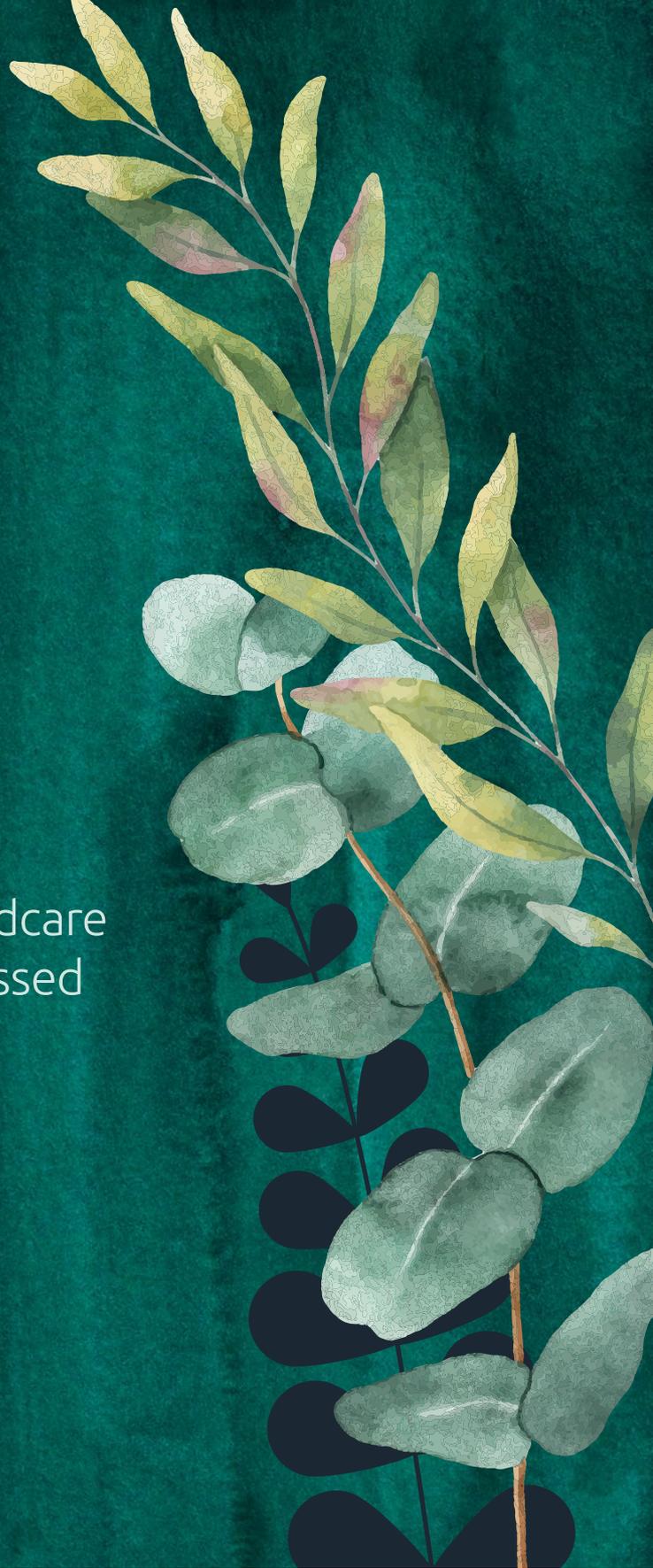


The overwhelm of black and the joy of green

Experiences of members of Landcare
and other environmentally focussed
community groups after the
2019-2020 bushfires.

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April 2022



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The overwhelm of black and the joy of green

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Final Report to Landcare by the University of Melbourne and Federation University.

April 2022

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Executive summary

In 2019-2020 large parts of Australia, including East Gippsland and North East Victoria were badly affected by the intense 'Black Summer' bushfires. Many of these communities had experienced drought, flood and other fires in the decade prior. The bushfires were then closely followed by COVID-19 pandemic.

There is a well-established body of literature that demonstrates the wide range and complexity of disaster impacts. These include impacts to individual and community well-being and damage to the natural environment.

Impacts to individual and community well-being and the natural environment are often assessed separately after disasters, but there is some research showing that these effects can be deeply linked for some people and communities.

In 2021-2022 a team from the University of Melbourne and Federation University undertook research to explore the contributions of local groups to environmental and biodiversity recovery after bushfires and how involvement in these groups affected their members' well-being.

We undertook interviews with 21 members of community based environmentally focussed groups from East Gippsland and north east Victoria who had been affected by the bushfires. We also held a stakeholder workshop with representatives from a range of agencies working to support environmental recovery.

Participants told us about their motivations for joining the groups, activities the groups had undertaken following the bushfires, challenges the groups faced and the benefits they gained from the groups.

Key findings included:

- Community based environmentally focussed groups had a wide range of focus, from enhancing the productive qualities of their properties (e.g. through soil management), pest control, revegetation, citizen science and partnerships with government and research bodies.
- Most environmental recovery activity in disaster affected areas is undertaken on public land. Landcare and other environment groups can greatly extend the reach of environmental recovery activities by connecting with landholders to extend this work into privately owned properties.
- Community based environmentally focussed groups often embodied evidence informed psychosocial support principles.

In addition to highlighting the achievements of their groups and the benefits of group membership, participants identified a number of challenges facing community based environmentally focussed organisations after disasters. These included poorly designed grants and programs, priorities and timelines being driven by external bodies and the burdens associated with community led recovery.

In this report we present the findings of our research and a series of recommendations designed to improve the opportunities for community based environmentally focussed groups to contribute to environmental and social recovery in the aftermath of future disasters.



Background

Who are we?

We are a team of researchers from the University of Melbourne and Federation University. We have different areas of interest in our work, but formed a research partnership because we felt our areas of research complemented each other when it came to learning more about the experiences of community based environmentally focussed groups who are involved in disaster recovery.



Dr. Kate Brady

University of Melbourne
School of Population and Global Health

Areas of research: Individual and community experiences of disaster recovery.



Dr. Jessica Reeves

Federation University
Future Regions Research Centre

Areas of research: Sustainability science, place-based connection.



Professor Wendy Wright

Federation University
Future Regions Research Centre

Areas of research: Ecology, local ecological knowledge, human-wildlife interactions.



