

# Climate Warming and Health: Implications for the Northern Territory

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Public Health Association  
AUSTRALIA



Trust me I am a health care worker!



Public Health Association  
AUSTRALIA

# Public Health Association of Australia

- Established 50 years ago – has paid staff in Canberra who lobby federal government
- Two thousand members
- Members consist of health professionals of all disciplines, researchers, epidemiologists
- Publishes 'Australian and New Zealand Journal of Public Health'
- Organises regular conferences, events

Advocacy

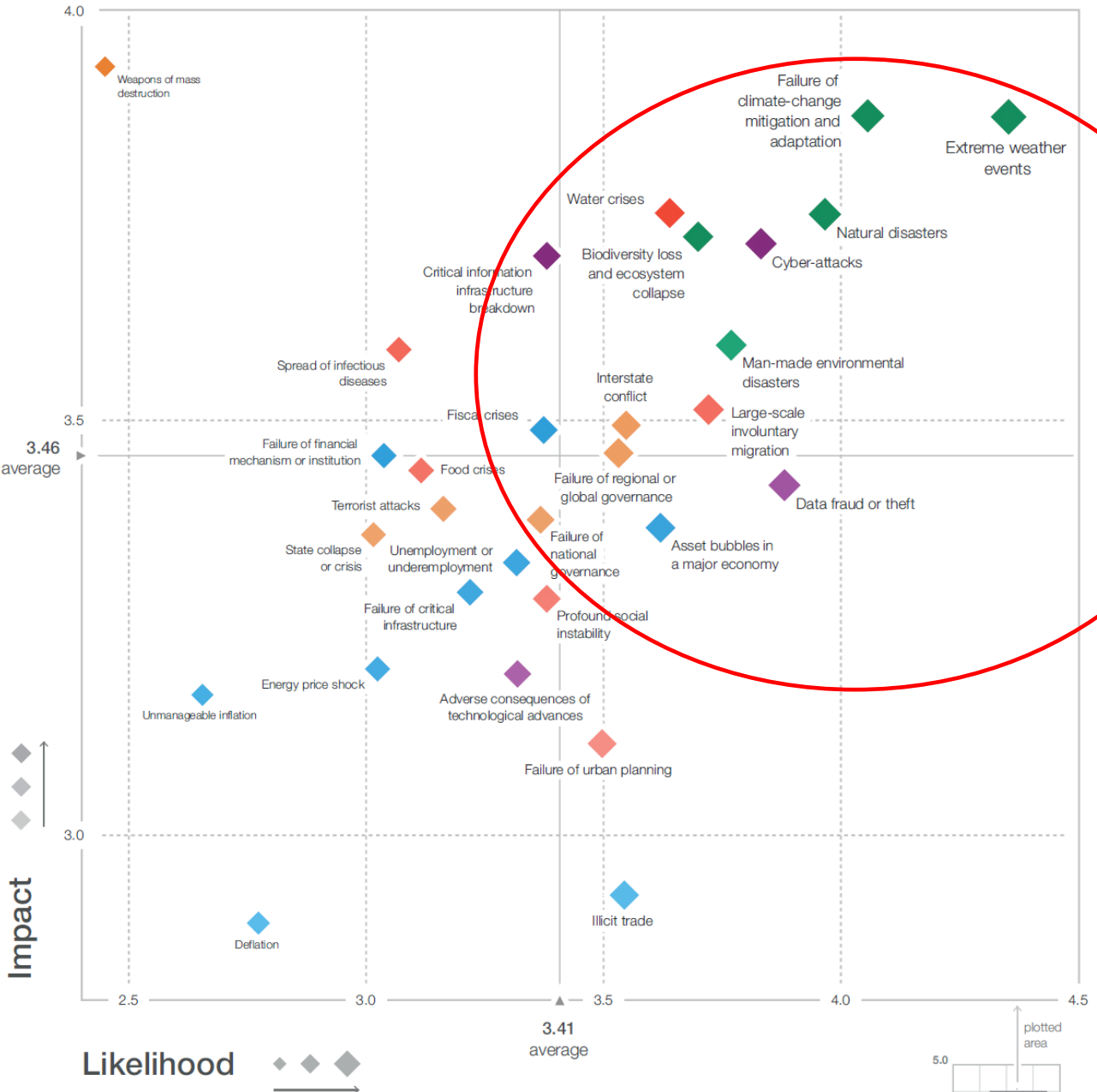
Capacity Building

Policy Development

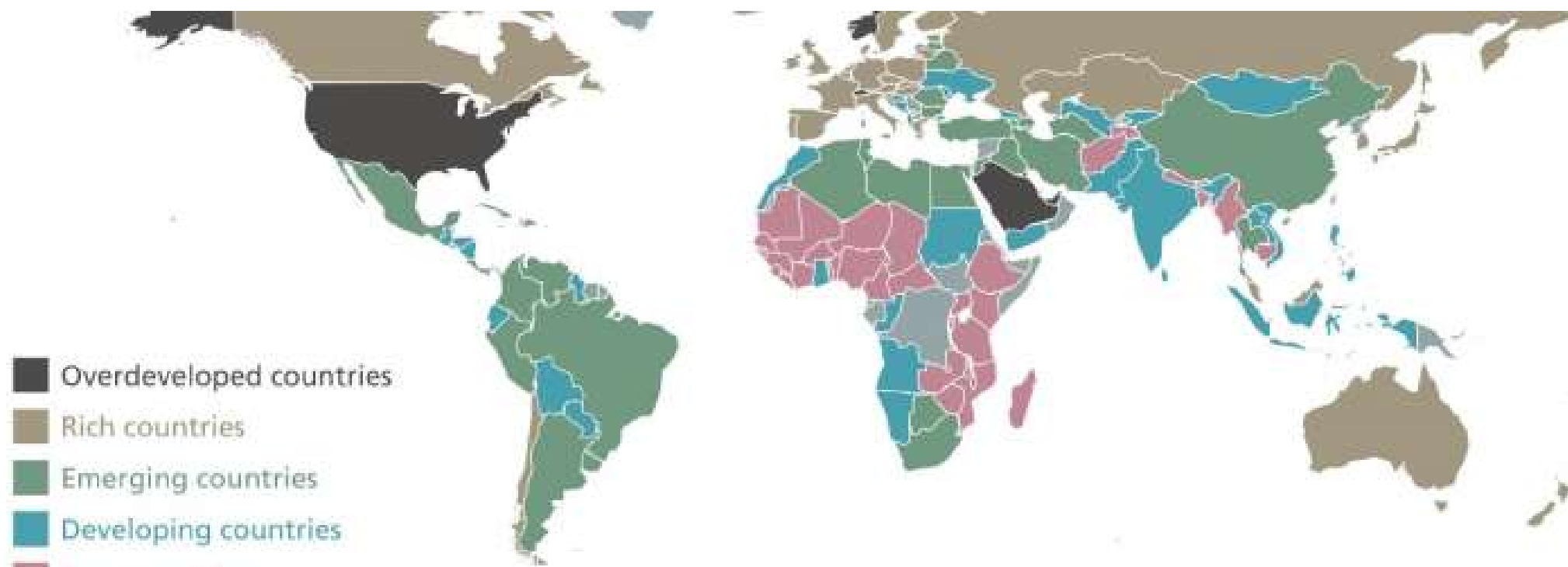


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Figure I: The Global Risks Landscape 2019

