

Let's talk about the weather!

EXTREME WEATHER IN MELBOURNE'S WEST: STORIES FROM CULTURALLY & LINGUISTICALLY DIVERSE COMMUNITIES

Shedding light on
the significance of
weather and how
extreme weather
events impact
communities in
Melbourne's West.



In partnership with

Funded by Lord Mayor's
Charitable Foundation

We acknowledge the Ancestors, Elders and families of the Kulin Nation who are the Traditional Owners of University land. We also acknowledge all Traditional Owners of Country throughout Victoria and pay our respect to their culture, and their Elders past, present and future.

As we share our own knowledge practices within the University may we pay respect to the deep knowledge embedded within the Aboriginal community and their ownership of Country.

We acknowledge that the land on which we meet is a place of age old ceremonies of celebration, initiation and renewal and that the Kulin people's living culture has a unique role in the life of this region.



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BACKGROUND TO THE PROJECT

It may seem like a mundane topic of small talk but the weather has a major effect on people's lives. Melbourne is renowned for experiencing four seasons in one day. But what happens when the weather becomes extreme? Globally, climate change-driven extreme weather events are increasing in frequency and intensity. Australian cities are experiencing the effects of heatwaves, floods and storms with varying impacts on health and vulnerable communities hit the hardest, including culturally and linguistically diverse (CALD) communities.

In 2022, Lord Mayor's Charitable Foundation funded this project as part of their Climate Change Resilience in the West Initiative. The project aimed to contribute to outcomes that included:

- Increased cross-sector collaborations to strengthen community resilience to extreme weather; and
- Increasing the capacity of community based support organisations and service providers to respond to the health impacts of climate change.

Melbourne's west has a rich cultural diversity, which makes it an apt setting to explore the experiences of individuals from CALD communities with regard to extreme weather events.

We wanted to find out:

1. How individuals from CALD communities prepare for and manage their lives during extreme weather events.
2. The knowledges and practices of these individuals, particularly those specific to their cultures.
3. The ways that community based support organisations and local governments can best support individuals prior to, during and after extreme weather events.

Participants

CALD participants from six local government areas in Melbourne's West took part:

Brimbank (30 participants)
Hobsons Bay (7 participants)
Maribyrnong (5 participants)
Melton (5 participants)
Moonee Valley (9 participants)
Wyndham (21 participants)
Other (2 participants)

From May to October 2023, participants shared their stories via group discussions, individual interviews and creative activities such as drawing, poetry and storytelling.

We met with, and learnt from, participants from many diverse communities. 79 people, aged between 24 and 96 years old, from 22 countries took part. Their countries of origin were: Bulgaria, China, Egypt, Ethiopia, France, Hong Kong, India, Indonesia, Iran, Italy, Lebanon, Malta, Mauritius, Poland, Romania, Samoa, Serbia, Somalia, Sri Lanka, Sudan, UK, Vietnam



Four seasons in one day. (Sunshine West resident, aged 72, originally from Malta)

In my country, if I go back, I know how to prepare. I don't have any idea here. (Flemington resident, aged 33, originally from Ethiopia)

When I first arrived, I was never given any information about extreme weather. (St Albans resident, aged 26, originally from Vietnam)

When I migrated to Australia, I thought that all my knowledge about Australia is hot country, the climate here is hot. Oh, I said, I'm happy, I'm going to have a similar climate to my country. But I was shocked when I came here. (St Albans resident, aged 69, originally from Sudan)

In 1965, in our year 12 chemistry class, our teacher told us of the 1840s chemist Arrhenius who predicted the burning of coal would heat up the earth. We cheered as we shivered in the cold classroom. (Sunshine West resident, aged 74, originally from Malta)

From a young age, winter has always been the best time of the seasons. The winter in Melbourne, my home, since I migrated from Malta at the young age of 9. (Sunshine West resident, aged 72, originally from Malta)

EXTREME WEATHER IN COUNTRIES OF ORIGIN

Participants described similarities between extreme weather events in their countries of origin and those experienced in Melbourne. There are also differences that highlight the stark contrast between Australia and other regions of the world.

STORMS

A lot of hurricanes and things in the middle of Vietnam. This hurricane is coming and it will hit the middle and we can see storms, really heavy rains, windy. *(Altona resident, aged 38, originally from Vietnam)*

Sirocco [*Mediterranean wind*] came in from the Sahara from the south and it left the whole island [of Malta] covered in this absolutely fine Sahara dust, red dust. My blue car was red. *(Sunshine West resident, aged 74, originally from Malta)*

RAIN & FLOODS

Flooding we have seen in our lives so many times. In rainy season, it's natural, the rivers overflow. *(Wyndham resident, aged >55, originally from India)*

The flooding. We didn't know what time it's coming or how to be prepared. *(Flemington resident, aged 33, originally from Ethiopia)*

In my original home in China, many floodings. Sometimes we're sleeping and don't know the water has come to my house and when we wake up, water already come to my waist. *(Brimbank resident, aged >55, originally from China)*

In Vietnam, I live in the city and one time the rain so heavy the water got halfway up the house. *(Avondale Heights resident, aged 43, originally from Vietnam)*

EXTREME COLD

Minus 28 degrees [Celsius]. It was very cold. You couldn't open the front door because it was all snowed out. So, before you could open the door, you had to dig the snow out and push it on the side. *(Brimbank resident, aged >65, originally from Poland)*

OTHER DISASTER EVENTS

Participants spoke of other events they associate with extreme weather, particularly earthquakes and tsunamis.

It was the first time and I was thinking, what is happening here? My father, he realised very quickly, the earthquake and he asked us to go out of the house. We couldn't stand, we were losing balance because of the earthquake. Quite near to my street, there were some high-rise buildings which collapsed. So many people died at the time. *(Truganina resident, aged 41, originally from India)*

When earthquake, we go under the bed. In China, the bed is higher and under the bed [there is much more] space. *(Brimbank resident, aged >55, originally from China)*

One time, I think 20 years ago when I work in the office, it just suddenly [started] shaking. *(Avondale Heights resident, aged 43, originally from Vietnam)*

The tsunami back home was happening in 2009 and that time, I was in high school. I still have memories of that. The whole of Samoa was locked down, no schools, everything. Even the electricity was down and the shops were closed. *(Footscray resident, aged 28, originally from Samoa)*



MELBOURNE: FOUR SEASONS IN ONE DAY

Some extreme weather events in Melbourne's West took participants by surprise. Some they had not experienced in their home countries. The world's view of Australia being a sunburnt country is often deceptive for those settling in Melbourne.

STORMS

We had in Altona Meadows such a storm that I never saw in my life. *(Altona Meadows resident, aged 82, originally from Romania)*

The dust storm, the asthma storm. *(Sunshine West resident, aged 72, originally from Malta)*



Thunderstorm with heavy rain in Moonee Valley, January 2023.

Source: Alice Cronin

RAIN & FLOODS

"Xita", rain in Maltese. *(Sunshine West resident, aged 72, originally from Malta)*

[In October 2022] the banks of the Werribee River were coming into residential streets, including the street that I was on. So, actually part of my street was part of the flood. The water was coming near the house. *(Werribee resident, aged 24, originally from Bulgaria)*

I live near a creek. The creek was overflowing onto the footpaths so we had water on our streets when Melbourne had the floods [in October 2022]. So it was a bit scary living in Altona Meadows because our creek became a river. It was huge. *(Altona Meadows resident, aged 43, originally from Somalia)*

Last November, this was about 50% covered in water. It's just big puddles of water for about 3 weeks. *(Sunshine West resident, aged 74, originally from Malta)*



Source: Walking interview with participant



Restaurant submerged, Maribyrnong River, Maribyrnong, October 2022.

