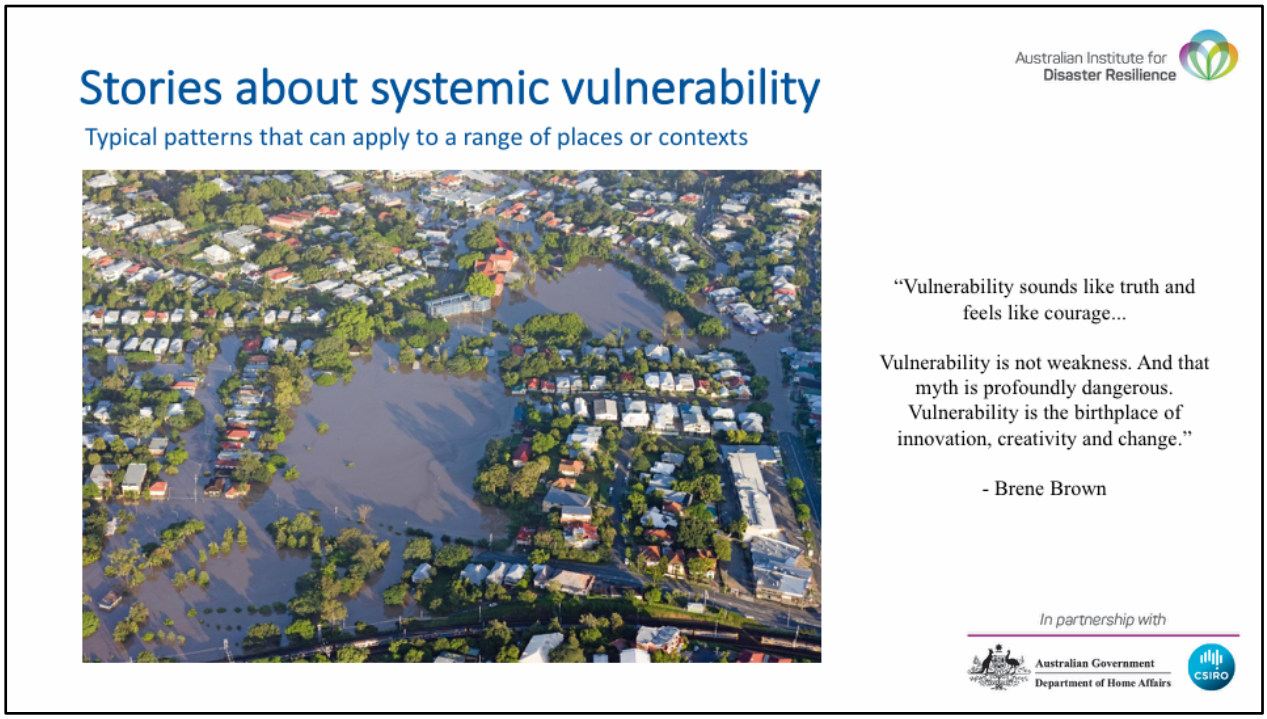


- While recognising everyone, like Michael, Mary and Paul (you and me) have capacities, there are also limits to we can and can't do to reduce our vulnerability.
- I'll give you an example:
    - The provision of electricity is generally characterised by attributes like: availability, affordability, accessibility, redundancy, diversity. These cannot all be satisfied at the same time. On a daily basis, the drive for efficiency in supply chains can see low levels of diversity and redundancy, so when the supply of electricity is disrupted, most people have no choice to access alternate sources.
- The decisions and trade-offs that create vulnerability in the first place, are made throughout the system, making it hard for individuals to reduce their vulnerability [CSIRO will speak to this more in the next presentation].
- So, while it is generally recognised that reducing disaster risk and building resilience is a shared responsibility, we must also recognise the agency and influence that individuals, communities, institutions and governments have to reduce the causes of disaster risk is not equal. So responsibility cannot be equally shared. Some groups have disproportionate power to increase or reduce vulnerability, while others are disproportionately vulnerable.



A range of typical patterns can be in play within society that generally hold true, regardless of the type, location or timing of a disaster. They are also generally transferable across a range of places or contexts.

