THE UNIVERSITY OF SYDNEY

Sydney Environment Institute

12 May 2023

Select Committee on Australia's Disaster Resilience

PO Box 6100

Parliament House

Canberra ACT 2600

Dear Committee Chair

RE Select Committee on Australia's Disaster Resilience

I am writing in my capacity as the Director of the Sydney Environment Institute (**SEI**) in relation to the Select Committee on Australia's Disaster Resilience.

The SEI has prepared the attached submission for the consideration of the Select Committee. I hope that our contribution will assist you and other Committee members.

Yours sincerely,

Professor David Schlosberg

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THE UNIVERSITY OF SYDNEY

Sydney Environment Institute

Community Self-Organising during Disasters

Submission to the Select Committee Australia's Disaster Resilience

Sydney Environment Institute

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Select Committee on Australia's Disaster Resilience
Sydney Environment Institute Submission

1. The Sydney Environment Institute (SEI) welcomes the opportunity to provide a written submission for the consideration of the *Select Committee on Australia's Disaster Resilience* (the Inquiry). This submission consists of four parts:

   Part A outlines the research activities of the SEI and the relevance of our research to the Inquiry.

   Part B outlines the preliminary findings of two research projects that the SEI is currently undertaking.

   Part C relates the preliminary findings of the two SEI research projects to the terms of reference of the Inquiry.

   Part D concludes with further information regarding the scope and merit of a supplementary submission that the SEI intends to submit for the consideration of the inquiry.

A. The Sydney Environment Institute

2. The Sydney Environment Institute (SEI) at the University of Sydney is a global leader in multidisciplinary environmental research. We promote collaboration between natural scientists, social theorists, and non-academic knowledge holders to understand the multidimensional nature of environmental issues.

3. The SEI Climate Disaster and Adaption research group analyses public policies on social, political, ecological, and economic grounds. The SEI contends that a holistic examination of each aspect of climate-change is integral to effective policy making.

4. The purpose of this submission is to situate the Inquiry terms of reference in an analytical framework that acknowledges the essential relationship between each dimension of Government responses to climate change disasters. Our multidisciplinary team has prepared this document to illustrate the essential linkages between the ecological, social, and political processes that shape the environment and the impacts of climate change.

5. This submission also reflects evidence that the SEI has generated in partnership with community organisations and individuals. Our incorporation of extra-academic knowledge and labour distinguishes SEI evidence from traditional academic research. The Committee may benefit from our focus on the material experiences of front-line communities.

6. This submission supplements the general expertise of the SEI with preliminary findings from two significant research projects funded by state and federal governments:

    i. Self-Organising Systems to Minimise Future Disaster Risk (**The DRRF Project**)
    ii. Developing systems and capacities to protect animals in catastrophic fires (**The Shoalhaven Project**).

7. These research projects investigate two major recent climate catastrophes:
    i. The 'Black Summer' bushfires (which occurred across a nine-month period in 2019-2020), and
    ii. The 'East Coast Floods', for lack of a better name, that occurred throughout Queensland, NSW, and Victoria, moving southwards and westwards towards South Australia, during 2021 – 2023.

8. Unlike other isolated or discrete disasters, these continent-long, multi-year, and unprecedentedly intense crises stretched formal emergency responses systems and exceeded bureaucratic predictions and warning systems.

9. Our research explains why, for these reasons, communities throughout Australia were often the first, and sometimes the only, emergency responders, and community-led recovery has been critical in the aftermath.

10. This submission argues that understanding the concrete experiences of front-line communities during natural disaster events is especially critical given recent evidence from the IPCC that, such extreme, widespread and compounding disasters are likely to become more frequent in future.

11. The SEI notes that the increased frequency of climate driven disasters will cause severe natural disasters to overlap more regularly in the future. Indeed, this has already occurred in Australia.

12. The DRRF and Shoalhaven projects illustrate the profoundly negative effects that climate change disasters have had on hundreds of front-line communities in New South Wales, namely the impact of floods and fires in the Northern Rivers, Shoalhaven, Blue Mountains, and Hawkesbury regions.