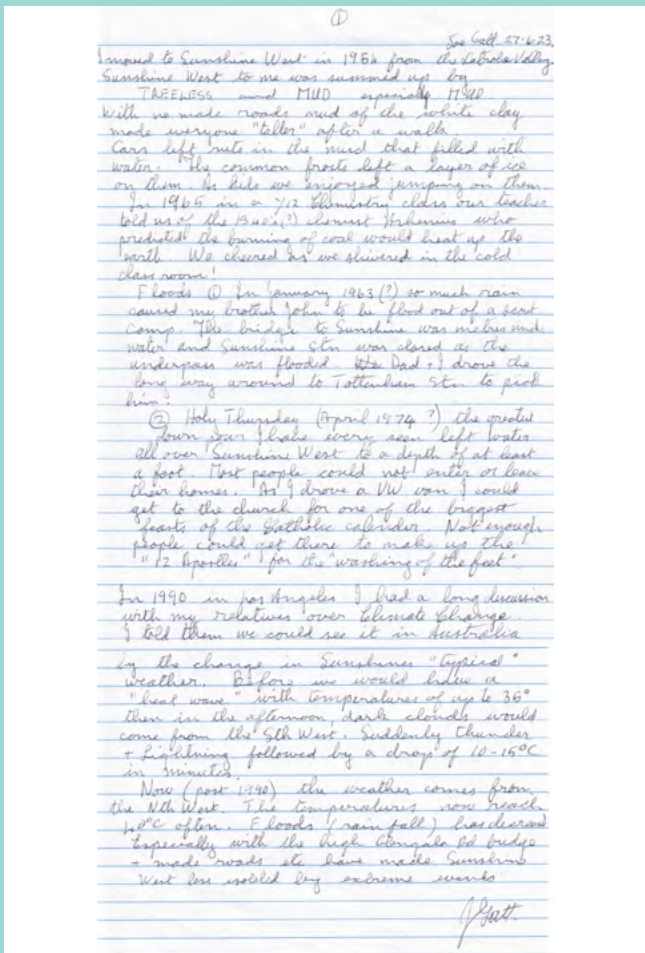
Source: ERIK ANDERSON/AAPIMAGE via Channel 7

I've seen [Kororoit Creek] flooded. When I was a kid, whenever it rained heavily, you'd come down and look at it because it'd always be flooded. Where the angle iron is attached to the concrete, it would get up to there. (Sunshine West resident, aged 74, originally from Malta)



Source: Walking interview with participant

Floods. The first one I remember was in January 1963. The bridge to Sunshine was metres under water and Sunshine station was closed as the underpass was flooded. The second one was Holy Thursday, 1974. The greatest downpour I have ever seen left water over, all over Sunshine West. Most people could not enter or leave their homes. A lot of people never got home that day. (Sunshine West resident, aged 74, originally from Malta)



HAIL

Snow from the sky. (Footscray resident, aged 28, originally from Samoa)

No one told me that it happens in Australia. I'd never seen the hailstorm before. (Truganina resident, aged 41, originally from India)



Hail. (Kensington resident, aged 68, originally from China)



Summer hail storm in Moonee Valley, January 2012.
Source: Alice Cronin

Hail stone. The big one, like a golf ball. (Maribyrnong resident, aged 74, originally from Hong Kong)

HEAVY WINDS

"Rih", wind in Maltese. (Sunshine West resident, aged 72, originally from Malta)

The cold winds. That for me is the thing that affects me the most out of all the weather conditions. (Ascot Vale resident, aged 26, originally from Indonesia)

I can feel the noise, the wind noise, passing through my house. (Truganina resident, aged 41, originally from India)

Our house gets really cold where we are because we're right in the wind stream from Antarctica. (Sunshine West resident, aged 80, originally from the UK)

EXTREME HEAT

“Shana”, heat in Maltese. (Sunshine West resident, aged 72, originally from Malta)

The hot, it's a bit different. It really feels like a hair dryer. (Ascot Vale resident, aged 26, originally from Indonesia)



Weather is so hot, make me feel like sweating like a drunken chicken. So, I wish the weather gets normal so life could be better for us. (Ascot Vale resident, aged 73, originally from China)



Braybrook resident, aged 75, originally from China



Maribyrnong resident, aged 80, originally from China

Night time's better, the night time but day time, so hot. It looks like, where you're cooking the bread, the oven. (Flemington resident, aged 33, originally from Ethiopia)

One of the worst ones for the old people was the heatwave of Black Saturday. It was just horrific. (Sunshine West resident, aged 74, originally from Malta)

PROJECTIONS OF VICTORIA'S WEATHER BY THE 2050S

Average annual temperature increase up to 2.4°C



Longer fire seasons, with up to 60% more very high fire danger days



Melbourne's climate could be more like Wangaratta's



Double the number of very hot days



Decline in alpine snowfall of 35-75%



Sea levels will rise by around 24 cm



Decline in cool season rainfall



More intense downpours



Source: Victoria's Climate Science Report 2019. Department of Environment, Land, Water and Planning

EMOTIONS & EXTREME WEATHER EVENTS

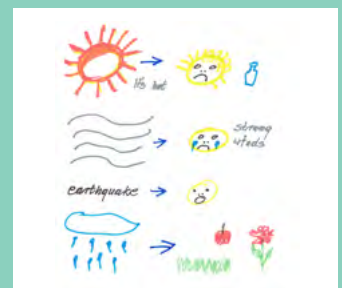
The experience of extreme weather events can arouse strong emotions, including distress and fear. These are the emotions participants described when they thought about extreme weather events.

MENTAL HEALTH-RELATED IMPACTS OF EXTREME WEATHER

Climate related disasters and extreme weather affects mental health. One survey found that over half (51%) of Australians are “very worried” or “fairly worried” about extreme weather events. The main impacts are anxiety (73%) and depression (49%). Only 11% of people reported feeling prepared for the next disaster (Climate Council, 2023).

This psychological distress caused by climate change and its effects is known as ‘eco-anxiety’ and is becoming a key issue for individuals and communities (City of Melbourne, 2020).

One participant drew the emotions they experienced during different types of events. (Sunshine resident, aged 67, originally from Poland)



depressing
worried
stressed
scared
afraid
distress
nervous
scary
isolated
anxious
difficult
control
bad
sad
terrific
annoyed
unhappy
depressed
apprehensive
unpleasant

WEATHER WOES: HEALTH IMPACTS OF EXTREME WEATHER

“Climate change is impacting health in a myriad of ways, including by leading to death and illness from increasingly frequent extreme weather events, such as heatwaves, storms and floods.” *(World Health Organisation, 2023)*

UNPREPARED FOR THE EXTREMES

When we arrived in Melbourne, we were on a beach and I was pregnant and my legs got burnt. The sun is very dangerous in Melbourne. I burnt myself twice without getting undressed. My legs were swelling up and I will never forget that. *(St Albans resident, aged 84, originally from Egypt)*

In Melbourne, we go to the beach, everyone go home burnt, skin burn and it make my skin itchy and all red. So, I have to go and see doctor after I go to the beach. Now I'm scared so every time I go, even 28 degrees, I still have to put sun cream. So strong, the sun in Australia, really strong. Extremely strong. *(Avondale Heights resident, aged 43, originally from Vietnam)*

The sun is different, it's really hot, it's burning the skin. *(St Albans resident, aged 69, originally from Sudan)*

The first time I experienced the summer, I couldn't even breathe. *(Footscray resident, aged 28, originally from Samoa)*

The house that I was living was very hot during the summer. For example, if the weather is 40, inside it's like a similar degree. I remember one day, it was very hard to breathe. *(St Albans resident, aged 26, originally from Vietnam)*

EXISTING HEALTH CONDITIONS ARE WORSE

I have problem with my heart. In hot weather, still I feel terrible. I can't breathe and changed weather I have headache, I can't sleep well and is trouble. I can't breathe, I don't have much air to breathe. Sometimes hot weather is terrible for me. *(Altona Meadows resident, aged 87, originally from Poland)*

Winter is terrible because the cold affects you, arthritis. *(Williamstown resident, aged 79, originally from Poland)*