Professor Lisa Gibbs

University of Melbourne
School of Population and Global Health

Areas of research: Disaster resilience and child well-being.



Professor Greg Foliente

University of Melbourne
Faculty of Engineering and Information Technology & Centre for Disaster Management and Public Safety

Areas of research: Sustainable urban and infrastructure systems, disaster risk and resilience.

Project Aims

The aims of our research project were to explore:

- The contribution of local groups to environmental and biodiversity recovery after bushfires.
- How involvement in natural environmental recovery activities affects group members' well-being and social resilience.
- Factors likely to enhance and/or inhibit the capacity of community based environmental groups to contribute to environmental and social resilience after a bushfire.

We proposed to gather data with people who had been affected (directly or indirectly) by the 2019-2020 bushfires in East Gippsland and North East Victoria and were involved in a community based, environmentally focussed group.

Funding

This Landcare Led Bushfire Recovery Project has been supported by the Australian Government's Bushfire Recovery Program for Wildlife and their Habitat.

Note about terminology

In this report we use the term 'community based, environmentally focussed' group to refer to groups who are comprised mostly of volunteers, are based at a local community level and have a focus on undertaking on-ground action to benefit the natural environment, including their own properties.

Groups we are referring to include Landcare and their affiliated organisations.

Thank you

We would like to express our gratitude to the participants who generously gave their time to talk to us about their experiences. We know that you are all busy and have had an exhausting few years, so we really appreciate you taking the time out to share your experiences and insights.

Thanks also to those who participated in the online stakeholder workshop. We know you have full calendars, so we are grateful for your time and efforts to support the project. We really value your perspectives.

Thank you to Andrew MacLean, Elissa Kasch, Liz Graham and Phil Vaughn from Landcare for all of your support and patience with us, it's much appreciated.

Particular thanks to Penny Gray and Lyn Coulston for their generosity, guidance, tenacity and time. This project would not have gone ahead without your support.

What we did

In 2021 we started this project with an intention to run a series of workshops throughout East Gippsland and north east Victoria to engage relevant groups in discussion about our key research questions.

COVID-19 restrictions and generally high levels of fatigue in bushfire affected communities prevented us from holding the workshops during 2021. In early 2022, further outbreaks of COVID-19 prompted us to reconsider our data collection methods and we switched to interviews.

Working with Landcare facilitators and other community leaders, we recruited 21 participants who had been impacted by the 2019-2020 bushfires, either directly or indirectly, and who were involved with a community based environmentally focussed group. We undertook semi-structured interviews (online / by telephone) between January – March 2022 and then used a qualitative thematic analysis process to identify emergent themes. We analysed the data simultaneously with data collection. The data was coded iteratively, building on themes identified in early interviews and then reanalysed based on themes identified in later interviews. A benefit of this iterative approach was that we could interrogate some of the emerging themes with some of the later participants.

Additionally, in March 2022 we hosted an online workshop of stakeholders involved in environmental recovery work following the 2019-2020 bushfires. These stakeholders were interested in learning about the perspectives we were hearing through the interviews. It also provided an opportunity for them to come together and discuss their experiences. We asked the workshop participants a series of questions to gain insights about their observations regarding barriers and enablers to the work of community based, environmentally focussed groups following the 2019-2020 bushfires. Their feedback complemented the responses from interview participants. We have integrated these observations into the findings presented in this report.

Who participated



GENDER

Male: 8

Female: 13



LANDHOLDER TYPE

Productive: 8

Lifestyle: 13



LAND SIZE

Less than 10 acres: 9

10-40 acres: 6

40+ acres: 6

Participant locations



^a For a list of agencies represented please see appendix.

What do we know about the impacts of disasters?

Disasters such as bushfires can have devastating and long-lasting impacts on the natural environment and on the well-being of individuals and communities. Damage to, or loss of, infrastructure and properties further exacerbate these impacts.

Bushfires and other socio-natural hazards^b can impact biodiversity, soil and water quality and can significantly alter ecosystems. The effects for wildlife can be devastating with direct effects including death, injury and displacement of individual animals, and threats to the sustainability of populations. Animals that survive fire events can be exposed to ongoing and exacerbated threats following fires, including predators, habitat loss and lack of food. Some species of vegetation are fire tolerant and thrive after fires. However, the capacity for the environment to recover can vary with the location, timing, coverage and intensity of fires¹.

Disasters also have complex, long-term impacts for human populations. Communities affected by such events often have higher levels of distress and negative mental health compared to the general population²⁻⁴. Health, education and economic outcomes can all be negatively affected. There is increasing evidence indicating that gender-based violence increases significantly in disaster affected communities⁵⁻⁷. Destruction of the natural environment can also impact economies and can influence migration away from affected communities, with implications for social cohesion and infrastructure⁸.

Post-disaster periods can be a time of significant personal growth and resilience. Shared experiences can give rise to new meaningful connections and in some cases conflicts.

Nature-led recovery has emerged in recent years as a way to strengthen post-disaster recovery and enhance connection to the natural environment. Participation in and observation of the recovery of the natural environment can be a positive and strengths-based approach to recovery, and opportunities to share stories of natural values can assist recovery and build social connections¹. Additionally, disasters can provide opportunities to prioritise sustainable infrastructure, thoughtful rebuilding, opportunities to encourage social connection⁹, economic changes and can increase opportunities to embrace and utilise First Nations cultural land management practices¹.

Research looking at the long-term impacts of the 2009 Victorian bushfires found that many people experienced considerable grief and distress at the initial devastation the fires had on the natural environment. However, this same study also found that people with a connection to the natural environment also found solace and hope as they observed its recovery⁸.

While disaster recovery planning processes often categorise the impacts on people and the natural environment separately, the experience of those affected by the disaster can be that these are deeply connected.

^b <https://www.undrr.org/terminology/hazard> Socio-natural hazards are associated with a combination of natural and anthropogenic factors, including environmental degradation and climate change

What do we know about being part of a group after disasters?

Community based groups that people can voluntarily join, such as Landcare, sporting clubs and religious groups are important signs of a healthy, connected, resilient community. Community based groups offer individuals opportunities for recreation, social connection, civic participation, a sense of belonging and connection through areas of common interest with people they might not otherwise meet.

The level of group activity in a community is an indicator of social capital. Broadly speaking, high levels of social capital in communities has been demonstrated to be linked with higher levels of education, health, philanthropy, child welfare, length of life and lower crime rates¹⁰.