13. The wide spatial scope of our research may assist the Committee in understanding (amongst other things):

    i. The consistent challenges that front-line communities face during and after natural disaster events.
    ii. The recurring forms of informal community-led organising that emerge in relation to natural disasters.
    iii. Public policy measures that may alleviate stresses on community-led disaster response and recovery efforts.

14. The analytical parameters of the SEI projects are likewise expansive. This document outlines the broader efforts and social impacts on frontline communities in the context of natural disasters. Our engagements with community organisations and individuals may assist the inquiry in its consideration of the ecological, social, and political processes that shape the human and non-human impacts of these disasters.

15. Both projects illustrate how community networks and organisations contribute to community resilience and recovery across all stages of the disaster cycle. This includes everyday anticipatory preparedness, as well as post-disaster responses from emergency rescues through to longer term recovery.

16. Tasks communities have completed include sandbagging and other related flood- or fire-mitigation measures; establishing communication networks; identifying people and animals that need evacuating and/or rescuing, organising and directing logistics and people to implement such evacuations/rescues; coordinating volunteers and donations; sourcing, keeping, cooking and distributing food; removal of debris and cleaning up houses; emotional care and mental health support; supporting others to apply for grants, insurance and/or income support; offering emergency housing to community members; loaning equipment.

17. The remainder of Part A outlines the scope and preliminary findings of each project. Part A also includes a brief appraisal of relevant academic literature which may assist the Committee.

The DRRF Project: Self-Organising Systems to Minimise Future Disaster Risk.

18. This research project is funded by a $487,767 NSW Disaster Risk Reduction Fund grant (The DRRF Project). SEI staff have partnered with local organisations to better understand spontaneous community responses to natural disasters in the Northern Rivers, Blue Mountains and Hawkesbury regions. The DRRF project examines how community networks organised during the response and recovery phases of the Black Summer Bushfires and 2020-2022 flooding disasters.

19. This project commenced in June 2022 and will be completed by December 31, 2023. As of 12 May 2023, we have conducted 68 interviews with community members through the Blue Mountains, Hawkesbury, and Northern Rivers regions. The imminent phase of this project will involve workshop sessions with community members that participated in self-organised disaster response and recovery efforts.

20. To date, SEI researchers have identified recurring forms of self-organised community responses to natural disasters including: the dissemination of critical information; the organisation of house searches and welfare checks; the rescue of stranded people; efforts to assist and care for domestic, farmed and wild animals; the clean-up of houses and streets; the provisioning of basic resources, particularly food, water, fuel, and machinery; and the coordination of volunteer labour and donations from other communities.

21. Informal community networks mostly undertook these efforts without the support of local, state, and federal government agencies. Indeed, many interview participants have explained that the failure of formal agencies to recognise and apply local knowledge ultimately impeded disaster response and recovery efforts.

22. A lack of coordination between government responses and community networks exacerbated the negative impacts of natural disasters including: the severity of fires, damage to property, psychosocial hazards, and the allocation of resources – particularly food, water, fuel, and machinery.

23. Despite the profound challenges that faced front-line communities, informal organising efforts often emerged spontaneously in the acute phases of climate-related disasters. Many networks started as a response to community members' perception that government agencies had failed to: a) discharge their formal disaster response obligations, and b) undertake work that the community deemed necessary beyond the remit of formal disaster response agencies. A unique contribution of the SEI submission is its exploration of the latter criticism in Part C.

24. The DRRF project has also explored how organisations that existed before extreme weather events evolved to meet the changing needs of their communities. The social bonds that individuals formed in existing organisations were often the basis for new and deepened community networks. Fire and flood affected areas with existing community networks had a stronger foundation for spontaneous forms of self-organising when compared with communities with less robust social networks.

25. Many informal networks emerged because community members perceived that government responses had failed. Nonetheless, most interview participants have stressed that the benefits of community-led disaster and response efforts are not contingent on the failure of formal agencies.

26. A key preliminary finding of the DRRF project is that community members want governments to recognise and support the knowledge and labour of informal networks. The question for most participants in our study is not *if* informal networks should participate in disaster response and recovery efforts but *how* they should relate to formal disaster agencies. Accordingly, the DRRF project explores what measures might improve the interface between formal and informal responses to natural disasters.