Spring, I suffer with hay fever. My bad days are when it's a really strong windy day. *(Sunshine West resident, aged 77, originally from Malta)*

I personally suffer from migraines. So when we have extreme warm one day and then cold the next day, that does mess up with my sinuses and I'm out of work for a day or two. Unfortunately for me, I get sick with that fast weather change. *(Altona Meadows resident, aged 43, originally from Somalia)*

NEW HEALTH CONDITIONS ARE EXPERIENCED

The crazy weather in Melbourne, especially its sudden changes. You know, like today is 40 and then the next hour is 15. It affects me extremely, you know. I get hay fever, north wind gives me bad hay fever, spring is very bad for me, which I never experienced in my country, in Poland, you know. It's crazy and arthritis. It's going to rain tomorrow, today I will have very bad night, I won't sleep because my bones will ache and everything and next day is raining and wind and everything. This weather affects me terribly. *(Essendon resident, aged 76, originally from Poland)*

The thunderstorm on the hot day, too much and we can't breathe. *(Wyndham resident, aged >55, originally from India)*



Thunderstorm over Melbourne Source: Herald Sun

I'd never had asthma[before] and I put it down to allergies because that's when it happened, when the weather changed so quickly that I became, I couldn't breathe. I had to go on the ventilator. (Sunshine West resident, aged 73, originally from Malta)

When the weather is changing, changing patterns, it affects me and then I'm having headaches, and blood pressure is going up and down. (Sunshine West resident, aged 78, originally from Poland)

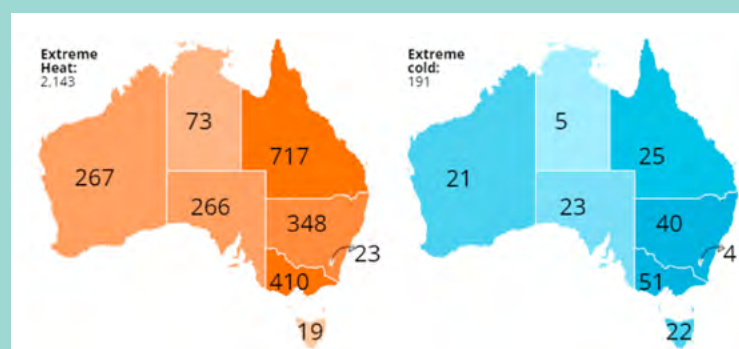
I get chilblains, which is the first country in the world that I get chilblains. It's that fluctuation of temperature from cold to hot too quickly and then I get chilblains. (Ascot Vale resident, aged 26, originally from Indonesia)

Joint pain, severe joint pain must be due to cold. (Wyndham resident, aged >55, originally from India)

Going into the garden after that [flood], in evening, not was flooded but many mosquitos there because of the moisture. (Brimbank resident, aged >65, originally from Poland)

FUTURE HEALTH IMPACTS OF EXTREME WEATHER

In the period 2019-20 to 2021-22, almost 1 in 5 hospitalisations due to extreme weather occurred in Victoria. During this period, Victoria had the highest number due to extreme cold and the second highest number as a result of extreme heat (AIHW, 2023).



Source: National Hospital Morbidity Database

Deaths due to extreme heat tend to peak during El Niño events. Since 2000, these deaths have largely occurred during heatwaves in Victoria and South Australia (Coates et al., 2022). With El Niño predicted for this summer, injuries and deaths due to extreme heat are likely to increase. The Climate Council (2016) predicts heatwaves could cause hundreds of additional deaths annually in Australia by 2050.

With more intense downpours predicted for Victoria (DELWP, 2019), the state could see more flooding events. This may result in an increase in the numbers of mosquitoes present, which in turn increases the risk of mosquito-borne diseases such as Ross River Virus and Japanese Encephalitis (CSIRO, 2021).

People living in southern Australia have been warned to prepare for possible thunderstorm asthma in the coming months. With grass pollen season being longer than usual, the risk of harm from thunderstorm asthma is increased, particularly for hay fever sufferers (Davies et al., 2023).

Coates, L., van Leeuwen, J., Browning, S., Gissing, A., Bratchell, J., & Avci, A. (2022). Heatwave fatalities in Australia, 2001-2018: An analysis of coronial records, *International Journal of Disaster Risk Reduction*, 67, January, 102671, <https://doi.org/10.1016/j.ijdr.2021.102671>

Commonwealth Scientific and Industrial Research Organisation. (2021). *Floods and mosquito-borne disease*.

Davies, J., Douglass, J., & Lee, J. (2023). We could see thunderstorm asthma in south-eastern Australia this season – here's how to prepare. *The Conversation*. 30 October.

Department of Environment, Land, Water and Planning. (2019). *Victoria's Climate Science Report 2019*. State of Victoria, Melbourne.

DAMAGE & DESTRUCTION: ECONOMIC & EMOTIONAL COSTS

Participants described the damaging effects that extreme weather has on homes and property. Such damage causes disruption to their lives, financial concerns and insurance issues.

DAMAGE TO HOMES

Kilka lat temu, u nas było bardzo wielki
zwalone dach z werandy.
Silne wiatry i opady są niepokojące.
Wł. zewnątrz domu, po białym
suficie zostało zalane.
Miałam dwie problemy z
insurance. Bardzo długo
upływało czasu, i dużo
nerwowo.
Too much stress.
Concerns about electricity
i gas prices.
Hot weather not conditioner.
Cold weather not good
for asthma. Rain
isolation
feeling sad.

A few years back, the veranda roof was blown off and last year, I had some leaking in my ceiling and that caused a lot of stress because dealing with the insurance. (Williamstown resident, aged 79, originally from Poland)

The strong winds and the storms caused damage to the house and that was very distressing. (Sunshine West resident, aged 75, originally from India)

There was a wind event three years ago, which cracked the ceiling of my kitchen. (Sunshine West resident, aged 74, originally from Malta)

The bad experience, one of the rain, made the water leak from my house, from kitchen, from the living room. Water made the paint bubble. (Caroline Springs resident, aged 64, originally from Hong Kong)

I experience water leaking in my house during heavy rain especially in the garage. It's quite severe. The whole area becomes damp.

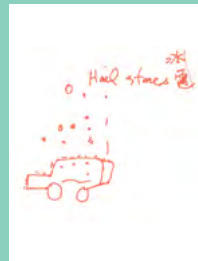
– Translated from Cantonese (Brimbank resident, aged >55, originally from China)

We had the roof of the veranda smashed in. That [hail storm] was an extreme weather event, which we'd never experienced ever before. (Sunshine West resident, aged 72, originally from Malta)

DAMAGE TO CARS

We had in Altona Meadows such a storm that I never saw in my life. I drove against the weather and that's when I lost my front bumper. (Altona Meadows resident, aged 82, originally from Romania)

When we drove home, [the rain was] so heavy that, when we got home, we realised that the number plate of



my car got washed off on the road. It was scary. Then after it finished, we drove around to try and find the number plate and it kind of got washed up. So that's probably one of the most extreme events. (Altona resident, aged 38, originally from Vietnam)

With that hail, I had two cars damaged. (Sunshine West resident, aged 80, originally from Malta)

You know the hail, hail stone that damage the car. The cars were a write-off. It costs too much to repair. (Maribyrnong resident, aged 74, originally from Hong Kong)

DAMAGE TO NEIGHBOURHOODS

Because of the strong winds, we have trees in front of our flats and when I walked outside there were a lot of small branches. The landlord came here last year and they cut the trees so they don't hit someone. They've cut down a lot of trees. (Footscray resident, aged 28, originally from Samoa)



Cracked fence as a result of weather extremes.