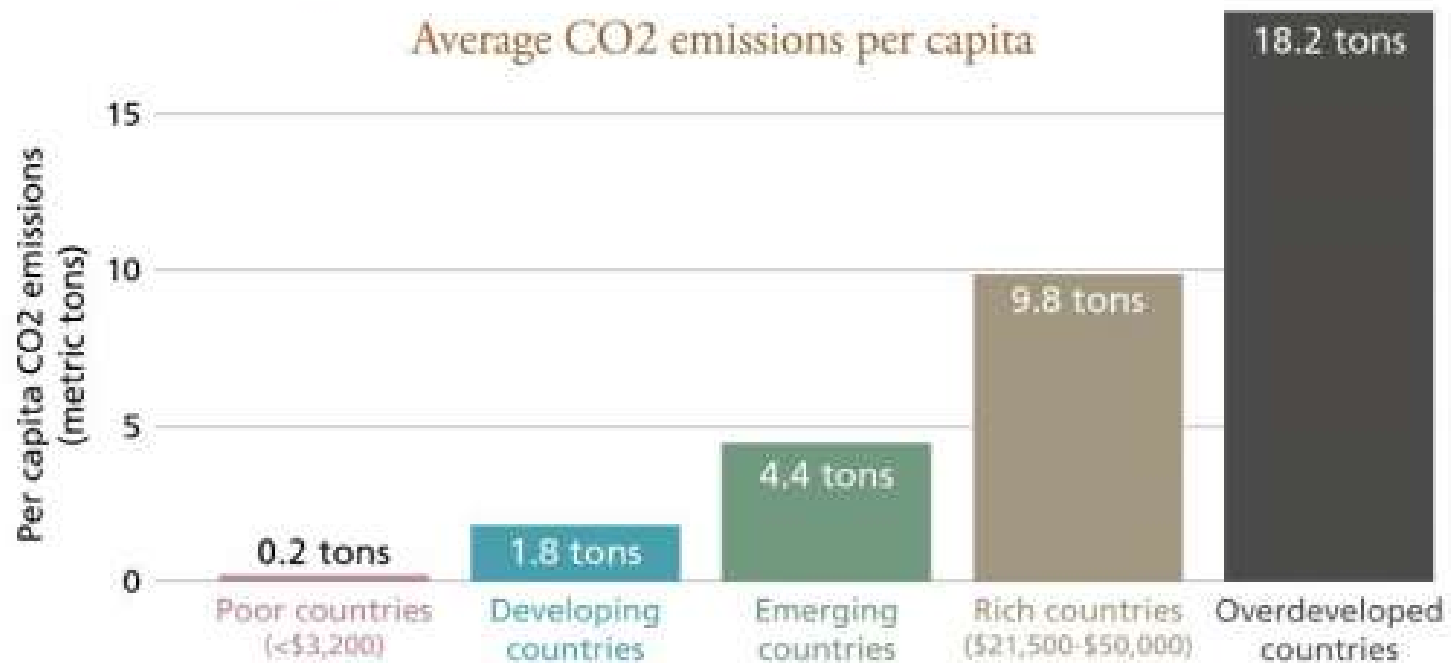


World Economic Forum  
[www.weforum.org/reports/the-global-risks-report-2019](http://www.weforum.org/reports/the-global-risks-report-2019)



- Overdeveloped countries
- Rich countries
- Emerging countries
- Developing countries
- Poor countries
- No data