27. The DRRF project has identified two substantial risks that may undermine informal networks in responding to and recovering from future natural disasters:

28. ***First***, the loss of community knowledge in the immediate aftermath of disasters, or in preparation for future shock events. The potential benefits of informal networks rely on the production, transfer, and application of community knowledge. Natural disasters may, for example, increase the natural rate of experienced and knowledgeable residents leaving their communities.

29. ***Second***, the loss of community faith and support for the formal government agencies that manage the response and recovery phases of natural disasters.

30. The highly experienced and multidisciplinary research team conducting this project includes the following academics, from across geography, politics, law, social work, sociology, engineering, cultural studies, economics, linguistics, Indigenous Studies and other disciplines:

i. Professor David Schlosberg
ii. Professor Danielle Celermajer
iii. Dr Scott Webster
iv. Dr Blanche Verlie
v. Emma Pittaway
vi. Zac Gillies-Palmer
vii. Gemma Viney
viii. Professor Amanda Howard
ix. Associate Professor Kurt Iveson
x. Dr Pam Joseph
xi. Dr Jo Longman
xii. Associate Professor Petr Matous
xiii. Dr Nader Naderpajouh
xiv. Associate Professor Margot Rawsthorne
xv. Professor Jakelin Troy
xvi. Rebecca McNaught
xvii. Mary Lyons
xviii. Rachel Hall

The Shoalhaven Project: Developing systems and capacities to protect animals in catastrophic fires.

31. This project is funded by a $800,000 Black Summer Bushfire Recovery Grant from the Australian Government's Department of Industry, Science, Energy and Resources, and is conducted in partnership with the Shoalhaven City Council (The Shoalhaven Project).

32. The Shoalhaven project uses the experiences of the 2019-20 Black Summer fires in the Shoalhaven Local Government Area (LGA) to inform resilient, effective, and targeted processes that support communities in caring for domesticated and wild animals during catastrophic fires and other climate events. It is based on the observation that while the state, at all levels, was virtually absent from the care of animals (other than farmed animals), community members came together to develop a range of actions, including transporting, caring for and rescuing animals. It seeks to address current systemic gaps, such as the lack of formal structures, to support animals and communities as they experience collective trauma and loss from the impact of fires on animals.

33. The project is designed to achieve several objectives:

    i. To develop comprehensive data about community needs, capacities, experiences and resources for protecting animals during bushfires.
    ii. To provide communities the opportunity to share their experiences and engage in future planning and mobilisation.
    iii. To develop and produce community-generated ideas, models and plans for processes to assist animals in future fire (and other disaster) events.
    iv. And to produce resources that enable communities, both those in the Shoalhaven LGA and others, to replicate processes to protect and care for animals during future climate disasters.

34. This project began in May 2022 and will conclude in April 2024. At the date of submission of this document, we have completed over 70 interviews with a range of stakeholders, including experienced and novice wildlife carers, people who transported and/or evacuated large domestic animals such as horses, farmers, people who managed evacuation centres, and more. We are about to commence our first round of workshops with community members where we will triangulate our data and further investigate suggestions for how to improve disaster planning and emergency management in future.

35. The highly experienced and multidisciplinary research team conducting this project includes the following academics, plus co-investigators from the Shoalhaven City Council:

    i. Professor Danielle Celermajer
    ii. Professor David Schlosberg
    iii. Dr Blanche Verlie
    iv. Dr Anna Sturman
    v. Freya MacDonald
    vi. Alison Cash

Additional Information from Relevant Literature:

36. In a warming world, the scale of impact as demonstrated during the 19/20 Black Summer and the 2022/23 floods across Australia, means the need and accessibility of communities will outstrip even the most resourced of governments' abilities to respond. The Bushfire Royal Commission prompted by the Black Summer fires highlighted the need for improved and less siloed governance arrangements, as well as the need for communities to accept that they will need to step up when emergency services are insufficient. "In significant emergencies and disasters, emergency management personnel do not, and never will, have the capability and capacity to solve the emergency threat for every individual at risk." (Royal Commission into National Natural Disaster Arrangements 2020).