So it rains, the clay moves. Dries, the clay moves. Backwards and forwards, backwards and forwards. (Sunshine West resident, aged 74, originally from Malta)

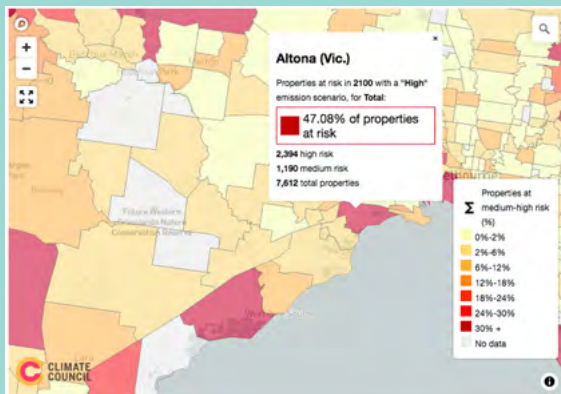
Source: Walking interview with participant

FUTURE PROPERTY & NEIGHBOURHOOD RISKS

This interactive map indicates areas most vulnerable to extreme weather events (see, for example, Altona and Maribyrnong in Melbourne's West).

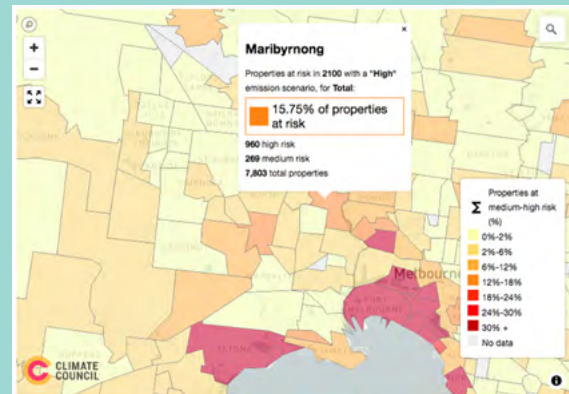


To view the risk for your area, visit the Climate Council website and search 'Climate Risk Map' or scan the QR code.



Percentage of properties at risk in Altona, Hobsons Bay.

Source: Climate Council, Climate Risk Map



Percentage of properties at risk in Maribyrnong, Maribyrnong.

Source: Climate Council, Climate Risk Map

Extreme weather and the challenges of home and contents insurance:



1. Complex product design

- Inconsistent and incomparable definitions for standard terms;
- Deviations from standard cover;
- Lack of transparency in pricing.

Policies need to be simpler and fairer for people facing the threat of extreme weather.



2. Increasingly unaffordable premiums

Many households on low incomes are being priced out of the insurance market entirely. This contributes to a disaster-induced poverty cycle.



3. Inaccessible information on natural hazard risk

Inconsistent and inaccessible information is preventing people from making empowered decisions about how to protect themselves and their home.



4. Mitigation measures

Lower premiums for taking mitigation measures to make their home more resilient should be offered. Clear and accessible information on measures people can take to lower their risk should be provided.



5. Dangerously exposed housing needs solutions beyond insurance

Regions of Australia are becoming increasingly uninsurable and unsafe to live. Communities and homes on the front line of disaster are likely to require solutions beyond insurance, including relocation.

Climate Council. (2023). *Weathering the storm: Insurance in a changing climate.*

EVERYDAY CHALLENGES OF EXTREME WEATHER

Participants described the challenges they experience as a result of extreme weather. For many, disruptions to everyday routines and enjoyable activities, along with the exorbitant cost of heating and cooling their homes, are common experiences.

MANAGING EVERYDAY ACTIVITIES

That's the worst because you can't keep cool all the time. You need shopping, you have appointment, you put the kids in school, you pick up and the heat is sometimes very dangerous. And the news always say be careful, don't go outside, keep cool. But you can't all the time keep it cool. When the heat is really hot, sometimes you can't drive the car. You scared of the car going on fire, so I'm using the transport. When the weather is hot, I don't drive, too scary. *(Flemington resident, aged 33, originally from Ethiopia)*

[Flooding] happens here. We have to take a longer route to reach our home. So flooding is a serious problem. *(Wyndham resident, aged >55, originally from India)*



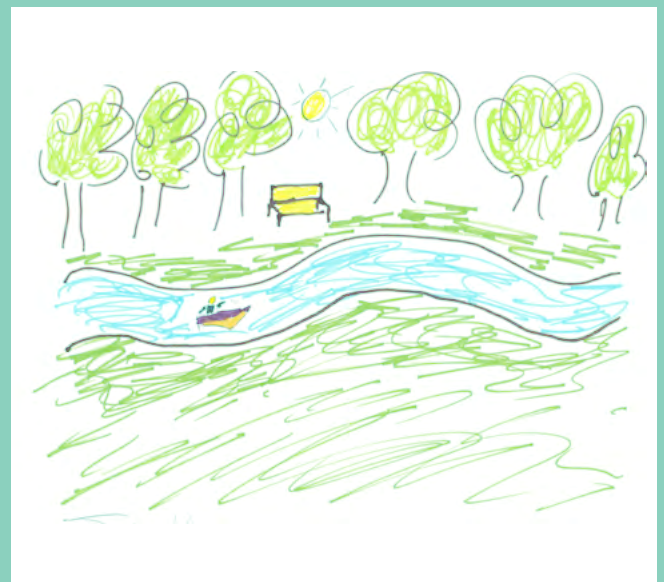
Road in Maribyrnong cut off by flood water.
Source: David Crosling via news.com.au, October 2022

Flooding and the council not aware. It's okay for people who are driving but when you try to walk to the train station, it's a problem. It's a major problem whenever it rains. The surface of the road is also uneven. It's bad. Just fix the road so that we don't have to suffer during heavy rain. *Translated from Cantonese (Brimbank resident, aged >55, originally from China)*

I don't have a car. I always use the public transport. So I have to walk like three minutes to the bus stop. So with the use of the umbrella, it's not safe because of the strong winds. My umbrella was broke. *(Footscray resident, aged 28, originally from Samoa)*

I take the bus. It is more difficult for people who don't have a car like myself. *Translated from Cantonese (Brimbank resident, aged >55, originally from China)*

Storms and those extreme rainfall and wind, I don't find pleasant. So I just avoid outdoors totally. I cancel my social events, I cancel everything and I try avoid driving because of the visual problems. It's hard to visualise things. *(Maidstone resident, aged 38, originally from Iran)*



When it's a nice sunny day, I would love to go [to the river] but now [the river] is a bit polluted because of the floods so I can't go fishing now to get any fish. *(Essendon resident, aged 73, originally from Malta)*

THE COST OF HEATING & COOLING

You've got to think about these things. You don't want to spend money on air conditioning. It's going to cost you an arm and a leg if you try air conditioning your whole house. *(Sunshine West resident, aged 74, originally from Malta)*

Cooling is expensive and for the pensioners and even a young family who can't afford too much electricity bills, gas bills. They go out and they take their kids to play centres for the morning, the best of the heat, morning or afternoon. They're out and saving on their electricity bill and gas bill. *(Sunshine West resident, aged 72, originally from Malta)*

NAVIGATING SUPPORT & HELP

I don't even know where to find help. Even if I do, I don't know how or what to say. *Translated from Cantonese (Brimbank resident, aged >55, originally from China)*

I think people from CALD backgrounds are kind of vulnerable when left out because not everyone can know what sort of support available, compared to people raised here from young who just straight away know through the parents and through what the parents normally do. But for us, we need to check, we need to find information from the right resources and sometimes it's not easy to find. *(St Albans resident, aged 26, originally from Vietnam)*

I have tried calling [the council] but they told me that it had nothing to do with them. Very unhelpful. No point reaching out to them." *Translated from Cantonese (Brimbank resident, aged >55, originally from China)*

Looking at the CALD perspective and because I have lived in Australia for a long time and I came here to do my study and also my husband. But for all the women from different CALD backgrounds or if their husband is from the same country and came at the same time, they might not know as much. So, I don't know the solutions. *(Altona resident, aged 38, originally from Vietnam)*

TYPE OF HOUSING MATTERS

Sometimes if you use the air conditioner, you worry like how much money, you're gonna get the bills coming. Everyone, they worry the expense of electricity and they can't use a lot. The nighttime, they all go to the park. All night, they stay in the park because it's very hot. High rise is more hot than a house. Some people, they sleep there. *(Flemington resident, aged 33, originally from Ethiopia)*



Flemington public housing towers and adjacent park.