Average CO2 emissions per capita



# Where do we get our energy from?

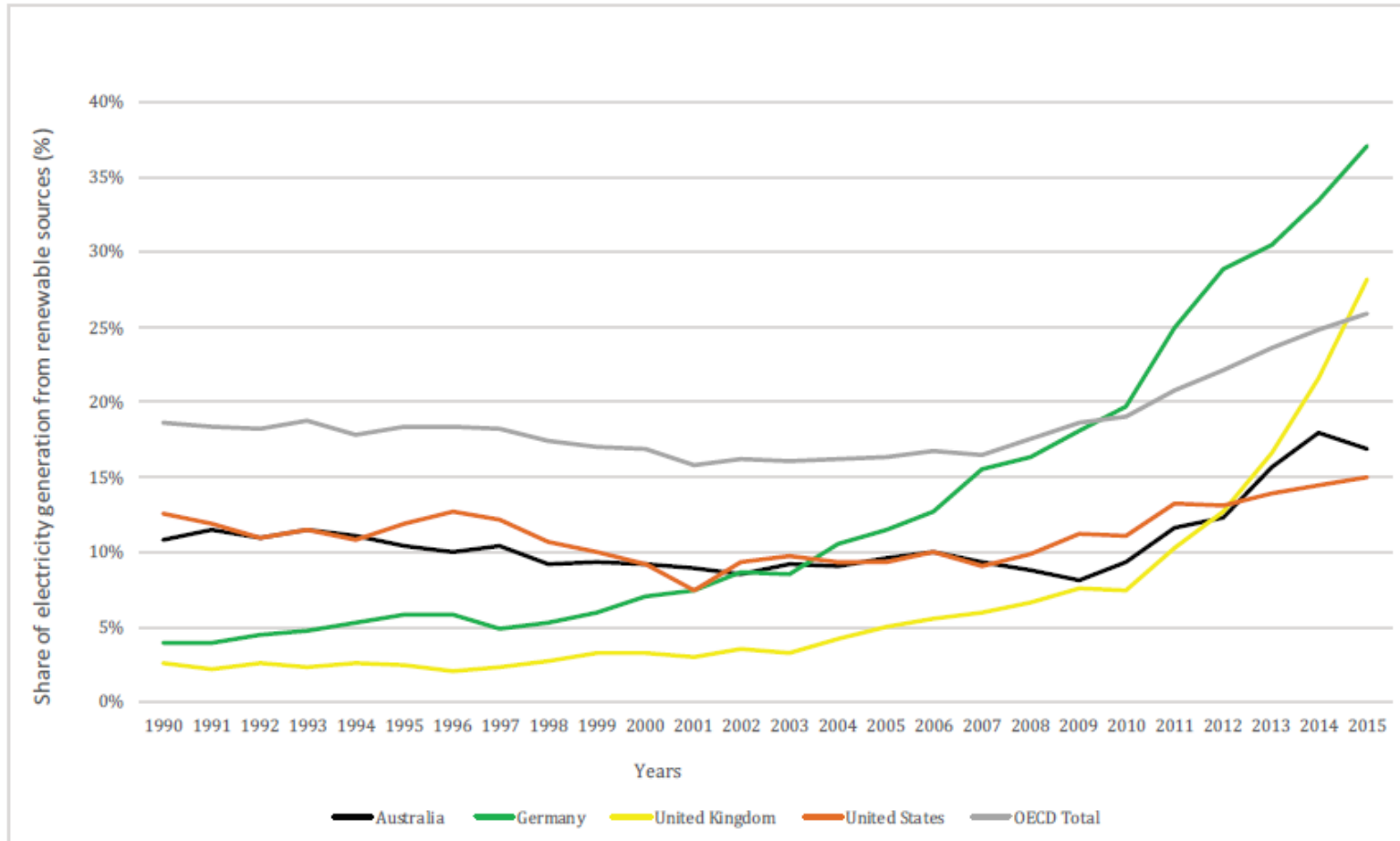


Figure 4: Share of electricity generation from renewable sources in Australia, Germany, United Kingdom, United States, and the Organisation for Economic Co-operation and Development (OECD total), 1990-2015



# Fossil fuels harm health

## BOX 1: HEALTH IMPACTS OF COAL

Coal harms public health in Australia by emitting toxic substances into land, air and water.

These pollutants cause significant cardiovascular and respiratory morbidity and mortality, with coal harming human health at each phase of its production, transport and combustion.<sup>6</sup>

The health impacts of coal in Australia have been estimated at around \$2.6 billion each year.<sup>7</sup>





# The NTG Climate Change Response- Business as usual?

Recognises the real economic opportunities of renewable energy and Indigenous carbon farming, BUT:

- No binding emission reduction targets
- No legislated implementation (Climate Change Act)
- Way still open for rising gas emissions
- No sector plans or recommendations (e.g. Health)



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## NT Climate Change Response



The Northern Territory Climate Change Response provides a long-term vision of where we need to go and how we can harness the opportunities. A climate change response is a responsible economic strategy. It recognises that as Australia and the world transition to a low-carbon economy and respond to climate risk, those that don't will be left behind.

Our Climate Change Response builds on the Climate Change Discussion Paper (Mitigation and Adaptation Opportunities in the Northern Territory) and outlines our approach to addressing climate risk and harnessing new opportunities to:

Continue to facilitate the growth of renewables to diversify and strengthen the Territory economy and enable new export industries;

Build on existing initiatives across the Northern Territory to reduce greenhouse gas emissions across all sectors, in line with a long-term aspirational target of net zero emissions by 2050; and