Importantly for communities affected by disasters, high levels of social capital are considered to be a protective factor for mental health¹¹ and a good predictor of recovery¹².

Research looking at the long-term impacts of the 2009 Victorian bushfires found that being part of groups was protective of individual mental health 3 to 5 years after the fires¹¹. In places where many people belonged to a group, the benefits extended to others in the community, reinforcing the notion that active groups support community resilience^{11,13}.

A relevant finding from the same study was the notion of a 'Goldilocks' level of group participation; not too much and not too little. Generally, being part of multiple groups was positive - until it got to a point where individuals were stretched from a time and energy perspective. Individuals who had moderate group involvement tended to be linked to better mental health outcomes. The ideal balance seemed to be where most members in a community had some involvement in a few groups, rather than a small number of people being heavily involved in most groups¹¹.

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It's not that people who are healthy become joiners, it's clear from the studies that the arrow runs in the other direction, from joining to healthy.

(Putnam 2001 p12)



What environmental work had the groups been able to accomplish?

Participants in the surveys often considered themselves as stewards of the environment. Even under the exceptional circumstances that COVID-19 presented, the activities of some community groups made contributions to environmental benefit during recovery, both individually and collectively.

After the fires, some groups had 'eyes on the ground'; and were able to monitor and report the presence of fauna that may have survived in refugia, such as gullies, or were returning after the fires. In some places, this was augmented by motion sensor cameras, used to spot Superb Lyrebirds, Swamp Wallabies and Bare-nosed Wombats. Other groups undertook activities to support projects led by government and other, non-government agencies. One example involved group members collecting water samples from the Nicholson River to detect the presence of Platypus via environmental DNA. In other examples groups used sound equipment to assist with monitoring for the presence of the rare Ground Parrot in the heathland around Marlo through a partnership with DELWP and BirdLife Australia.

Groups also supported wildlife in a number of ways, including on their own properties. They provided appropriate food and shelter which had been made scarce as a result of the fires. Group members installed nest boxes for bats and gliders on private land, and stocked feeding stations for possums and wallabies. BirdLife Australia supplied over 500 bird nest boxes which were installed on private land across East Gippsland, greatly extending their reach. Some of these boxes also have thermal cameras to test for occupation, without disturbing the inhabitants.

Citizen science activities were popular for some groups, including frog identification and the development of flora surveys, which are recorded in apps, such as iNaturalist. One group created a WhatsApp group so that they could share images

with one another to assist with plant identifications and knowledge sharing, when they were not able to meet, due to COVID restrictions.

Revegetation is an ongoing focus for many groups, both on private land and in public reserves. One participant reported actively re-establishing a rainforest gully on their property, after installing a deer-proof fence. One of the most popular tree planting efforts was of She-oak (*Allocasuarina*), which is the preferred food tree for the Glossy Black Cockatoo. Almost half of the habitat for this species was destroyed in the fires and so Landcare, again in partnership with BirdLife Australia, encouraged

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People were incredibly worried about the bush and the animals that it supports. So quite a few of our projects – we ventured into projects on private land that kind of support projects that government agencies are doing. For example, the glossy black project was to plant casuarina sanctuaries on private land. I mean, you've got this crazy bird that breeds once a year, has one egg, only eats one plant, and only nests in hollow trees. So it's made life really difficult for itself.

landholders to plant *Allocasuarina* sanctuaries on their land. Many interviewees are participants in this project and their efforts are likely to have significant impacts into the future.

Fire can create bare ground which is susceptible to weed invasion. Some groups have made significant efforts to control weeds such as Fireweed, African Lovegrass, Serrated Tussock, Chilean Needlegrass, Blackberries and others – both on their own properties and in public areas, such as along roadsides and rivers or in reserves. Several groups have also developed signage and information to increase community awareness about these pest species. Pest animals are also an increasing issue. One group that was undertaking a motion-sensor camera monitoring program also noticed an increase in the number of foxes, so has implemented a fox control program.

A significant benefit of the community based environmentally focussed groups' activities and

“

So we're encouraging local landholders – and it was one they actually got into because of that kind of eco anxiety stuff. You know, we're really worried and what can we do? And here was something really simple and practical as a landholder that you could do. And you could plant 20 or you could plant 200.

engagement was their role in connecting landholders with various other government and non-government agencies and helping information sharing between these agencies. The groups often represent multi-stakeholder partnerships, bringing together urban and rural residents, farmers, business people, retirees, environmentalists, council employees and locally based agency staff, through a shared care and respect for their land and nature. This bridging enables knowledge exchange as well as an appreciation of different perspectives.

“There's a difference. I guess possibly you'd have to say it's only a very small one as far as rebuilding the environment. It's only a few little isolated spots, but that's better than not doing anything.”



Why did people participate in community based environmentally focussed groups?

What do we know about group participation?

Existing research demonstrates that people join groups for a range of reasons, including interest, social identity, to feel included, to reduce uncertainty and as a source of support^{11,14}.