37. Consistent with this finding, Australia is signatory to numerous global disasters, climate change and sustainable development frameworks that all emphasise: the role of localisation and local actors in implementing these agendas; multi-stakeholder collaboration and partnerships to achieve them; and that the integration of climate change and disasters should be considered within the broader social, environmental, and economic development aspirations and context of each country. These include:

    i. Sendai Framework for Disaster Risk Reduction 2015-2030
    ii. The 2030 Agenda for Sustainable Development (the Sustainable Development Goals) 2015-2030
    iii. Agenda for Humanity (2017)
    iv. Paris Agreement (2015)

38. The international donor and humanitarian community also committed to speeding up a localisation agenda at the World Humanitarian Summit in 2016, summarised in the 'Grand Bargain' (2016). Reviewed in 2021, parties agreed to ensuring that "greater support is provided for the leadership, delivery and capacity of local responders and the participation of affected communities in addressing humanitarian needs".

39. The Sendai Framework also notes the role of communities and local actors in disaster response, preparedness and resilience building throughout the document:
    i. "…it is necessary to empower local authorities **and local communities** to reduce disaster risk, including through resources, incentives and decision-making responsibilities, as appropriate" (p. 13)
    ii. "To empower **local authorities**, as appropriate, through regulatory and financial means to **work and coordinate with civil society, communities and Indigenous peoples and migrants** in disaster risk management at the **local level**" (p. 27)
    iii. "To promote the cooperation of diverse institutions, multiple authorities and related stakeholders at all levels, **including affected communities and business**" (p. 33)

40. In addition to a global policy impetus, many studies linked with addressing local level climate and disaster risks have concluded that the growing complexity of issues and their solutions support the need for more participatory and collaborative form of governance (Brink and Wamsler, 2018; Dwirahmadi et al., 2019; Francesh-Huidobro, 2015; Kalesnikaite, 2019; Nagel et al., 2019; Pasquini and Cowling, 2015; Miller and Douglass, 2015; Jacobi et al., 2013).

41. At the local level, actors need to avoid working in silos in order to address risk holistically (Djalante et al., 2013; Dwirahmadi et al., 2019). Growing complexity and ambitious global targets amplify the need for fostering a 'new public management' that involves citizens, the private sector and non-government organisations in local level public problem decision making and implementation (Denters, 2011).

42. Addressing the complexity of risk necessitates the intersection of decisions, politics and actors to achieve climate and disaster resilience. It cannot be the responsibility of a single actor or group of actors (Nagel et al., 2019). Articulated by Singh and Chudasama (2021) as creating the "*enabling conditions*", "*solution spaces*" and "*arenas of engagement"* that facilitate climate and disaster resilient decisions.

43. Collaborative governance - the collaboration of public agencies and non-state actors to address public policy issues - presents a potential means of creating these 'solutions spaces' that enable local level climate and disaster resilient development. Emerson and Nabatchi (2015) summarise benefits of collaborative governance as including:

    i. *"improved coordination of activities, better leveraging and pooling of resources, increased social capital, enhanced conflict management (prevention, reduction and resolution), better knowledge management (including generation, translation, and diffusion), increased risk sharing in policy experimentation, and increased policy compliance*" (p. 718).

44. Despite a wealth of literature and global frameworks articulating what ideally should happen, what is happening on the ground during disasters in Australia is vastly different.

45. As the results of our research demonstrate in the following sections, during large scale disasters communities have stepped up and are using their own resources and networks to respond to and recover from disaster impacts. These communities are currently not adequately trained nor have skills and capacities to enact the aspirations in the literature. Their responses are circumstantial rather than anticipated.

46. Essentially, circumstances will necessitate communities being prepared to act in isolation during times when they are cut off from authorities. They will also need to be linked to pre-existing formal disaster governance arrangements. This would better enable information and community needs to be communicated and for those needs to be met with support of other actors such as government, non-government organisations and businesses.