# Do no harm?

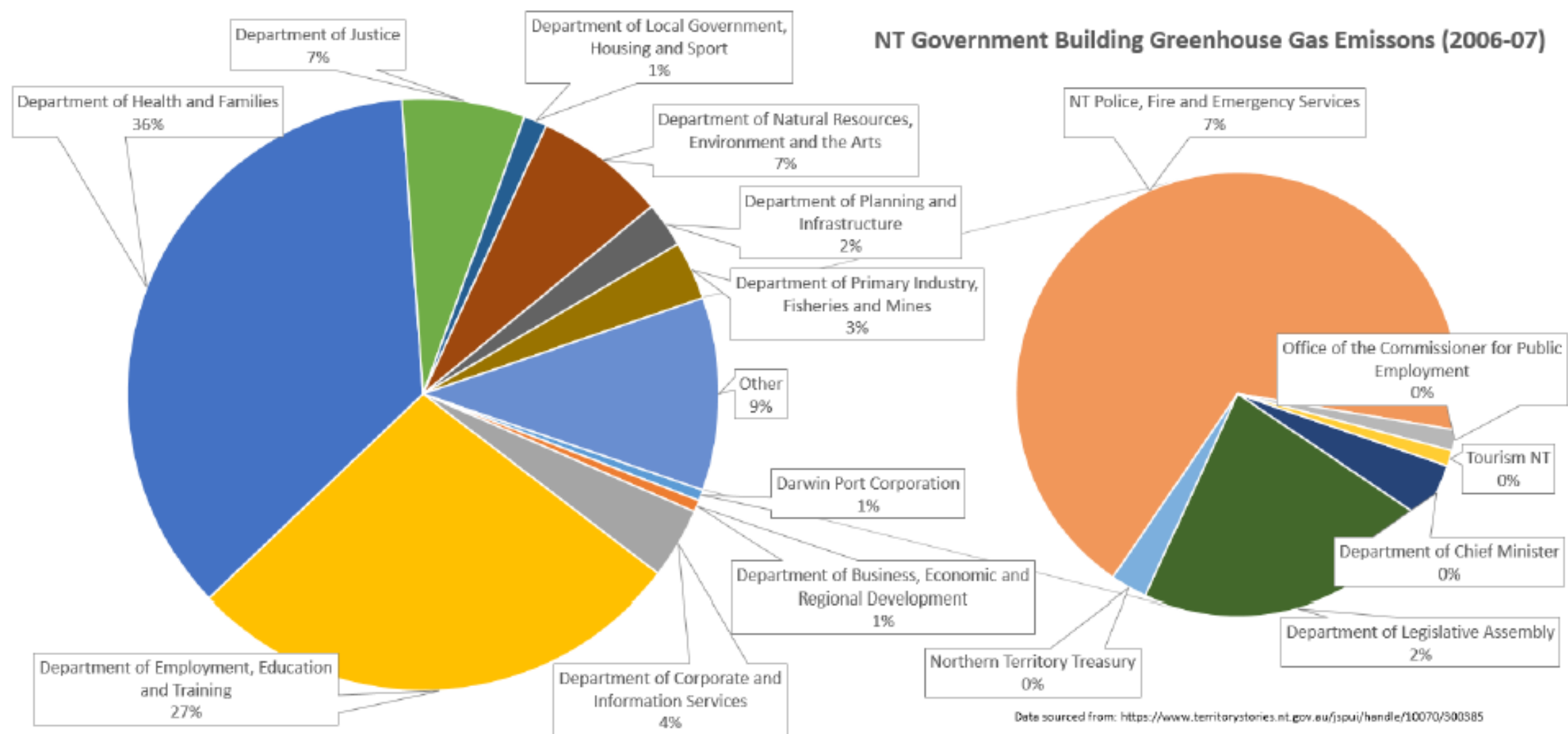


Hospitals account for approximately 86%\* of NTG health building greenhouse gas emissions from energy use:

Alice Springs Hospital (ASH)	19%
Gove District Hospital	5%
Katherine District Hospital	6%
Royal Darwin Hospital (RDH)	53%
Tennant Creek District Hospital	4%

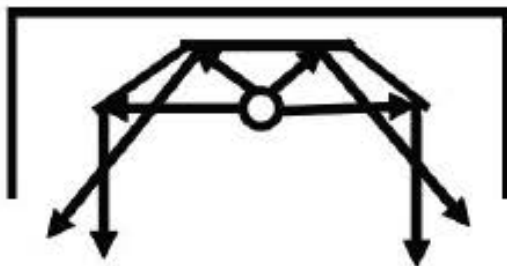
\* Based on 2013-14 data

# Health facilities account for more emissions than any other NTG agency ...



The key energy efficient lighting upgrade concept is simple

# RDH Lighting Upgrade



A lot of useful light is 'lost' in the back corners of old light fittings. By installing reflectors behind fluorescent tubes, more light is directed out of each fitting.