Source: Alice Cronin

The lack of air conditioning in Melbourne's public housing towers is a recurring problem. The structure of these high rise buildings, combined with uninsulated concrete and lack of adequate maintenance, leaves residents sweltering through unbearable heat with little respite.

The Victorian Government has promised to invest \$141 million to install air conditioners into over 40 of Melbourne's public housing towers. The purpose of this is to "make life more comfortable for tenants and improve their health and wellbeing particularly over summer". For residents in many public housing towers, including Flemington, this has not yet been achieved. With an El Niño event formally declared for summer 2023, residents sleeping in parks may become more common, leaving them exposed to the weather and to numerous health and safety risks.

RED SKY AT NIGHT, SHEPHERD'S DELIGHT

Participants discussed how they cope with, and predict, the weather, with practices often passed down from generation to generation, learnt from older generations in their countries of origin. Many practices are continued to this day.

CULTURAL WISDOM

Back home, we have coconut oil. You can rub it on your feet and your chest. It helps you stay warm. Our grandparents back home always used that on us when we were young. Also we use the candles, those warm candles. We light it up and it makes the room warm. That's another way of coping in cold weather. (Footscray resident, aged 28, originally from Samoa)



Source: I am a food blog

Stay at home and drink hot water, boiling water. Also, hot pot food. The Chinese hot pot food, to keep warm. (Brimbank resident, aged >55, originally from China)

Ginger soup with the egg, a fried egg with the ginger. With the pig knuckle. Make you very hot, that one. (Brimbank resident, aged >55, originally from China)



Source: Adobe stock



Source: Dumpling Connection blog

Ginger tea is good for the flu season. When you get the flu, you drink some ginger tea. Make you hot and the flu is gone. (Brimbank resident, aged >55, originally from China)

Before go to bed, the ginger peel, skin, don't throw away. That's very good. You boil, do the foot massage, dip your foot in the ginger water and when you go to bed, very warm, whole body. (Caroline Springs resident, aged 64, originally from Hong Kong)



The chrysanthemum tea reduces your body heat. Translated from Cantonese (Brimbank resident, aged >55, originally from China)

Source: Dumpling Connection blog

PREDICTING THE WEATHER

I remember when I was a little girl in Poland and there was no radio, no TV because I was born in '46 and my mother used to tell me what the weather will be next day by looking at the sunset. They look, if it's a nice sun going down, sunset you know, and there is a clear sky, nice pink-ish, that will be nice weather next day. No clouds, there will be no clouds, sunny day tomorrow. Things like that. And if there was a little bit of cloud, oh there will be little bit cloudy, you know. And if it's dark or cloudy, no sun at all, oh tomorrow no sun, there might be rain, this and that. I do this with my granddaughter, she is eight now. I try to explain to her these things, some information when I used to grow up, with nothing to go back to, only my mother's telling me. (Essendon resident, aged 76, originally from Poland)

I sometimes look into the sky. That's how I learn in Malta. Sometimes I'm looking how the sun is or how it's going down. Is it red or anything like that? Or sometimes even my wife says, "Oh look, tomorrow is gonna rain, there's cloud coming, it's gonna rain". (Sunshine West resident, aged 80, originally from Malta)



Red night, shepherd's delight. Red morning, shepherd's warning. (Sunshine West resident, aged 74, originally from Malta)

Red sunset.

Source: Royal Meteorological Society

WEATHERING THE STORM: INDIVIDUAL STRATEGIES DURING EXTREME WEATHER

Participants talked about how they manage during extreme weather events. Extreme weather requires doing things differently to manage at home and may include seeking respite from the weather elsewhere in the community.

PERSONAL STRATEGIES

Drinking a lot of water. (*Brimbank resident, , aged >65, originally from Poland*)

During the hot day, I eat more veggies and drink a lot of water, and wear light clothes to make sure that it's not too hot. (*St Albans resident, aged 26, originally from Vietnam*)

In summer, it's so hot, I have a long shower. (*Taylors Lakes resident, aged 82, originally from Malta*)

Put more clothes on and when you watching TV, you put the blanket on you to get yourself warm. (*Maribyrnong resident, aged 74, originally from Hong Kong*)

For me, you don't have to have the heater. At the best of times, I have two pairs of socks. (*Sunshine West resident, aged 72, originally from Malta*)

I wouldn't know how to dress up so you have to have another set of clothes in your bag. (*St Albans resident, aged 84, originally from Egypt*)

I don't go out as much if I don't need to. I have heater on if I need to and just kind of be cozy inside and avoid going out. (*Altona resident, aged 38, originally from Vietnam*)

I just stay around the house and I find it a bit difficult for me when the weather's cold because, if you want to go somewhere, you have to wear a lot of clothes. I usually wear a lot. It makes my body so heavy when I walk. (*Avondale Heights resident, aged 43, originally from Vietnam*)

We use sunscreen. Hat is also must. We have covered the long clothes. We do changes like, we start our walk very early in the morning so it doesn't affect because after nine or even ten, the sun is so hot. One thing is good in this country what I've seen, that if you're in the shade, you don't feel that hot. (*Wyndham resident, aged >50, originally from India*)

We are keeping umbrellas and raincoats in our car always. (*Wyndham resident, aged >55, originally from India*)

To stay safe, if it was something really extreme, I'd probably notify my friends that I was going out or what was going on just so they knew my situation. (*Werribee resident, aged 24, originally from Bulgaria*)

Sometimes I can say I'm off for work if the weather too dangerous. I never drive under the very strong wind and rain. It's kind of a horrible experience to drive under rain itself. It's kind of dangerous. (*St Albans resident, aged 26, originally from Vietnam*)

Even the mask on. Even if it's not strict on the mask, you can wear it to protect your skin from the cold and hay fever. You can protect yourself [from] the pollen. (*Hillside resident, aged >45, originally from Vietnam*)

When it's cloudy, it's rainy, it's windy, you don't know what to do with yourself. You can't go out and you feel like you can't go out. But lucky myself, I find music is very good for me. I like singing so I do a lot of singing at home. You just feel like, what am I gonna do? I can't go out, I can't water the garden, I can't go out to the garage, it's too cold to do something in the garage. In here, I'm just sitting by the fireplace and watching YouTube. I like documentaries. That's what I do and sing, too. (*Essendon resident, aged 73, originally from Malta*)



STRATEGIES AT HOME

[In case you need to stay at home because of the weather] buy the extra supplies, pasta, rice, potatoes, cabbage, in the jars. Always have full pantry. (Essendon resident, aged 76, originally from Poland)

When I know it's gonna be cold for the next week or it's gonna be raining, I do big shop, I make sure that, I've got enough milk and the basics and then I just stock the fridge and freezer enough for a week. I don't have to go out for anything except what I need to do but I prepare because I rely on vegetables and the staples and then I know I don't need to go out. I can keep myself busy at home. (Sunshine West resident, aged 72, originally from Malta)

I stay inside and put the air conditioner on and don't put my nose outside, that's it. I just keep the windows dark, closed down, all the cupboards and everything. (Essendon resident, aged 76, originally from Poland)

We bought some smaller heaters just to heat when we're there in the room. (Sunshine West resident, aged 80, originally from the UK)

We keep our house comfortable with [air conditioners], fan or central cooling. So of course, they cost us but you can't avoid all these things. (Wyndham resident, aged >55, originally from India)

Use fan more. We open the door, then we can balance it to relieve the warm outside. Otherwise, if we close, then at night it's still hot. (St Albans resident, aged 26, originally from Vietnam)

One of my cousins bought the swimming pool, the small swimming pool. Then we filled it with cold water and we put our feet in it. (Footscray resident, aged 28, originally from Samoa)