47. Linking actors horizontally (linking community needs, knowledge, and agency with local, state and federal government support) and vertically (government, business and civil society and the broader public acknowledging mutual inter-dependence) is fundamental to tackling disasters in a warming world. Greater investment in resourcing communities to play their inevitable role is essential.

48. The SEI notes that 26 submissions affirm that Governments need to improve the integration between formal disaster response agencies and community networks. Of the 17 submissions that support the use of ADF forces during natural disasters, 10 said that their support was conditional on the prioritisation of community knowledge and expertise when coordinating when, how, and where the Government deploys the ADF.

49. The focus of other parties' submissions on the merits of self-organised community networks, mirror the provisional findings of our two research projects.

B. Preliminary Research Findings

50. This section of the SEI submission summarises each of the preliminary findings of the DRRF project and the Shoalhaven project. These preliminary findings reflect the specific research questions and priorities of each study. Part C synthesises these findings in relation to the Inquiry terms of reference.

DRRF Project: Preliminary Findings

51. DRRF interviews with community members and organisers in the Blue Mountains, Hawkesbury, and Northern Rivers regions have yielded seven preliminary findings.

    i. Community-led and spontaneous organising depends on pre-existing social, cultural, material, and technological 'conditions of possibility'.
    ii. Spontaneous organising efforts usually reflect community members' perception that formal disaster response and recovery strategies are inadequate.
    iii. Community-led and spontaneous organising provides benefits beyond 'filling the gaps' that inadequate formal disaster agencies create.
    iv. Communities face common barriers and challenges that inhibit self-organising.
    v. Governments should recognise the benefits and contributions of informal and community-led organisations including their distinct economic, material, social, cultural, and psychological needs.
    vi. The Government should support spontaneous and community-led organising in ways that: a) address structural inequities and b) foster democratic decision making at a community level.
    vii. Governments should acknowledge how historical and future policy decisions may curtail the effectiveness of past and future self-organising efforts by exacerbating disconnections within and between communities.

52. To assist the Committee, the DRRF research team has identified five themes that relate our preliminary findings to the inquiry terms of reference.

53. ***First***, community members want governments to better fund, resource, and coordinate formal disaster response agencies. Improving the disaster response capacities of formal agencies will alleviate the burdens that climate-change related disasters place on communities. This critique is not unique to the SEI submission; however, it bears repeating.

54. ***Second***, most community members want formal disaster agencies to recognise the knowledge and efforts of community-networks. Participants in the DRRF project have stressed, for example, that the experiences of long-term residents in prior floods and fires may mitigate the social, ecological, and financial impacts of future disasters.

55. Interview participants have noted that formal agencies cannot reasonably replicate the knowledge that informal networks develop and disseminate. Accordingly, formal disaster response agencies often neglect information that may reduce the severity and extent of floods and fires.

56. The preliminary findings of the DRRF project suggest that governments should adopt measures that acknowledge and integrate community-specific knowledge with formal disaster response strategies. This is not just a question of periodically recording and applying community knowledge.

57. Formal disaster response and recovery agencies should foster ongoing and productive relationships with community-led organisations. Policy makers should be mindful that an extractive relationship with community-led and spontaneous organisers may further alienate these informal networks.

58. Our preliminary findings suggest that governments should prioritise respectful and consistent dialogues with communities to improve disaster response and recovery efforts.

59. ***Third***, many community members want governments to acknowledge the broader social and ecological implications of natural disasters. For example, interview participants consistently assert that top-down government response and recovery strategies fail to recognise the need to care for the welfare of older people and other at-risk individuals; to save and rehabilitate animals and local ecosystems; and the necessary work that informal networks undertake to maintain the social fabric of their respective communities.

60. This necessary work entails significant labour on the part of informal organisations. They also provide the foundations for effective natural disaster prevention, response, and recovery strategies. In short, interview participants are not just concerned with formal agencies capacity to fulfill their existing responsibilities; they are likewise concerned that government policies should consider the broader social contexts of natural disasters.

61. Governments may consider, for instance, how measures that foster and enable interconnected communities may improve their capacity to share valuable knowledge and responsibilities.

62. Our research suggests that many people believe that formal agencies should expand the purview of their policies beyond the mechanics of disaster response (such as evacuation, firefighting, etc) and recovery (including resource allocation and clean-up).