This project demonstrated how up to 60 per cent energy savings can be achieved, whilst preserving the embodied energy in 3,500 steel light fittings



Reflectors direct 25 per cent more light out of each fitting.

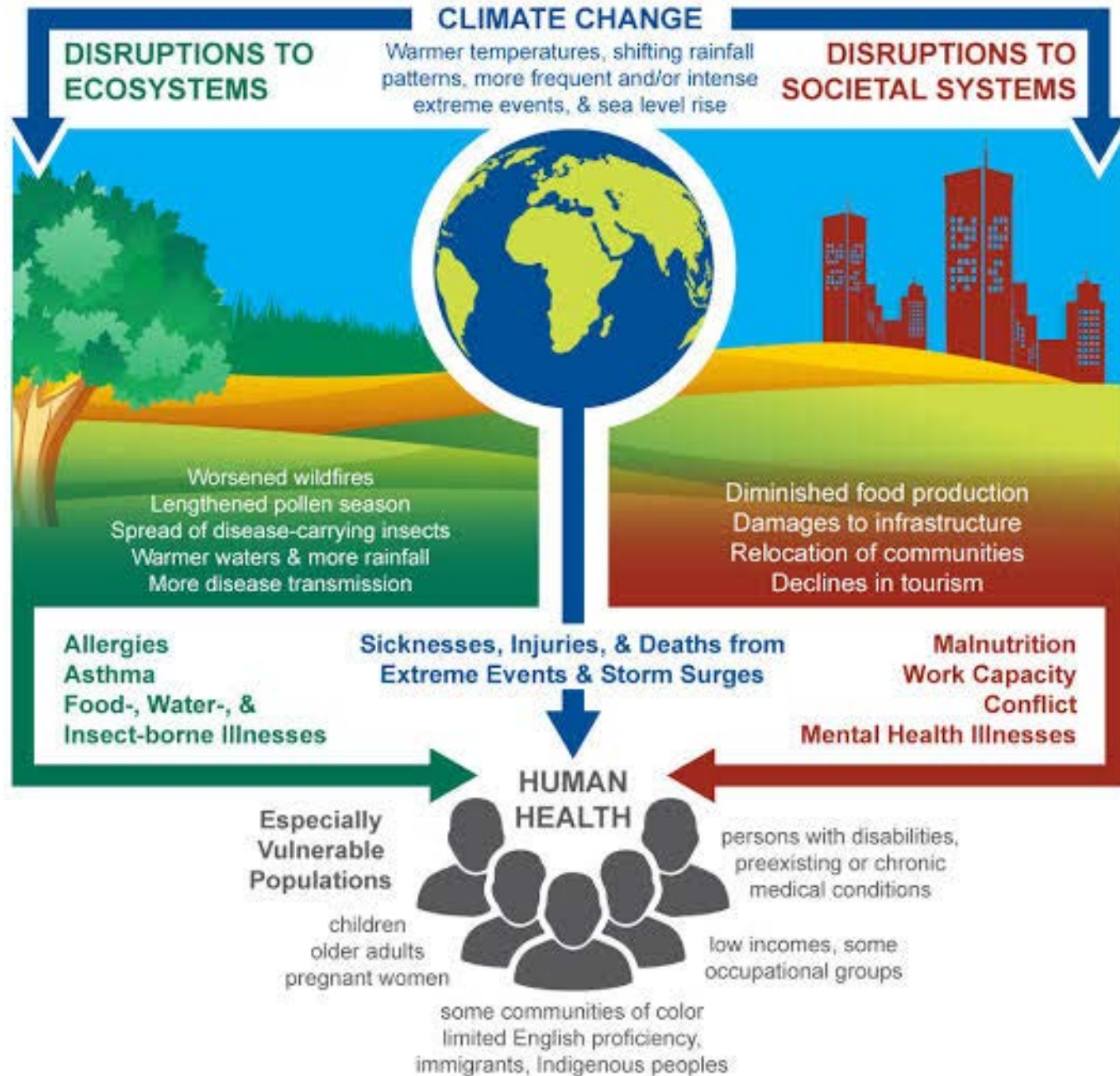
Opal diffusers (which you can't even see through) are being replaced with...