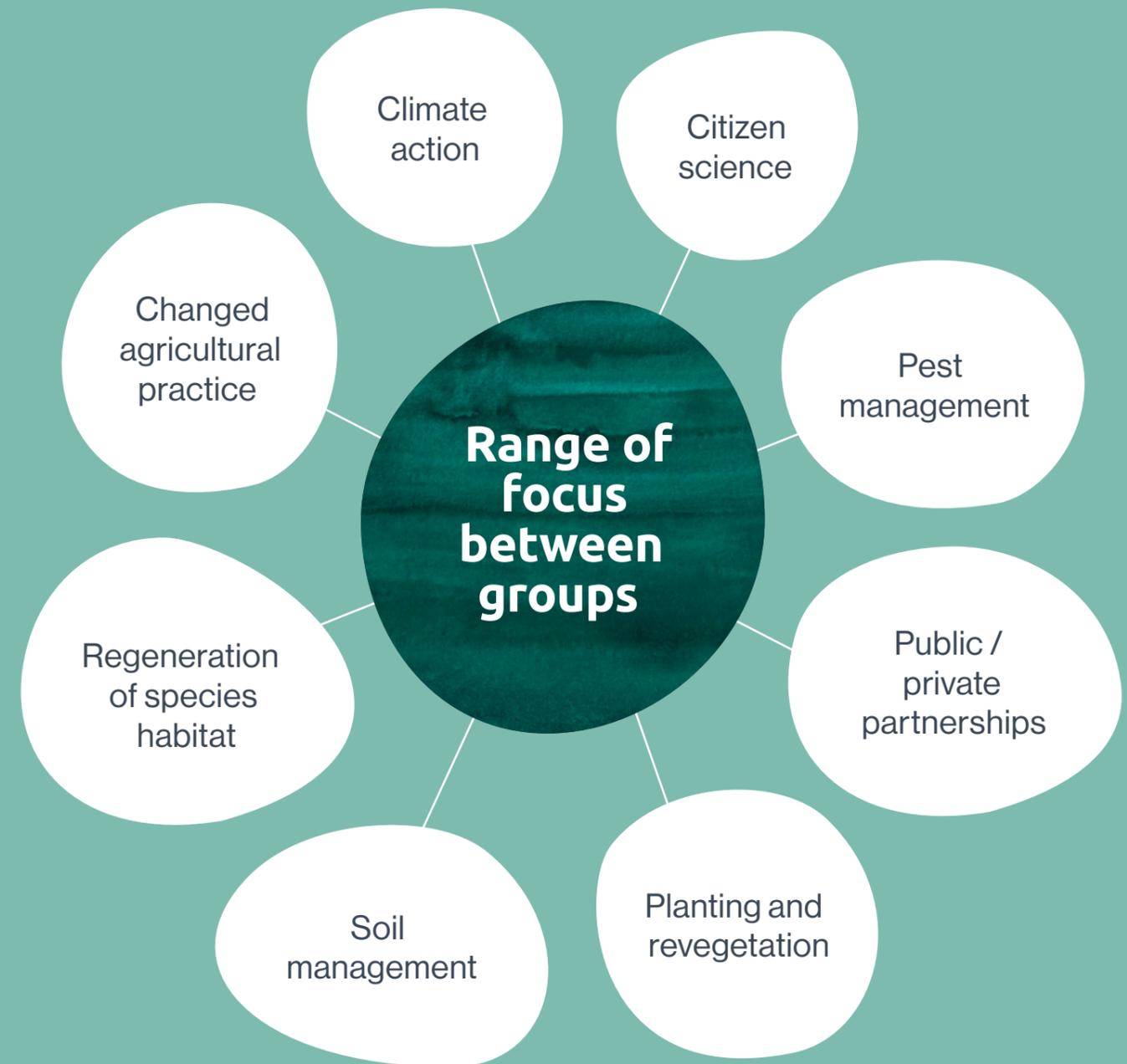
Group activity after disasters has been demonstrated to support social cohesion and community development and to improve coordination of resources¹⁵. Opportunities to participate in nature led recovery processes can be a motivator for individuals to participate in groups after disasters¹.

—
"We all seem to be different, but there's always that one thing that draws people together, us together. And it might be because of the land, and they care about their properties, or their families or the future."

What did participants in this study tell us?

Almost all of the study participants had been members of their community based environmentally focussed group before the 2019-2020 bushfires. They told us that they joined community based environmentally focussed groups for a variety of reasons.

The groups varied in their focus areas. Some were focused on improving the health and productivity of their land (for example, through soil management), while others were very focused on revegetation and biodiversity or pest management, both on their properties and in their local area. Some groups had more traditional approaches (for example, focusing on planting), while other groups had a greater focus on citizen science and public/private partnerships. Some participants were members of multiple community based environmentally focussed groups, citing the different benefits they gain from the different groups.



Participants identified four main motivations for being part of the community based environmentally focussed groups, though some people identified more than one reason for being motivated.

Social reasons

For many participants the social aspect of the group participation was very important. Being a part of a community based environmentally focussed group in the area was accompanied by shared meals, social events and social media groups that extended beyond the environmental focus of the groups.

Participants identified a range of benefits from belonging to the groups. All participants were asked if they would recommend someone in a similar position to themselves to join, and the universal response was yes. The benefits were all linked to the motivations to join. Participants identified that their membership facilitated access to education opportunities and knowledge, they received practical support to manage their properties and had opportunities to participate in research, citizen science and public/private partnerships. Almost all of the participants referred to positive social experiences and an enhanced connection to both their community and the environment through their involvement in the groups.

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Health-wise it's amazing because you're active and keeping your mind active. It's essential that - as you grow older your mind tends to get a bit stale, so keeping information coming into you, new information coming into you and being able to disseminate that to other people, I think, is keeping you alive and healthy.

“

I'd be saying that they can make connections with like-minded people. They can have some fun. They can learn some things. They can just find out a bit more about their backyards and how to appreciate and care for them and love living in the bush.

“

[It is] morale boosting. When you feel like you can't get anything more done, to have someone put themselves out there to help. That's a real mental lifter. If you think of environmental recovery, getting the job done, rather than waiting another 12 months or another 12 months. Some of the plants that were planted last autumn are now a metre and a half high, whereas if they were still in the pots waiting to be done, that wheel wouldn't have started turning. Manpower is definitely part of it. And I think the fact that someone else can think for you. When you're overwhelmed, to have someone actually recognise what's needed and help you make it happen.

Property Management

Participants told us about the strong sense of responsibility they had to care for their properties. The community based environmentally focussed groups they were a part of helped by providing education, practical support and resources and opportunities to exchange ideas and knowledge about how to care for the land.

“

In the beginning my involvement was certainly that I thought we were, as I said, was a farmer then, and we were following all the advice that AgVic and some private landholders then were telling us to do, and I was just walking around the farm one day, and the next minute thought, "This is not working. We're doing that, and that, and that, and that, we're not leaving anything out, and it's not working." Then talking to other farmers, the same thing, kept happening so it was just, "Well, what can we do?" So, I really like it when people think for themselves and support each other, and to me that's what Landcare does.

Environmental Stewardship

Some participants were motivated by desire to contribute to the restoration and care of the natural environment as a part of a 'greater good', either in and of itself, as habitat for wildlife or to improve productivity. They saw their involvement with community based environmentally focussed groups as a way to do this with like-minded people.

“

We established ourselves to make sure the land around here was given protection as much as we possibly could to stop development, ruining the very sensitive pieces of bushland, especially around the [location name] and coastal areas and around the edge of the lake. So, that was our purpose in life, I suppose, to make sure that [the local] waterway and the land around it was kept as natural as possible for as long as possible.