63. For example, governments may consider implementing reforms that support informal efforts to care for community members, to rehabilitate wildlife, and to restore damaged ecosystems. The Committee may consider reforms that incorporate these forms of labour into formal disaster preparation, response, and recovery, policies.

64. ***Fourth***, community members want governments to invest in the physical infrastructure that enables informal networks to function during natural disasters. Interview participants consistently note that the benefits and proper functioning of informal disaster response and recovery efforts are conditional on access to telecommunications, electricity, and road infrastructure. Natural disasters exacerbate the existing barriers that regional communities face in accessing the preconditions for self-organising.

65. Interview participants have consistently noted, for example, how blackouts and telecommunications outages divert essential resources away from other tasks. Outages require community members to spend considerable time and energy coordinating physical welfare checks and redistributing fuel for off-grid power generators.

66. Further investment in backup power systems for cellular services and redundancy in the telecommunications network can improve both: a) the interface between formal and informal disaster response and recovery efforts; and b) the self-organising capacity of community networks between and during natural disasters.

67. ***Fifth***, community members want governments to improve the availability of financial and other resources that sustain community-networks. Interview participants have expressed a desire for both:

    i. an increase in funding for community organisations.
    ii. reforms that make government funding more accessible, timely, and dependable.

68. The proposed benefits of the former suggestion are self-evident. Additional government funding for community organisations may alleviate the financial constraints that restrict informal networks' organising capacity.

69. Governments could enhance the capacities of informal networks by covering administrative and operational costs of their efforts including governance costs associated with establishing and maintaining community organisations; the cost of building, hiring, or maintaining spaces for community meetings, events, and training; and the cost of resources that permit the operations of informal networks including fuel, software, equipment, and incidental operating expenses.

70. Our preliminary findings also suggests that governments should consider reforms that ease informal networks' access to critical funding. Interview participants have consistently raised concerns that grant funding mechanisms entail high administrative workloads. This feature of the current funding regime diverts time away from frontline disaster response and recovery efforts.

71. Interview participants also note that existing grant funding schemes tend to favour individuals and organisations that are comparatively wealthy and familiar with government processes.

72. Interview participants have suggested that the administrative burden of existing grant application processes has diverted money away from the needs of frontline communities towards non-critical projects.

73. Some participants have also contended that the grant system may compound existing socioeconomic inequalities within communities.

74. Concerns along these lines have contributed to intracommunity conflicts in the wake of natural disasters.

75. Of course, governments must balance community needs for timely and accessible grant funding with adequate checks and balances.

76. The Committee may consider how the development of ongoing relationships and dialogue between formal agencies and community networks may guard against the risk of grant manipulation.

77. Supporting the work of informal networks between disasters may assist governments with assessing and expediting grant allocations. These relationships may:

    i. accelerate merit-based funding assessments.
    ii. mitigate intracommunity conflicts that undermine cooperation during natural disasters.

Case Study Examples

78. The following three examples from our interviews may assist the Committee in its consideration of the five themes that the DRRF research team outlined above. While these examples are anecdotal, they illustrate the concrete experiences and perceptions of front-line communities.

79. ***First***, A decision by a formal disaster agency to instigate a backburn of rainforest areas in the Blue Mountains destroyed a critical ecological area and natural fire break. This decision contradicted a prior agreement with community members to avoid backburning rainforests which naturally mitigate the severity and extent of fires.

80. The decision to overrule community knowledge and decision-making processes sowed discord in the community and undermined trust in formal agencies. Moreover, post-fire resurgence of comparatively flammable eucalypts in former rainforests has increased the potential extent and severity of future fire events.

81. The decision to backburn rainforests surrounding populated areas exacerbated the psychosocial harms of the bushfires and engendered a significant rift in the community. The rehabilitation of rainforests damaged by backburning has also entailed significant investments of time and money by informal community networks.

82. ***Second***, the timing of government agency decisions to evacuate residents and close roads contradicted community knowledge and experiences of prior flood events. Interview participants across the Hawkesbury, Blue Mountains, and Northern Rivers have highlighted how formal agencies' neglect of local knowledge often manifested in issuing orders that were too late, too early, and inconsistent (vacillating).