[During the Black Saturday heatwave] we just got inside, locked all the windows, put all the shutters down. If you had air conditioning, you put it on and you just didn't go outside. It was just horrific. (Sunshine West resident, aged 74, originally from Malta)

When it's really hot here, you have to touch your hands on the ground for a couple of seconds to make sure before you walk your dog. If it's really hot, I will have to do that to make sure, because we wear shoes. So, I make sure, if there is a heatwave, that she will have more water, make sure that she's well. (Altona resident, aged 38, originally from Vietnam)



That day, the temperature 40 degrees so I stay at home. So, I turn on the air con and also put some water to face the roof to make the temperature come down. (Caroline Springs resident, aged 64, originally from Hong Kong)

I've got plenty of plants inside my house and I water them. So that keeps the area cool inside. (Truganina resident, aged 41, originally from India)

I've got shrubs on my western side to keep the western sun from baking my house and I've got trees on the south side, which cut the south wind a little bit, which always helps keeps the cold away. (Sunshine West resident, aged 74, originally from Malta)

During heavy winds/storms] we get some heavy stuff to put on the light stuff, so make it not fly away. (Braybrook resident, aged 75, originally from Vietnam)

I clear the sewage of tree leaves and some rubbish. They cause blockage of the sewage. (Brimbank resident, aged >55, originally from China)



PLACES TO ESCAPE EXTREME WEATHER

I go to the swimming pool or some beach or salt water. The sea water is lower temperature. *(Caroline Springs resident, aged 64, originally from Hong Kong)*

For the kids, they like swimming or shopping centre. There's cool air in there. *(Hillside resident, aged >45, originally from Vietnam)*

We try to go to beach and swim, take time there as Aussies do. Then we try to sit under deck plants so that we get some fresh air and we get relieved from the heat. Bath, we try to take bath in the evening during summer vacations. *(Tarneit resident, aged 79, originally from India)*

[One extremely hot day] I went to Highpoint and watched a movie in the air conditioning to stay cool. *(Sunshine West resident, aged 72, originally from Malta)*

I can stay in the shopping centre, get all the air conditioning. Save money. *(Maribyrnong resident, aged 74, originally from Hong Kong)*

When strong wind or some extreme weather, when I'm not at home, I go to the shopping centre. *(Brimbank resident, aged >55, originally from China)*

We had extremely hot days during the summer. We didn't have air conditioning and it was really difficult. I was not able to stay in my room, I had to get out and just go to shopping centre or just drive around with my air con on. I avoid outdoor activities. I'm a hiker, I hike a lot. I avoid those activities. I avoid cooking so I don't spend much time in the kitchen. *(Maidstone resident, aged 38, originally from Iran)*

ACCESSING WEATHER INFORMATION

It's like, mobile application that I use. *(Truganina resident, aged 41, originally from India)*

It tells me on my phone [app] and I work around that. *(Sunshine West resident, aged 72, originally from Malta)*

We can find it on the phone but I don't know how to read it. Translated from Cantonese *(Brimbank resident, aged >55, originally from China)*

I get it from the ABC in the morning. *(Sunshine West resident, aged 74, originally from Malta)*

We usually get information from the radio, from the television. Translated from Cantonese *(Brimbank resident, aged >55, originally from China)*

I just check that government Bureau [of Meteorology]. *(Maidstone resident, aged 38, originally from Iran)*

We have a Facebook local group, where people will, someone will share that there's a problem and be like, "oh did you guys hear that or in that area, we heard this, we see that" So, maybe [we will check] if there is extreme weather and we will see if some people have a solution already. *(Altona resident, aged 38, originally Vietnam)*

I know there are some apps, like for asthma, if thunder, we got more pollen. I find it quite useful because I know if the level of pollen is higher than the other day. It's very handy because it provides notification as well, if the pollen is a bit higher than average. I know some people never watch the news and I'm one of them. *(St Albans resident, aged 26, originally from Vietnam)*



IT TAKES A VILLAGE



For many participants, communities must support each other during extreme events. They were concerned about those most vulnerable getting the supports they need during such times. Supporting each other was something they experienced in their countries of origin and were keen to replicate in Australia.

[Following the 2009 tsunami in Samoa] I remember now, we helped my grandmother's side. I had to bag my clothes as well to give it to them so that's what we give them. We give them donations as well. We also provide kitchen supplies like pots, cups, plates, for them to eat. I heard some people were interviewed that they were well-supported by so many people, that they didn't even know them but there were a lot of people supporting. That's the beauty of our Samoan culture. Even though you don't know that person but we have that connection in our culture, spiritual. We are the most Christian people back home. I think that's another way of giving them support is through the spiritual side of it. *(Footscray resident, aged 28, originally from Samoa)*

In the middle of [Vietnam], growing up, hurricanes hit every year. In school they say, okay we need to collect donations in clothes and stuff to send it to the middle. So, I'm aware of it at a young age. Mainstream Australia could have learned something from those CALD groups. They just flow, we call it "fluid volunteer". The Sikh community are doing amazing at that. Sometimes you worry about the volunteers but actually they're thriving. They're already supporting each other. So, maybe learn from each other. *(Altona resident, aged 38, originally from Vietnam)*

We need more facilities, for the people to use air conditioners. Some buildings, they have a community room. The people come down the stairs, some people sick, some people are in pain or some people they have cancer, some people they have diabetes, blood pressure, getting old. Sometimes they can't go anywhere. Maybe it's better to come down and they get better, have coffee and sit down and talk to each other. Just to relax and keep cool. That would be better. *(Flemington resident, aged 33, originally from Ethiopia)*

I have a neighbour whose adult daughter is severely disabled. They live in social housing, a small unit with a very low roof. She has only a very old air conditioner that she put in herself that really doesn't work properly. I tried to get some help for her and an air conditioner because

she couldn't afford one. *(Sunshine West resident, aged 80, originally from the UK)*

I will tell my parents whatever I know is safe for them. I will tell my friends, my family members. Even now, I tell my uncle and aunt, they plan to go to Vietnam for a holiday. If I knew something over there is not right, I tell them better to cancel. *(Hillside resident, aged >45, originally from Vietnam)*

The big problem is people who need help are usually the ones who don't have the information, who don't have the education, who don't have the language and they can't tell people what their needs are. So, the people around them – us – who would be prepared to help, we just don't know about them. The problem is in-built in the fact that the poor are also the uneducated, also the ones who haven't got the language, also the ones who've got a disability, also the ones who've got this, that and the other and the reason why they don't get help is because they don't know how to look for it and the people that can give it can't go around knocking on doors, they can't do it. *(Sunshine West resident, aged 74, originally from Malta)*

The 2022 flood was very sad in some ways because I used to see playgrounds under the water, kids are not out and about. Some community members had lost their house and they had to deal with the insurance and not much help can be provided. It's just my thoughts on social issues and community issues. Those are my main concerns in those times. *(Maidstone resident, aged 38, originally from Iran)*

If I am the elderly people, of course I need to evacuate before. If I have a disability, it's a bit hard to walk, it's a bit hard to run. So, you have a plan for those people. Even the children with disabilities. You have to plan for those people. *(Hillside resident, aged >45, originally from Vietnam)*

I just know the damage that flooding can cause and I just know communities need support. So, whenever there's flooding, I'll try my best to support the communities that are close to me. You'd just go up to them and say, "Hi, I'm seeing that there's something. Is there anything I can do to help?" I think that's the most proactive you could do as what happens, because you're the first affected so you want to help people around you and I think that's the first action that people take. Most first responders are actually the community affected. So, it's going to be neighbours, friends, colleagues that are living in the area that will act first. *(Ascot Vale resident, aged 26, originally from Indonesia)*