Education and knowledge

Some participants identified their motivation for involvement in community based environmentally focussed groups as a desire to learn more, to be exposed to new ideas, and to help satisfy their curiosity about the natural environment and habitats in their area.

“

Oh, it's definitely stretching me and pushing me in directions that I wouldn't probably have chosen, just - it's extended my knowledge of the bush and animals and birds and habitat



The burden of multiple disasters

What do we know about the experience of multiple disasters?

There is a comprehensive body of evidence which indicates that disasters are likely to become more frequent, severe and intense¹⁶. There is limited reported evidence about the impacts of multiple, concurrent and cascading disasters, but this is a growing field of research. A 2022 review of all available published research relating to the health impacts of multiple disaster exposure found that people who were affected by multiple disasters were more likely to have physical and mental health challenges¹⁷. Exposure to small scale disasters can potentially increase experience and capacity, however a population wide study in the United States indicated that being exposed to multiple small-scale disasters can have similar impacts to being exposed to a large-scale disaster¹⁸.



What did participants in this study tell us?

While the focus of our research questions was related to recovery from the 2019-2020 bushfires, one of the most consistent messages participants wanted to make sure we understood was the stress of multiple disasters their communities were facing.

The East Gippsland and Northeast Victorian region of Victoria had experienced (amongst other things) multiple fires since the early 2000s, years of drought, floods and dramatic industry and economic changes, followed by the 2019-2020 summer fires and then the start of the COVID-19 pandemic.

The fires had arrived at a time when many parts of the community were already experiencing intense stress. Participants reported that many agricultural properties had been destocking, the dairy industry had been affected by drought and the timber industry had been in prolonged decline. Tourism was affected by drought, fires and then COVID-19. Some participants told us that populations were already changing and declining, and the fires and the COVID-19 pandemic added further stress in these areas.

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“There have been, I feel, like a series of unfortunate events that have almost rolled one into the other and they are sort of set against a backdrop of very significant economic change in the community and general population decline.”

In the aftermath of the 2019-2020 bushfires, the COVID-19 pandemic and associated restrictions brought significant challenges for landholders and community based environmentally focussed groups. In addition to the health and economic stressors of COVID-19, groups were not able to come together due to restrictions. This prevented larger efforts like mass planting events, farm walks, lectures, meetings, social gatherings and connection. Additionally, agencies such as DEWLP

and Agriculture Victoria were restricted in the onground and community-facing work they were able to do.

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“It’s really important for rural people to meet. Living where we live is so different to living in Melbourne. You [the researcher] see people all the time. You [the researcher] walk down the street and you can get a coffee. Here, I have to get in the car and drive 10 kms to just get a coffee and then take 10 kms back. It’s a 20 kms round trip.”

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“Not being able to get together. Just little things like Zoom meetings are great, but if you’ve got poor internet connection – well, most of us got pretty poor connection, and to be halfway through a guest speaker and it collapses and things like that, it’s just really frustrating and disheartening.”

—

“I found that with COVID, it kind of created more difficulty around that sort of cohesion, because you noticed that there were some people within the group that didn’t want to get vaccinated, and then some people who thought it was really important to get vaccinated, and so when we were allowed to meet only with vaccinated people, that kind of broke things down a little bit.”

Community based environmentally focussed groups embodied psychosocial support principles.

What we know about psychosocial support principles

After a disaster event, a wide range of supports may be needed. While the types of supports, services and interventions may vary dramatically, there are some broad principles available to guide the development and application of psychosocial support after disaster other mass trauma events.

In 2007, an international group of esteemed clinicians and researchers identified five core principles to guide interventions after disasters¹⁹. These principles are broad and can be applied in a wide range of settings, from clinical interventions to mass communication strategies.



These principles are:

Promote safety

Supporting people to re-establish a sense of safety (physical, psychological and cultural) can help reduce stress and trauma reactions and promote recovery.

Promote calm

Normalising distress reactions and promoting a sense of calm can help reduce hyperarousal in people affected by disasters.

Promote connectedness

People who can engage with their social contacts generally have better outcomes after disasters. Social connections increase opportunities for knowledge exchange, practical problem solving, emotional understanding and mutual coping. This can be promoted by supporting reconnection with loved ones, helping keep families together, providing opportunities for people to come together and linking people with available support.

Promote a sense of self-efficacy and collective efficacy

When people have a sense of control over their life and a belief that they can take actions that will have positive outcomes, it is likely to support their well-being and recovery. This extends to collective efficacy in groups and communities.