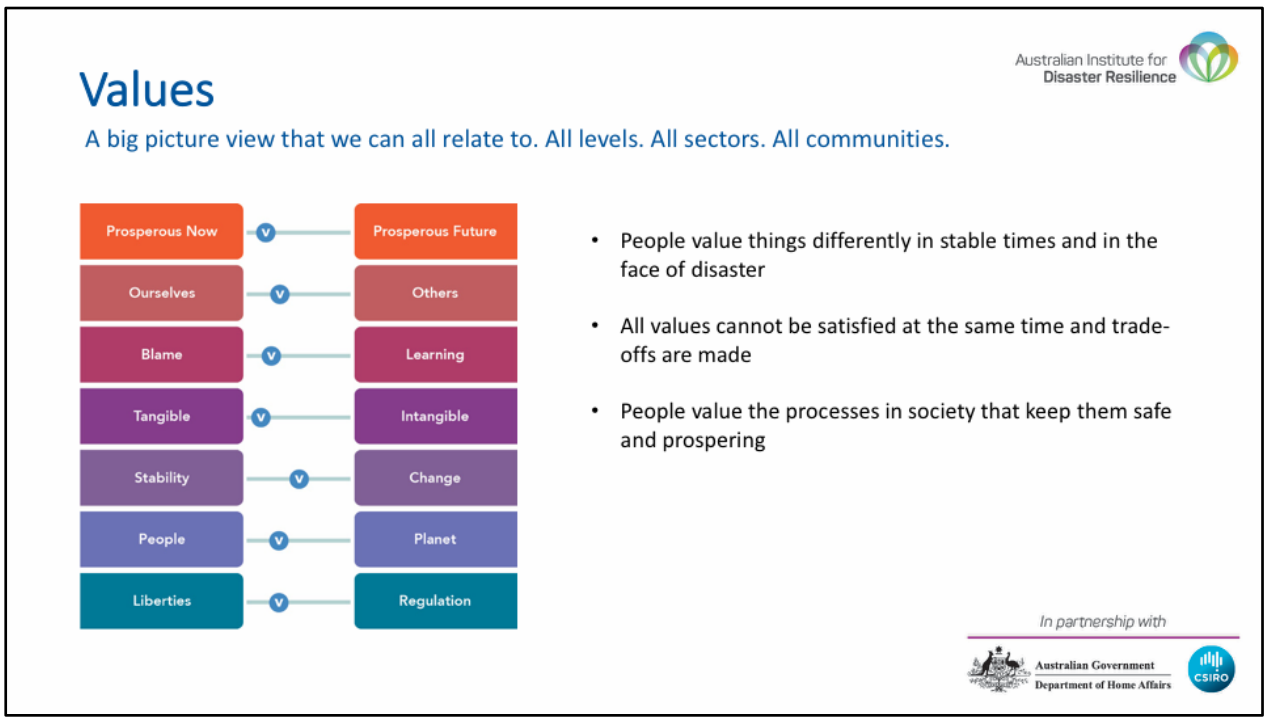
- Several typical patterns are narrated in the report to help talk about the complexity of what makes us vulnerable.
- As an example, here is a simplified story about where we build describing different value relationships that different people might have. *Consider: developers, governments and residents.*
    - **Real estate developers** might value land and housing for economic returns
    - **Governments** might value land for this reason, and to meet need of a growing population.
    - **Residents**, on the other hand, might value their house as a source of security and stability and value the area where they live because of the life experiences they have had there.
- On a daily basis, these value differences may not matter much and different ways of valuing something may comfortably co-exist. However, if circumstances change, problems can arise if some of these ways of valuing something are given greater weight and prioritised over others. If the economic returns from housing and land sales are given greater priority than the security and sense of place that housing and locality can provide, land development will be allowed to occur in places that

are at risk from natural hazards (e.g. on floodplains).