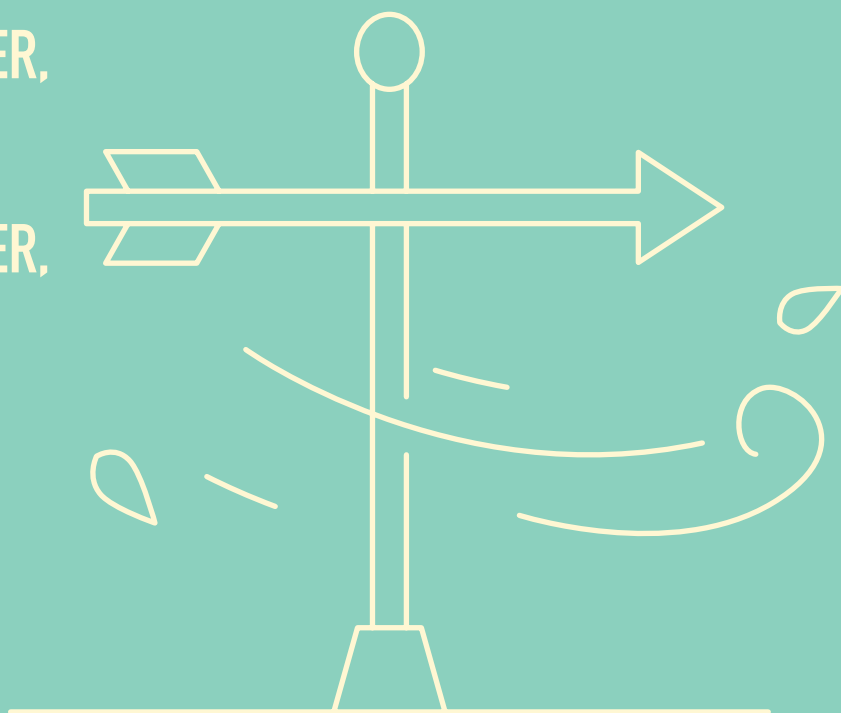
AS THE WATER RISES HIGHER,
SO DOES TERROR,
SO DOES FEAR.

AS THE WATER RISES HIGHER,
SO DOES KINDNESS,
SO DOES LOVE.

AS THE WATER RISES HIGHER,
SO DOES COURAGE,
SO DOES GUTS.

AS THE WATER RISES HIGHER,
SO DOES MATESHIP,
SO DOES HOPE.

(Anonymous)



Locals helping emergency workers and soldiers to fill sandbags during a flood event

Source: David Crosling via Herald Sun, October 2022

PLANNING FOR, & RESPONDING TO, EXTREME WEATHER EVENTS

Experiencing an extreme weather event can be more distressing if the right support is not in place. Some participants know what they need to do during events and what supports are available in their local area. However, many are unaware of what is available and/or don't have appropriate access to it. Participants also know where the gaps are and have practical solutions.

ABOUT SUPPORT IN THE WEST

[The government] gives advice to stay home to the seniors, especially when there is huge wind or something, especially to patients having breathing problem. The government is doing a wonderful job. They can't do anything against nature. *(Wyndham resident, aged >55, originally from India)*

A lot of the time [the local Facebook group is] a good one and there is a mayor who is very active and people like tagging her on things and she will reply. So, seeing that she participates and is aware of what people need, I have confidence in that. *(Altona resident, aged 38, originally from Vietnam)*

The government's good, they've got plenty of support. But it's just ourselves. We don't want to give a burden to anybody. Just keep quiet. *(Ascot Vale resident, aged 73, originally from China)*

[During the 2022 flooding event] they were updating us, coming up to the house. The SES, to tell us if we needed to evacuate or anything. Because we were being updated, it kind of felt like they knew what was going to happen next. *(Werribee resident, aged 24, originally from Bulgaria)*

HOW TO SUPPORT

(Sunshine West resident, aged 80, originally from the UK)



Sometimes government, big organisations don't consider what the community already have. The community are very agile and also connected. So, I think you have to work together. Maybe the solution could have already been at the community. People in times of chaos, they might already have that flow of information. I feel, if something happens, I will go to that community group first before I look at the council site. That group actually very active. *(Altona resident, aged 38, originally from Vietnam)*

No, I don't see [local supports] around our areas. Maybe we don't know where. How can we look for that if something happens? If it's really needed, then they will set up something but then we don't know where. If you need any emergency or something about the weather, what should we do? *(Avondale Heights resident, aged 43, originally from Vietnam)*

We don't know of any places, no. I don't think there is any around. *(Essendon resident, aged 76, originally from Poland)*

We live right next to the beach, so who knows. Maybe if there is a contingency plan that the government or the local council might have in this area, if there is anything like that. It would be good to know if they have that or if they have stocking food or something just in case they prepare in advance so that they can say to these people, we have a few preparations. Hopefully don't have to but if you do, you can have a safe place to go. *(Altona resident, aged 38, originally from Vietnam)*

At university during the orientation, they talked about how to be safe on campus. But I think maybe extreme weather should be added as well. *(St Albans resident, aged 26, originally from Vietnam)*

I would like for [the government] to support us through food support, food items. Because during that time, we won't be able to go to the supermarket to buy food. Maybe more clothing, some people might need. Also maybe shelter, set up a shelter for those people living in those areas. For example during flooding, for them to move into just for some time, a safe place. [Getting to the shops] was hard for me. And especially for us, we don't have cars. Some people use the public transport so I think for them, to provide daily convenience groceries. *(Footscray resident, aged 28, originally from Samoa)*

It would be nice if there was outside help in times like that. Someone checking, keeping in touch with these people. A telephone call or something to check on you, if you're still alive, knowing that someone cares. *(Essendon resident, aged 76, originally from Poland)*

We're going to need more facilities for the people, to use air conditioner, like a community room. Just to relax and keep cool. *(Flemington resident, aged 33, originally from Ethiopia)*

I need to feel safe, I need to. I need my routine to be ongoing with the least disruption as possible. *(Maidstone resident, aged 38, originally from Iran)*

A CALL TO ACTION

Australia's stunning natural environment flourishes with vibrant flowers and lush greenery. The leaves gracefully kiss the earth, contributing to its fertility through their symbiotic relationship.

Throughout the seasons of winter, spring, summer, and autumn, as humans adapt to the fast-paced modern lifestyle, they often watch with tears in their eyes. They lament the changing seasons and the environmental challenges that nature faces due to human actions aimed at progress and development.

The impact of factors like traffic emissions and industrial activities exacerbates the unintended consequences of human technology, including electric vehicles, which, in some cases, prove more environmentally taxing than initially anticipated.

In light of this, it's crucial to contemplate the future and emphasise the importance of minimising waste in every aspect of life, from food to clothing.

Together, we can join forces with a shared commitment to happiness under one sky. By working together to create a brighter future, we can ensure that the upcoming generations have the opportunity to experience joy and harmony.

(Hoppers Crossing resident, aged 76, originally from Sri Lanka)

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THE ROLE OF LOCAL GOVERNMENT

In Victoria, local governments must act on climate change adaptation. The Climate Change Act 2017 (Vic) requires local governments “to support vulnerable communities and promote social justice and intergenerational equity”. The Local Government Act 2020 (Vic) specifies local governments must “promote the economic, social and environmental sustainability of the municipal district, including mitigation and planning for climate change risks” (DELWP, 2020).

The thing is, the council, they should have a plan. All the council, all the community, they should have the plan already. (Hillside resident, aged >45, originally from Vietnam)

[Councils] could get the information out to the groups. So, it would be up to [community leaders] to do the rest of it because there is always someone standing behind every group. So, the council should be more connected because they’ve got the help and they’ve got money I suppose. Find a way to let us learn what they offer because they probably could offer a lot of things to group like ours, send some people, tell us about things. There’s lots of resources and we don’t know how to get to it. (Essendon resident, aged 76, originally from Poland)

EXAMPLE: LOCAL GOVERNMENT

In 2019, Maribyrnong City Council developed a Climate Emergency Strategy 2020-2025 and Climate Emergency Action Plan 2021-2025. The overarching goal of the action plan is to “restore a safe climate at emergency speed to provide maximum protection for people and species, recognising and acting on the need for coordinated local and global action.”