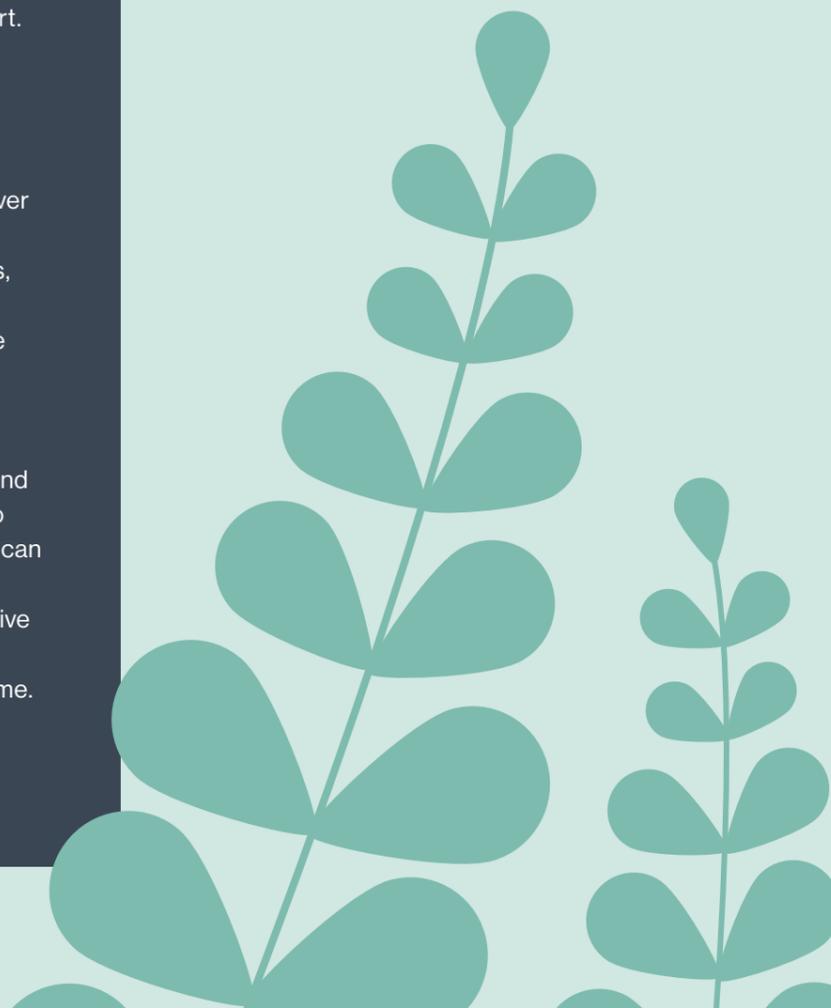
Instilling hope

People who are able to maintain hope and optimism after mass trauma are likely to have more favourable outcomes. Hope can be supported at both an individual level and a community level through supportive action, reinforcing a belief that help is available and things will improve over time.

What participants in this study told us

We asked participants to describe the benefits of being a part of community based environmentally focussed groups. We were able to identify all of the mass trauma intervention principles within the benefits that participants saw in the groups.

Without necessarily planning to do so, Landcare and other community based environmentally focussed groups have been able to embody the core principles of post disaster psychosocial support. While most community based environmentally focussed groups do not consider disaster recovery as core business, this finding indicates that their role is important to support disaster affected people, and is in line with psychosocial support guidelines.



Calm

"There's been a few little things every now and again when somebody might not have turned up, or somebody else thought they were doing a bit too much work, but usually from that, somebody will end up saying, "But we've done this, and this," you know? It's been so easy to keep it harmonious, I think that's been really good for a group, and it's still active. We have a committee meeting on Saturday afternoon up at [John]'s place, and we all turned up, six out of seven committee members turned up. We had a few laughs, we had a wine, or some of us had a wine afterwards, and a bit of a laugh, and we planned out the next two or three months of what we're going to do. Next meeting, next project, who's doing what, all done easy. Bit of fun, yeah."

Connected

"I think it's connection and place perhaps, purpose. I don't know, it's a bit hard to explain because I guess for this group, it's quite clear that we are all pretty much on the same page and that's great. I mean, obviously there will come a day when we're not on the same page, so that might be challenging. But yeah, I guess it's a sense of connection and community, in a way, with a huge value underpinning it and yeah, it's really nice to know that you can call on others or use their knowledge or like it's we're not necessarily best of friends with everyone, but it's still a nice convivial social sense of connection, yeah."

Self and collective efficacy

"So, at the end of the year, you look back and say, "Yep, we actually achieved that. We had fun doing it, we had a few really good social days, but we actually achieved this," and that could be proving there's platypus in the river or doing a fox program and seeing more live numbers next year on our cameras, or even seeing [name of] hill all planted up with trees..."yeah."

Hope

"...I think, you know, like while people needed to rebuild their senses and homes and lives in a lot of cases, I think that was kind of like a good kind of feel-good project. For people to feel like they had some control over how things are going in the in their immediate environment around them, like oh, we can plant these trees and like the wildlife that has lost their habitat will eventually be supported, which is, you know. That little bit of hope, and I think giving people that little bit of control over how things come. You know are being regenerated."

Safety

"So the one thing that Landcare can bring to many things that is really undervalued, particularly from the point of view – my point of view, is that trust. So as a Landcare facilitator, I don't come out with a big stick. I don't do any of that stuff. And people can talk to me."



The challenges and benefits of community led recovery

What do we know about community-led recovery?

Locally led disaster recovery initiatives and planning are seen as key characteristics of successful recovery efforts^{20,21}. One of the six principles of Australian national emergency management guidelines regarding disaster recovery planning recommends using “community-led approaches”, stating that “successful recovery is community-centred, responsive and flexible, engaging with community and supporting them to move forward²².”

There is a range of research that points to locally led recovery efforts being more successful and sustainable than those driven by outsiders. Locally led efforts generally harness pre-disaster networks, draw on local knowledge and expertise and emphasis local empowerment^{21,23}.

In spite of recognition of the importance of community led recovery in research and policy, significant barriers to implementation exist^{24,25}. This has been attributed to things such as the top-down approaches of political systems and emergency management practice and how difficult it can be for people not involved in emergency management or government to find a way to be included in decision making processes^{20,23}. Additionally, there can be practical challenges in post disaster environments where there is a perceived need for immediate action owing to the many needs and stressors people face after disasters²⁴.

What did participants in this study tell us about community-led recovery?

Participants were able to identify many benefits of being able to draw on pre-existing networks and relationships in the post disaster environment. Having strong, trusted relationships allowed people to offer and access support:

“

I think probably one of the advantages of being in a community group at that time was that the network existed and the contact between people existed already. So, you were in a position to respond probably more quickly than other agencies were, and in a personal kind of a way, personal contact kind of a way.

Pre-existing plans and previously discussed ambitions for the groups meant that the post disaster priorities of community based environmentally focussed groups were able to be easily identified and opportunities for funding could be grasped to facilitate these plans.

“

There's a guy who is turning 80 and he's built wetlands during his lifetime. He's unwell. However, he's in recovery, which I don't think he was expecting. But it's been his life's dream to complete this wetland project. And through bushfire funding we've been able to support him do that. So that's pretty special. That would have been a difficult thing to find funding for. He was struggling. So it enabled an elderly man complete his lifelong dream. And that was nice.

These opportunities allowed some groups to ‘leap-frog’ plans that had been discussed and agreed on but not funded before the fires into implementation earlier than anticipated.

In some areas, Landcare was included in broader recovery committees and through these channels, they were able to advocate for member needs and be a conduit between their established networks and other organisations. It also provided opportunities to develop deeper private-public land partnerships for biodiversity conservation.

“

So being invited even to be on that as a not-for-profit was so valuable. And being able to shout out, if you like, for the private landholders, I found really beneficial. And really empowering for Landcare, I think. Being recognised that way.