The key messages are that:

- Institutional processes can create cycles where risks are created in one sector and transferred to others.
- Some are exposed to risk for a small window – and transfer long term risk to others – residents, insurers, governments and emergency services
- Things like regulations, standards and services step in to manage trade-offs
- If disaster strikes, consequences are rarely attributed to the decision that generate the risks. This creates perverse incentives for continued risk generating behaviour
- Sometimes those who gain from risk rarely bare the cost, which can result in missed opportunities to mitigate and missed opportunities to take harm out of the system
- Leading to patterns where new risks are being generated faster than existing risks are being reduced.

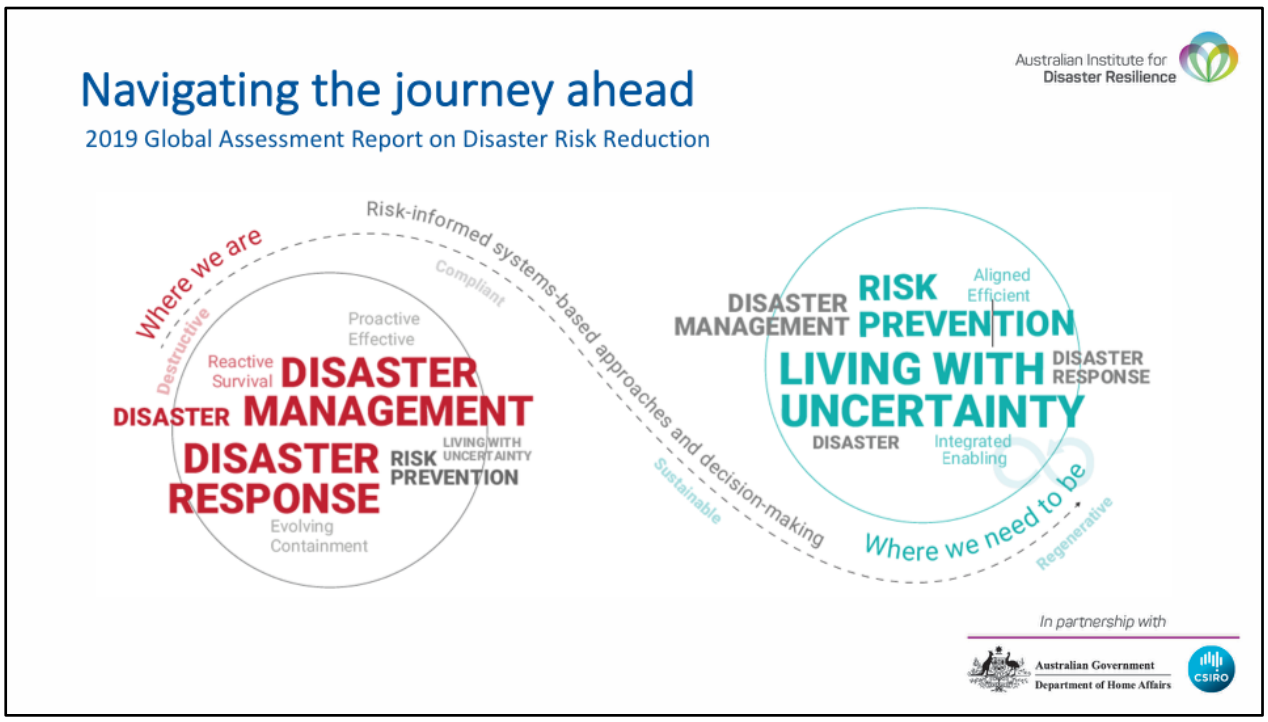
- This highlights the value in taking a systems view of problems and a comprehensive approach to addressing the causes of disaster risk.
- A range of tools are available to support this type of thinking, and more are emerging.
- Vulnerability assessments that incorporate a broad range of perspectives is one way of gaining a richer understanding.
- The guidance [for strategic decisions on climate and disaster risk] explains or points to these resources.