The plan includes a strategy to “develop and promote climate information resources in multiple languages” (Maribyrnong City Council, 2022).

Councils’ role in climate emergency response



Source: Maribyrnong City Council Climate Emergency Strategy 2020-2025



THE IMPORTANCE OF COMMUNICATION

When I first come here, I think there are a lot of barriers to language and technology. I was never given any information about extreme weather. So I'm always surprised by the weather. *(St Albans resident, aged 26, originally from Vietnam)*

[During the 2022 flooding event] I was checking on the internet [on government websites] to see if there was any evacuation plan and there wasn't really a lot. There wasn't a lot of in-language emergency evacuation plans so, if things did go bad, it would have to be neighbours relying on neighbours. *(Altona Meadows resident, aged 43, originally from Somalia)*

Maybe the advanced warning or something if the weather's going to be extreme. It would be useful. If they can send a notification to the mobile phones in the area that you are heading towards, the area has severe weather notification and the notification is such and such. And maybe some type of preventative measure that we have to look into. Say that if it is windy weather, it's good to stay inside the house if it is possible. But just in the case of emergency, if you really need to go out, please make sure that you carry this business item with you in that way. Or if there is an area that you have to avoid. If something is happening in that area because of the severe weather or the area is very prone to be hit hard. *(Truganina resident, aged 41, originally from India)*

I see it in Japan. My friend, when they have earthquake, government notifies them constantly for the weather. But here, I never see any texts or anything. If we don't watch news, then we're left out. Maybe some people, they're from my country, they have English barrier, but I think it would be a bit hard to text in the language. It'd be harder but at least they can give something and then we can use that to translate from google translate. *(St Albans resident, aged 26, originally from Vietnam)*

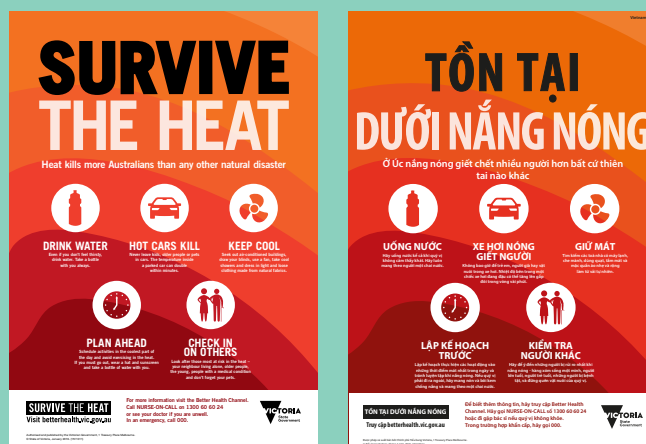
EFFECTIVE COMMUNICATION

Media campaigns and emergency warning messages are used to communicate with communities at risk during extreme weather events. Such communications are most effective when individuals know how to access the information and/or can find it published in their language.



Victoria State Emergency Service information is provided in various languages on their website, including information about translation services.

Source: VICSES



A Victorian Government poster promoting health and safety precautions during extreme heat. Such information is provided in various languages including Vietnamese (pictured here).

Source: Victorian Government, Health Translations

Department of Environment, Land, Water and Planning. (2020). Local Government Climate Change Adaptation Roles and Responsibilities under Victorian legislation. Guidance for local government decision-makers. State of Victoria, Melbourne.

Maribyrnong City Council. (2022). Climate Emergency Action Plan 2021-2025.



FINDINGS, REFLECTIONS & RECOMMENDATIONS

As shown in the exhibition and this booklet, this project has generated some key findings about extreme weather events and their effect on individuals from culturally and linguistically diverse (CALD) backgrounds in Melbourne's West:

- **Extreme weather events can have serious mental and physical health effects.**
- **The damage and destruction to homes and property caused by extreme weather events can have significant economic and emotional costs.**
- **Support in the form of communication, items and facilities would enable CALD communities to better prepare for and cope with extreme weather events.**
- **Individuals from CALD communities use a myriad of strategies in preparation and response to extreme weather, including those specific to their cultures.**

Strategies in preparation for, and during, extreme weather include:

- **Personal strategies** such as staying hydrated and taking cold showers during extremely hot weather. During heavy rain, winds or thunderstorms, participants may stay home and cancel social plans or non-urgent appointments.
- **Strategies around the home** such as stocking up on essential items, using the air conditioner or heater, using blinds/windows and strategically placing plants/shrubs around the home to control temperature, along with securing outdoor furniture during storms and heavy wind.
- **Strategies to escape extreme weather** such as attending a shopping centre or swimming pool during extreme heat, and notifying friends and family of their whereabouts if heading out during storms and/or heavy rain.
- **Culturally specific strategies** included consuming certain foods or drinks in order to warm or cool the body, and looking to the sky in order to predict the weather for the following day. These are strategies that have been used in participants' countries of origins, which have been passed down through generations.

A key finding from the project is that individuals from CALD communities in Melbourne's West are inherently community-minded. Their stories of responding to neighbours in need, donating items and keeping family and friends informed show their care for one another during extreme weather events. Their mechanisms for supporting each other are incredibly important in the face of increasingly frequent and severe weather events.

Community cohesion also relates to the flow of information about extreme weather events. Project participants described the biggest barrier to being able to support each other relates to not receiving timely, appropriate or targeted information. Language and technology are cited as barriers to access. In many cultures, information is passed through family and social networks rather than official channels. Trusted community leaders are also integral to communication. Strong relationships within communities should be developed and harnessed to connect locals in at risk areas with the local systems and organisations responsible for emergency preparedness and response to extreme weather events. These include local government, emergency services and organisations that support communities in response to emergencies.

WORKING WITH PEOPLE FROM CULTURALLY AND LINGUISTICALLY DIVERSE BACKGROUNDS

People from CALD backgrounds are as varied as their many countries of origin.

To reach CALD communities to support them to better prepare and cope with extreme weather events it is important to work with partners who know their communities and who are known by them. Community support organisations such as AMCS know their communities and can be key advisors about approaching community members, and about the strategies that work. These organisations know about the processes for eliciting community information, and about ensuring that the concerns of communities are included as they plan their strategies and actions.

For CALD individuals who are connected in their communities, community leaders are trusted sources of information. The project team learnt a lot by working with CALD community leaders, who were able to help us to introduce the project to potential participants, help us to organise culturally tailored sessions for discussion and creative activities, and in some cases, to help us with language translation.

We also noted that some participants did not belong to a CALD community group and do not meet regularly with others in their network because they are working, have competing responsibilities or have other priorities. Strategies beyond working through CALD community leaders and groups are needed to engage this 'harder to reach' segment of the community.

WHERE TO NEXT?

The findings from this project will be shared with local government and community support organisations in Melbourne's West and other interested stakeholders. Understanding how individuals from these communities think about, prepare for, adapt and respond to extreme weather events will assist organisations to provide appropriate support as these events increase in frequency and intensity as a result of climate change. In doing so, we make the following recommendations:

- 1. Approaches need to be tailored to the communities. For example, most people in our project were happy to talk about the everyday experiences of the weather and about extreme weather events. However, talking about these as the result of climate change was challenging for many. As we know that extreme weather events will increase in severity and frequency, we need to adapt language and tailor the messages accordingly when talking to people about this important topic.**
- 2. Organisations need to take time to develop targeted plans and strategies in partnership with the CALD communities they serve. An important part of this is to constantly examine whether they are meeting the needs of all of the community members or whether they are relying on a small group of people to represent the community. Our research showed, for example, that the needs of CALD people in high-rise housing are quite different to those who live in their own home, during events such as heatwaves. There is need for strategies for 'harder to reach' segments of the community.**
- 3. If we are to build resilience to extreme weather events in CALD communities, it is important to take a participatory and inclusive approach to doing so. We hope that the findings from this project will enable those working at the local level to work together with their communities to develop communication strategies and practical supports before, during and after extreme weather events.**