Being heavily involved in recovery efforts came with significant challenges too. A number of participants identified that the stress that individuals and communities were under following the fires compromised their ability to lead activities and recovery efforts. In many cases, participants expressed high levels of frustration and a sense of being hamstrung by the levels of bureaucracy they considered to be poorly coordinated and not designed to meet community needs.

“

Bushfire Recovery Victoria have an environmental pillar as they call it. So there was investment in activity in that space, those groups were smashed and they've continued to be smashed. And I'm looking at the word benefit and I think there was some significant costs for those, those people who really stepped up to drive those committees... You know they these communities who were smashed and, you know, we lost all these houses really. So it's pretty serious stuff. It's full on and then the government came along and made these communities compete with each other for funding. And that sense that the answer was this market mechanism overlaid over a disaster has had a cost and now we're seeing the real fruits of it come out with the Federal Black Summer Grant results come through with [name of community group] not getting [their project] up simply because...their ABN means they didn't qualify. I think that's the end result of that type of thinking.



“

Funding applications! They are deliberately made complicated... You couldn't believe how difficult it can be made to apply for some of the grants... I do feel that they're made so that they can appear to be giving funding grants when they make an announcement, but they make it so complicated that the money's not taken up... It's almost cruel. Our weed awareness funding, I couldn't face being part of it, but our treasurer and a couple of other community groups took it on. It was just a minefield of complication. It's unbelievable. If the motivation is to provide support, half the benefit is lost in the process.

In some cases, the design of external 'supports' such as government grants for projects with tight timeframes had perverse incentives. One participant explained the dilemma groups found themselves in because of short timelines that affected project outcomes:

“

There was money for replanting, but the timing was all out. [The funder's] deadlines drove things, not when the seeds and seedlings were ready. It's affecting the biodiversity of the area too because we didn't have the seeds

cont...

for a broader range (of species that were native to the area) but we needed to spend the money in a short period of time so we had to plant other species that were ready.

Some participants expressed frustration at the mismatch between what they knew was needed and what was offered to them. They identified that it was difficult for people outside their communities to understand what it was like, but described how overwhelming it was to try and prioritise and then communicate needs while feeling inundated.

“

And I don't mind providing that feedback to government agencies, like they're feeling swamped, they're feeling that five people are asking them if they want to have massages or all that sort of stuff. And for some of them, that just seems ridiculous. They don't want a massage, they want a house. They're quite happy to tell me that.

“

What I would like to be different is stop having all those people ringing up asking. This is a fine line because I'm glad it happened, but at the time I really hated it with people ringing up and asking for how they could help, like I'd have people from Melbourne saying I'm propagating seeds. Where do you want them? I'm like I don't. I want you to employ the local nurseries, so I think keeping the money within the catchment was really important. Don't. And if those nurseries don't have the capacity at the moment, wait till they do. Don't suddenly start sending plants in that... I think yeah, that is really important. Keeping the money within the community.

Participants also discussed the challenges of needing additional support without their ideas being overtaken or ignored. While many participants were too overwhelmed to take a lead on actions they saw as important, they still wanted an opportunity to help guide the planning.

“

We need the government to take more of a lead. Community led is a nice idea but when community is just busy holding itself together, it's difficult... local people know what needs to be done but don't have the energy and time to do it. We need to be able to direct others to do what needs to be done, not have to do it all ourselves. Capacity is not there.

“

Sometimes I think there's all this emphasis on community led recovery, but sometimes the community's in such a vulnerable space, they don't know what they want, they don't know what's possible...

Some participants stressed that community-led recovery does not equate to community members doing all of the work required in post disaster settings, but rather governments and agencies supporting the work that communities identified as needed.

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I guess it was making us feel a bit invisible and that the work we've done previously hasn't been acknowledged. And with the new groups coming in, there was this overall sense from not just us but departments and everything is that, "Oh gosh, it's a honeypot. Here come the bees," if you like. But a couple of them aimed to establish themselves here now and so it was just - I don't know. The opportunism of it was a little bit unattractive.



Long-term approaches to recovery planning and support are important

What we know about the long-term nature of recovery?

Disaster recovery is a long, complex and difficult process for the people, families and communities impacted. Disasters can result in death, illness and injury, trauma, significant disruption to social connections and normal routines, environmental devastation, economic upheaval and physical infrastructure damage. These impacts are connected and can compound each other²⁶.

There is general agreement in disaster recovery research that while most people recover from disasters, it can be a long and complex process.



For example, the Beyond Bushfires longitudinal research into the impacts of the 2009 Victorian bushfires demonstrated that ten years after the disaster a significant minority of people in high impacted communities reported symptoms consistent with diagnosable mental health disorders such as post-traumatic stress disorder, depression and anxiety^{4,27}.

The long-term impacts on the natural environment can be varied. The effects of events such as bushfires can result in the death of wildlife, and ongoing threats such as loss of habitat, food, exposure to predators and changes to the size and locations of species populations. While some plant populations have evolved with fire and may use various strategies to regenerate, frequent and/or high intensity fires may cause so much damage that regeneration is not possible. Some ecosystems, such as rainforests are not fire tolerant and can be destroyed by fire. Without intervention, these ecosystems are likely to transition to another vegetation type post-fire. Bushfires can also have long term impacts on soil condition, soil erosion and waterways¹.

What participants in this study told us about the long-term nature of recovery?

Participants reinforced the long-term nature of disaster recovery and expressed frustration at the mismatch between the pace of their experience and the expectations of outsiders such as donors, spontaneous volunteers and government agencies.

Offers of support following the 2019-2020 bushfires were plentiful, but generally only offered in the short-term. Participants identified that the overwhelming nature of the event meant that they often weren't in a position to access the support offered, but by the time they were ready, it was no longer available. They noted that these mistimed offers of support had negative consequences for affected communities and pointed to the complex nature of long-term needs following disasters.

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And I will say there was a following line of perception that the money wasn't being spent and I was sitting here going, thank God, it's not all being spent at once, but I know the public were like, what was it, Red Cross they got told off for not spending all the money straight away. That needs an education with the public at the other end. Your money doesn't need to be spent straight away. There are people that are still living in shipping containers at the moment... But they also don't have the capacity to make the decision to build.

