Health Co-Benefits of Climate Action

Addressing climate change is an opportunity to improve health outcomes, strengthen communities, and boost social and economic resilience. Health co-benefits are secondary, sometimes unintended, benefits to human health that accrue from climate actions. Whether reducing emissions (mitigation) or building community preparedness and resilience to climate risks and impacts (adaptation), there are health co-benefits associated with many climate actions across all sectors.

Table 1 illustrates how climate mitigation and adaptation actions can contribute to health co-benefits by protecting health and wellbeing from climate-related hazards and events, such as heatwaves, bushfires, air pollution, and disease hazards (e.g. food, water-borne pathogens).

When actions are carefully designed, these health benefits can address social inequities by reducing risks and impacts to at-risk people, such as children, people over 65 years of age, people on low incomes, Aboriginal and Torres Strait Islanders, people who already have a medical condition and people from culturally and linguistically diverse backgrounds.

Both mitigation and adaptation actions are needed to tackle climate change and planning them together is key. Importantly, failing to invest in climate adaptation and mitigation actions lead to greater economic and social costs that can affect health outcomes. **Figure 1** (overleaf) illustrates some of the different economic and social costs of climate inaction that can impact health across various settings.

Table 1: Examples of health co-benefits of climate actions by sector/system - adaptation (yellow); adaptation and mitigation (green); mitigation (blue)

Sector/system	Examples of climate actions	Health co-benefits
Energy	Expand renewable energy use, reduce fossil fuel use	Reduced exacerbations of heart and lung conditions from improved air quality
Built environment	Incentivise passive design, and energy efficiency standards, increase use of 'cool' and less heat-absorbing materials (e.g. 'cool roofs')	Reduction in heat-related injury and death, improvement in mental health from thermal comfort
	Provide refuge from extreme heat and heatwaves, including through increasing urban greening	Reduction in heat- and other related injuries and deaths during extreme events
	Introduce risk zoning policies and relocate or repurpose at-risk structures	Reduction in injuries and deaths related to extreme events (e.g. bushfires and flooding events)
	Protect and improve the natural environment, including the ecosystem services it provides	Reduction in heat-related injury and death, improvement in physical and mental health from increased activity
Food systems	Increase availability and uptake of healthy fresh, local affordable and plant-rich foods, and limit discretionary and ultra-processed food and drinks	Reduction in obesity, cardiovascular disease, diabetes and some cancers, and reduced food insecurity
Emergency management	Enhance communication of climate risks and threats	Reduction in injuries, illnesses and deaths from extreme events
Transport	Increase equitable, affordable, accessible and safe public transport options	Reduced exacerbations of heart and lung conditions through improved air quality and increased physical activity
	Decrease use of private motor vehicles, incentivise low-emission vehicle use	
	Increase safe options for walking and cycling (active transport)	
Water	Protect and improve drinking water, sewage and stormwater infrastructure	Reduction in water-borne diseases and water-related injuries and deaths

Figure 1: Examples of economic and social costs of climate inaction with implications for health outcomes

Investing in climate action to protect health

Investing in climate adaptation and mitigation actions can lead to significant cost savings by reducing health burdens, energy demand, infrastructure damage, and economic disruptions. **Table 2** below provides some examples of estimated cost savings from climate action programs in Victoria.

Initiative	Time scale	Cost savings
Improving energy efficiency and thermal comfort to improve temperature, energy use, health and quality of life [1]	Over 10 years	AUD$4,783 per person (Health +Energy)
Fuel savings when switching from high-emissions to low-emissions vehicles [2]	Every year	AUD$1300 per household
Modelling road network adaptations to account for flooding [3]	To 2070	AUD$8.29 (for every $1 spent, with a 7% discount rate)
Modelling road network adaptations to account for bushfires and bushfire-induced landslides [3]	To 2070	AUD$11.52 (for every $1 spent, with a 7% discount rate)
Total health benefits from Victoria's 2035 climate target [4]	Between 2022 & 2070	AUD$5.7billion

Table 2 references:

1. *Sustainability Victoria (2022). The Victorian Healthy Homes Program: research findings < https://assets.sustainability.vic.gov.au/susvic/Report-Energy-Victorian-Healthy-Homes-program-research.pdf>*
2. *Victorian Department of Environment, Land, Water and Planning (2021). Victoria's Zero Emissions Vehicle Roadmap <https://www.energy.vic.gov.au/__data/assets/pdf_file/0036/575676/Zero-Emission-Vehicle-ZEV-Roadmap.pdf>*
3. *Infrastructure Victoria (2024). Weathering the storm: adapting Victoria's infrastructure to climate change. <https://assets.infrastructurevictoria.com.au/assets/Weathering-the-storm_adapting-Victorias-infrastructure-to-climate-change_Final.pdf>*
4. *Victorian Department of Energy, Environment and Climate Action (2023). Victoria's 2035 emissions reduction target: supporting analysis. <https://www.climatechange.vic.gov.au/__data/assets/pdf_file/0032/635594/Victorias-2035-Climate-Target-Supporting-Analysis.pdf>*

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