- What people value changes with time, context, motivation, experience and wisdom. What people value drives behaviour and decisions. People value - living things, non-living things, rules, processes. Different people care about different things at different times. Can't assign dollar value to many things we value.
- A key message arising from the work is that people value things differently in stable times and in the face of disaster.
- Disasters can sharpen into focus, that which people value on a large scale. Some things are taken for granted most of the time, but the value is revealed during disaster such as a sense of security, safety, normalcy and self-efficacy, lack of trauma.
- Shown here is a list of some of the value tensions we described in the report that arose from the workshops we held. It's not exhaustive or complete.
- A key point is that we can't satisfy all values and choices at the same time, and trade-offs are made. For example consider the tension between a prosperous now and prosperous future - at an individual level this is also a battle, knowing how much to spend and save and our difficulty imagining the future plays a big role here.
- The key message here is that what we value in times of supply, plenty, abundance, stability and peace are different to what we value at times of scarcity, shortage, change, disruption and hardship.
- Our systems have evolved based on expectations that supply will continue – so we

become vulnerable when it’s disrupted.

- Trade-offs in values are shaped by history, businesses, and governments and strongly determined by the distribution of power, wealth & access to information and resources.
- Getting the balance right is a challenge.
- Learning how to incorporate values and systems thinking into decision making processes is an important part in navigating the journey ahead.
- The guidance helps in navigating next steps.
- Community vulnerability, for example, can be reduced through making better decisions and building services that are sustainable, more equitable, accessible and resilient, so that no one is left behind.



- It is widely accepted that no one jurisdiction, agency, or organisation has the knowledge or capacity to reduce disaster risk alone.
- Reducing disaster risk is everyone's business. It isn't just for our dedicated emergency services personnel or the emergency and disaster management sector.
- While we still need to prepare and respond to emergencies and disasters, while we still need to build capability to prepare for the impact severe to catastrophic events - we also need to draw attention reducing systemic disaster risk and making decisions in high levels of uncertainty and ambiguity.
- The 2019 Global Assessment Report itself, recognises there is a shortage of practical and policy advice on how to implement DRR strategies for complex, systemic risks.
- However, the Guidance for Strategic Decisions on Climate and Disaster Risk provides a methodical way to think through various parts of the problem.

To summarise what we've learned, it's that:

- **Systemic vulnerability needs to be addressed.** The most effective way to reduce disaster risk is to address systemic vulnerability**.**

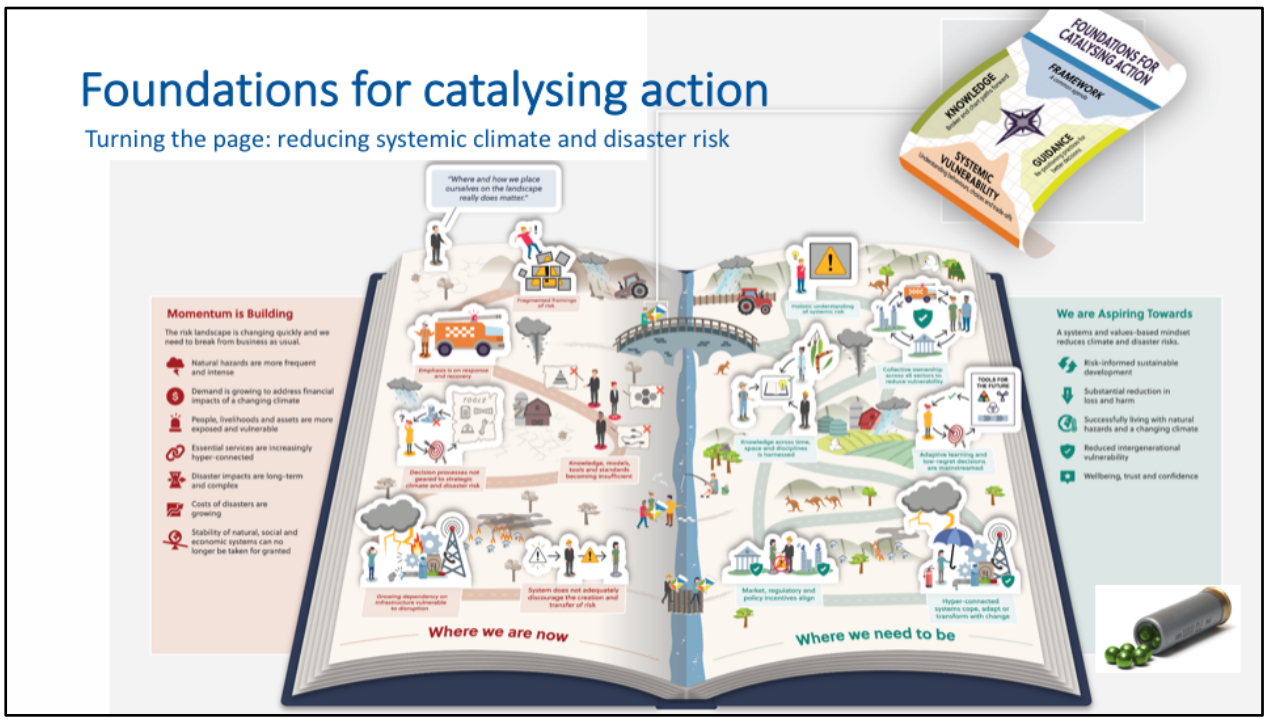
- **Better decision making is key to preventing and reducing disaster risk.** To reduce the impacts of future disaster risk, we must understand the decision-making points where risk is created. Traditionally, emphasis has been placed on being resilient in order to 'bounce back' from disaster – but this is the point where harm is experienced, not the point at which the risk of harm is created. Decisions taken at multiple levels by different actors – whether local, state or industry – affect our disaster risk. These include decisions around land use planning, building standards and infrastructure design, urban and regional development, and asset management and investments. Failing to adequately consider future risks in early decisions facilitates further risk creation, on top of risks already embedded in society and the landscape. Continuing to focus on resilience of particular assets, or individuals and communities who do not control many of the levers needed to reduce disaster risks, is not enough.