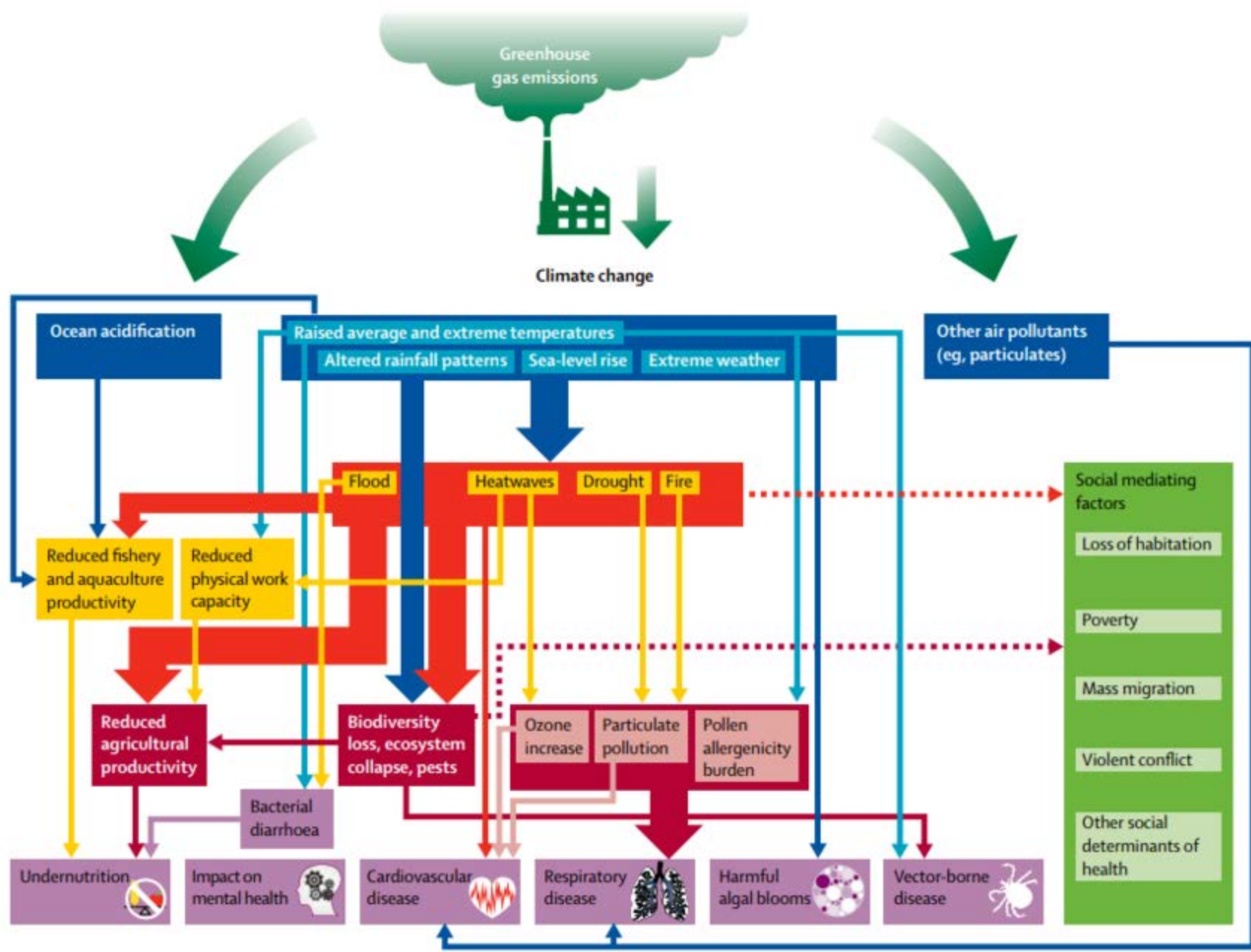
... clear diffusers that increase the light out of each fitting ...

... and the fittings have the same light output with one tube as they did with two.