“

I think that funding is really important and one thing we talked about in recovery is that we know it's a long game. But the amount of funding that came for six months or 12 months immediately after the fires, when people weren't in the space to actually use it. So I don't know how to stop it, but right at the early stage has been able to push back and say no, let's have a structured investment plan for five years. So you've got 20 million bucks. Let's stretch out across five years and let's look at when we really need it, which is years two, three and four. Not year one. We can do things in year one, but we're recovering. That we were all getting bombarded.

The supporters need support too

What do we know about the impacts of disasters to supporters?

People who work to support others after disasters have roles in a wide range of occupations. There is very limited research on disaster recovery workers, but the available evidence indicate that recovery workers are at higher risk of physical and mental health challenges than the general population²⁸.

The emphasis on locally-led recovery efforts in emergency management policy mean that there is a high likelihood that many people working to support recovery efforts will also be personally affected by disasters. These people can find themselves in a dual role; a person working to support those affected by the disaster, and a disaster affected person. The limited research that has been done

on this group of people points to a conundrum that they often face – at a time that they often feel stressed and exhausted by their own experience, they are also trying hard to make efforts to support others, often at the expense of their own well-being and recovery, resulting in more stress and exhaustion^{29,30}.

People outside formal mental health roles can often find themselves in the position of an ‘accidental counsellor’. Through pre-existing relationships, or the nature of their role, people who have roles seemingly unrelated to mental health support (including tradespeople, customer service staff, hospitality and retail workers and administration personnel) can find themselves being repeatedly exposed to others’ stories of trauma, often with no access to training or support to manage the effects on themselves.

What did participants from this study tell us about the role of supporters?

A number of participants expressed gratitude at the emotional support that Landcare staff had offered them both during the drought, and later after the fires. They talked about how they felt comfortable and safe talking to staff. These participants appreciated their support, kindness and accessibility.

While participants expressed how important and meaningful the support was, staff members identified that it had taken a toll on them:

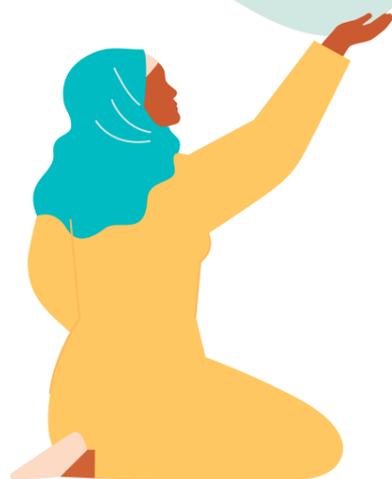
“

So, that’s one of the challenges, and that occurred to me really before the fires, late in the drought. You think, “We’ve got the staff in an open office, anybody in the community can walk in and have a bit of a cry,” and they were, and they might have gone out feeling better, and probably did, but maybe the staff member didn’t, and then it was the third time that day, and that kind of thing.

“

I just used to go in and knock on the girls’ door and go for a chat and have a coffee and vent. They were not only a facilitator for things, they were also probably counsellors and support staff that didn’t get paid. I know I wasn’t the only one knocking on their door and going in for a cry or whatever... to me they do more work or have more benefit to our society than say a Department of Agriculture half the time. Because they’re not probably restricted by – they’re more accessible.

Staff members acknowledged that they had worked considerably more hours than their paid time, often to ensure that those they were trying to support had access to someone they knew and trusted. Considering the value placed on this support, and that it was done in addition to the day to day work (which increased after the bushfires), this is an area that needs consideration by organisations, including how staff can receive additional support and training to manage this aspect of their work, and also support to deal with the additional workload during a disaster.



Recommendations

Our research indicates that community based environmentally focussed groups can positively contribute to social and environmental recovery efforts after disasters such as bushfires. However, we identified some barriers that became (or could become) issues for these groups, and may present challenges in future disasters.

Here are our recommendations to help address these barriers.



Planning

- Community based environmentally focussed groups should continue to invest in long term planning and strategies and identify future ambitions. Following a disaster, these plans can be helpful in securing funding and partnership opportunities which may only be available for a short window after a disaster event.
- Planning that community based environmentally focussed groups undertake should be shared with relevant natural resource management agencies, to ensure a clearer line of sight and raise awareness of capacity and interest within the groups to participate in larger programs. This may lead to partnership opportunities in non-disaster times, and these relationships can be drawn on during and after disasters.
- Local recovery committees and environmental management agencies should consider how community based environmentally focussed groups can be more effectively involved in environmental recovery planning. This could include ongoing roles on planning groups and being part of consultation and decision making processes.

Capacity

- Organisations need to recognise the additional emotional labour that people in community and member facing roles engage in after disasters and consider this when allocating resources and planning support.
- People in community and member facing roles in community based environmentally focussed groups should have access to training and / or professional supervision (or other suitable support) to support their well-being following disasters. People in these roles may be at a greater risk of vicarious trauma and burn out following disasters owing to their likely repeated exposure to stories of others' disaster experiences.

Funding

- Acknowledging the long-term nature of recovery; post-disaster funding should be allocated over an extended period of time to allow community-based groups to plan and take action at the most appropriate time.
- Post disaster funding opportunities (such as grants) need to be designed with the stressors facing the recipients in mind. Simple administration processes, with flexibility and support to complete applications and acquittals and opportunities to discuss barriers and hurdles the groups may face are important elements to help reduce the burden many disaster affected groups face and to ensure activities can be executed in a way that improves outcomes rather than increasing stress.
- Recovery agencies could provide a central role in co-ordinating funding opportunities, such as awareness of schemes, assistance with completing applications and conduit for external funders to relevant partner organisations, such as Landcare and other environmental groups.
- Additional funding support to community-based groups is needed to increase capacity in post disaster environments. These groups are able to draw on long standing, trusted relationships and a continuity of presence and can help support community led recovery in ways other organisations can't. However, these groups often have stretched capacity before a disaster, and their workload is likely to increase in the aftermath, placing an increased burden on local teams.
- Community based environmentally focussed groups should consider coordinating a pro-active campaign to likely funders for future disasters to highlight the importance of long-term funding and the specific needs that environmental recovery projects are likely to have.

Appendix

Organisations represented at the stakeholder workshop in March 2022:

Far East Gippsland Landcare Network
 Department of Environment, Land, Water and Planning
 East Gippsland Catchment Management Authority
 North East Catchment Management Authority
 Parks Victoria
 East Gippsland Conservation Management Network
 Agriculture Victoria
 Rendere Trust

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