83. Dissonance between community knowledge and formal agency decisions confused many residents and undermined trust in the government response. Some interview participants assert that this tendency increased the frequency of people becoming stranded or otherwise isolated.

84. Moreover, a lack of trust and coordination between formal and informal disaster response efforts exposed community members to potential civil and criminal penalties for actions they undertook to mitigate the loss of life and property. Some interview participants deliberately defied government orders because they perceived the information underlying those decisions to be wrong.

85. For example, many interview participants in the Hawkesbury region have noted that formal disaster response agencies based their decisions on flood statistics that were incomplete, outdated, or otherwise incorrect.

86. Many informal networks, however, made their decisions based on modelling from a popular community-run website: Hawkesbury Flood Statistics. Community members perceived the website as a superior source of information.

87. Accordingly, many informal networks organised their efforts around information that – at times - contradicted formal agencies. These decisions included, amongst other things, deliberate non-compliance with the decisions of formal agencies: to issue evacuation orders; to allow people to return to their homes; and to close roads and river crossings. Irrespective of the merits of these individual decisions, the Committee should consider how – at the very least – a perception amongst community members that government agencies were disseminating misleading information engendered confusion and noncooperation between formal and community-led responses to natural disasters.

88. ***Third***, A lack of communication between formal agencies and informal networks meant that at-risk community members were unaware of critical information including decisions to evacuate areas, to close roads, and where to allocate resources. Interview participants have noted, for example, that formal agencies did not have the local knowledge necessary to identify residents without access to the internet, a telephone, or electricity. This had a particularly negative impact on older people, newer residents, parents of young children, and people living in unsanctioned dwellings.

89. Informal networks mobilised their community relationships to carry out welfare and property checks. This form of labour was particularly hazardous in both a psychosocial and physical sense. Volunteers faced the real prospect of encountering people who were in states of panic or injury. The journey to and from properties in a volatile natural disaster context compounded these risks. Interview participants have noted that the breakdown of critical infrastructure and formal disaster agencies increased the necessity and frequency of welfare checks.

90. Governments may consider reforms that reduce the risks associated with infrastructure failures and welfare checks. These measures may include, for example, proactive engagement policies with at-risk and remote residents; investments in backup power and telecommunications infrastructure; and support for community members that perform welfare checks. This support may include, amongst other things, emergency responder training and mental health services.

Shoalhaven Project: Preliminary Findings

91. This sub-section outlines the preliminary findings of the Shoalhaven Project. The SEI notes that despite the distinct parameters of this project, the preliminary findings are broadly consistent with the DRRF project.

Care work for other animals falls unevenly, is not formally or economically recognised, and generally falls on people already undertaking informal, unpaid care work.

92. Wildlife, while an indispensable part of the functioning ecosystems that our societies and economies rely upon, tend not to be formally or economically productive in manageable 'units' (as with farmed animals), nor subject to rules of private property (as with domesticated animals). In Australia, the work of caring for wild animals who are negatively impacted by escalating environmental degradation therefore falls primarily on volunteers.

93. This project has revealed a tendency for the unrecognised (and sometimes outright derided) work of caring for wildlife to often fall on the same people who perform the under-valued or un-recognised care work required for fellow humans. That is, the systems of care work that allow our societies and economies to function through maintenance of the conditions of the productive economy, are held together by a group of people who face extraordinary and increasing emotional, mental, physical, and financial costs (among others) for doing so. In the face of escalating climate impacts and deep, repeated shocks, the sustainability of this informal system, and thus the bases of our formal systems, are in serious question.

94. This dimension of the Shoalhaven Project affirms the need for policy makers to consider measures that expand the purview of government disaster response and recovery strategies. More generally, it points to a structural gap whereby care for wildlife falls outside all formal structures.

The state provides inadequate recognition of or support for the impacts of disasters on other animals.

95. During the recent climate-change driven disaster events, specifically the Black Summer fires and the subsequent floods, the state, at all levels, was completely absent with respect to the rescue, care, or recovery for other animals, with the exception of support for farmers involved in animal agriculture above a certain scale.