- **We need to equip decision makers with the right knowledge.** Understanding risk means understanding what we know, what we don't know, and even trying to tackle what we know we don't know. For example, existing risk assessment and

management approaches are useful for some sorts of natural hazards and categories of risk, but are inadequate with dealing with systemic vulnerability or situations with high levels of complexity and uncertainty. We need to be open and draw in a broad range of new and different forms of knowledge.

- **A suite of options is needed to address disaster risk.** This means asking does it make most sense to harden, adapt or transform? We need to think through the implications of future climate and disaster risk for the long term. A suite of options is important, as a particular response may work in one circumstance, but may not be appropriate in another, and may not be effective over the long term. It does not mean everything needs to be 'gold-plated' or hardened, rather we can understand when it makes sense to harden and when alternative approaches may yield better outcomes.

- **Recognise the connections between disaster risk reduction, climate adaptation and sustainable development.** The United Nations Office of DRR recognises that disaster risks arise from development pathways and trade-offs made. It also recognises the high level of interconnectivity and inter-dependency between three international frameworks (Sendai Framework for DRR, Paris Agreement on Climate Change and Sustainable Development Goals). Australia has committed to these three 2030 Agendas and a key message is that they are all interconnected. One can't be achieved if the others are not, in policy and practice. They cannot be solved in isolation of each other.



- We've characterised what we've learned to catalyse action over the last 18 months in this schematic – the open book diagram.
- It illustrates where we are now to where we need to be.
- It recognises there are many pathways to navigate complexity in working together across all levels and sectors – the guidance helps in navigating those next steps
- A range of projects are already underway to implement the National Disaster Risk Reduction Framework that [EMA Executive will present work underway across Commonwealth to implement the FW after this presentation] will describe shortly, but there is more work to be done to realise the Framework's 5 year outcomes.
- We know there is no silver bullet, but exploring and talking about the least understood dimension of disaster risk, vulnerability - expands our options for reducing disaster risk, and we can be poised for a silver buckshot.

Thank you

Australian Institute for Disaster Resilience

"The future is not pre-determined in any important sense.

It is not an unknown land into which we totter unsteadily one day at a time, but an extension of the present that we shape by our decisions and our actions.

The future is not somewhere we are going but something we are creating.

We all have a role in shaping Australia's future"

Emeritus Professor Ian Lowe

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