# The Impacts of Climate Change on Human Health







# Extreme prolonged heat

## BOX 3: HEAT VULNERABILITY IN AUSTRALIA

Increased death and hospital visits during extreme heat events are more likely among vulnerable populations, including adults aged more than 65 years, the very young, and those who have pre-existing medical conditions, mental problems, social isolation, low-economic status, and strenuous outdoor physical activities.





# Vulnerable people





National, state, city plans...

The cover features a blue header with three circular icons: a thumbs up, a globe with a plant, and a sun with a leaf. Below the icons are the words 'UNDERSTAND | ADAPT | TRANSITION'. The main title is 'Queensland Climate Adaptation Strategy' followed by 'Human Health and Wellbeing Climate Change Adaptation Plan for Queensland'. A circular icon with three people is positioned to the right of the title. The central image is a collage of four photos: a hospital hallway with staff and a patient, a woman drinking water, an elderly woman talking to a doctor, and a child looking at a fan. The bottom of the cover includes logos for the Queensland Health Alliance and the Queensland Government.

FRAMEWORK FOR A  
**NATIONAL STRATEGY  
ON CLIMATE, HEALTH AND  
WELL-BEING FOR AUSTRALIA**

June 2017



 **OUR CLIMATE,  
OUR HEALTH.**



## THE FRAMEWORK COVERS SEVEN AREAS OF POLICY ACTION



### 1. HEALTH-PROMOTING AND EMISSIONS-REDUCING POLICIES

Policies that reduce the risks to people's health and well-being while simultaneously reducing greenhouse gas emissions.



### 2. EMERGENCY AND DISASTER-PREPAREDNESS

Supporting the identification of vulnerable populations and gaps in infrastructure in order to adequately prepare for the impacts of climate change.



### 3. SUPPORTING HEALTHY AND RESILIENT COMMUNITIES

Enhancing the capacities of communities to anticipate their climate risks and reduce impacts on health and well-being in their communities.



### 4. EDUCATION AND CAPACITY BUILDING

Educating and raising awareness of the health impacts of climate change within the health workforce, and the wider Australian community.



### 5. LEADERSHIP AND GOVERNANCE

Establishing effective governance arrangements which facilitate horizontal and vertical collaboration in implementing climate change and health initiatives at the national level, and advocating and demonstrating leadership internationally on action to address the health impacts of climate change.



### 6. A SUSTAINABLE AND CLIMATE-RESILIENT HEALTH CARE SECTOR

A low/zero carbon, environmentally sustainable, climate-resilient health sector which can effectively respond to the health impacts of climate change.



### 7. RESEARCH AND DATA

Supporting Australia's health and climate research capacity to evaluate specific health threats, priority needs and to monitor trends and opportunities for maximising multi-sector benefits.

# Broad support and concern

The development and implementation of this Framework is supported by the organisations whose logos appear below:





**FOUNDATIONS OF GOOD HEALTH**



# Possible Adaptation Measures

1. **Leadership and governance**—plan and implement responsible, evidence-based, locally relevant climate change adaptation.
2. **Building the preparedness** and ability of the health services sector and the community to respond to climate threats to health.
3. **Specific public health measures**—evaluating specific vulnerabilities in the population and implementing appropriate measures to reduce avoidable illness and deaths.
4. **Risk management and legal liability**—ensuring the operational and strategic plans of all facilities and services acknowledge and reflect risks of climate change.
5. **Research, data and evaluation**—guiding policy and decision-making through research and climate-health risk surveillance to understand risks, vulnerabilities and effective strategies.
6. **Economics and financing**—ensuring that financing decisions to support climate change related programs and initiatives include assessment of all the relevant health costs and benefits associated with climate change and adaptation.

7. **Collaboration across agencies, sectors and stakeholder groups**—ensuring that government agencies, peak bodies, and industry and professional associations and service providers work together to achieve climate change adaptation and sustainability goals.
8. **Education and communication**—developing communication, education and training initiatives that inform and build capacity across the health and wellbeing workforce, policymakers and the wider community to respond to the health impacts of climate change.
9. **Policy, regulation and legislation**—providing policy certainty for services, sectors and industries to guide decisions and investment for effective climate change adaptation.
10. **Infrastructure, technology and service delivery**—investing in climate-resilient infrastructure, technology and service design to avoid delayed costs and ensure service integrity.