96. Other domesticated animals (including dogs, cats, horses and so on) are categorised as the private property of individual owners and as such all care for them is held to lie with those individuals.

97. With respect to wildlife, the state takes a hands-off attitude, assuming that wildlife will and ought to navigate the conditions themselves. In the case of disasters of the scale that we have witnessed, both of these positions and associated assumptions – that domesticated animals are private property, and that humans have no responsibility for the fate of wildlife – have proven to be highly problematic.

98. Individuals often find that in the face of catastrophic events, they do not have the capacity to ensure the safety and wellbeing of the animals under their care. Further, the capacities that wild animals have to survive disaster events are overwhelmed, and those who survive the catastrophic events are unable to survive the destruction of habitat and sources of food and water.

99. What transpired was that communities, who recognised the inadequacy of these positions and assumptions, self-organised to care for, transport, rescue and provide sustenance for animals before, during and after the fires. They did so with no support from the state and in some cases, in the face of the state and state agencies impeding their work.

100. Their work reflected several important points.

i. ***First***, the wellbeing of other animals is a critical concern for communities.
ii. ***Second***, treating domesticated animals as private property leave both the animals and the humans who care for them abandoned during disasters.
iii. ***Third***, communities do not support the hands-off attitude to wildlife in the face of disasters.

101. All of these observations and points will only become more important in the context of assured escalation of climate change driven disasters into this century.

A range of community networks bloom in the wake of climate disasters.

102. Such organising occurs when local community members notice a need for help, and a gap in the help being provided. They do so spontaneously, generously, and often to their own detriment from an economic and health point of view.

Communities are under-resourced from the start. Responding to disasters poses many complex challenges and tends to deplete them further.

103. Community organisers report a host of challenges that make the critical support services they provide more difficult for them to do than they need to be. These challenges include a lack of funding; lack of recognition of their local knowledge and capacity to contribute by formal systems; lack of safe and suitable premises to house their organising efforts; challenges navigating and interacting with existing state emergency management services which are typically highly hierarchical, centralised, bureaucratic and which employ people who are not-local residents; being overburdened with tasks due to the scale of the work being beyond what local community members could realistically complete.

104. These barriers to effective organising are added to existing everyday challenges (such as cost of living, housing crises, etc) as well as the disaster itself, providing them with a triple-impact of community challenges.

105. Although they are distinct, the interventions community members took during and in the wake of disasters ought to be considered as continuous with ongoing informal care work that members of those communities do as a matter of course. It has been evident that much of this work, both inside and outside disasters, falls outside the formal economy or institutional system, meaning that individuals take it on without adequate support or recognition. The strains placed on such individuals during disasters thus multiply existing pressures. As disasters intensify and multiply, the weight is becoming impossible to bear.

Managing community life after a climate disaster also has intangible challenges, harms, and losses.

106. Community organisers we have spoken to also emphasise the social, interpersonal, cultural, and psychological impacts of the disasters and organising responses to them. Challenges include managing complex community dynamics and tensions; exhaustion, burnout and personal mental health challenges; loss of sense of place and community belonging; the social expectations on them to continue leading community efforts in future.

Communities have strengths and can do things that formal services do not and cannot do.

107. Although communities should not have to take on as much responsibility as they have, organising disaster responses from within local communities offers specific strengths that more formalised, professional services may not be able to offer.

108. These strengths include swiftness of the response; flexibility; knowing what the community needs; drawing on local connections and networks; utilising community skills and resources; being seen as a part of the community and approachable; being in it for the long haul.

C. Comments on the Terms of Reference of the Inquiry

109. The SEI acknowledges that neither the DRRF nor the Shoalhaven research projects directly consider 'the role of the Australian Defence Force (ADF) in responding to natural disasters'.

110. Nonetheless, our interviews and preliminary findings do address the general scope of point (a) of the Inquiry terms of reference namely the merits and limitations of 'current preparedness, response, and recovery workforce models'.

111. Our research also addresses point (b) of the inquiry's term of reference through our engagements with community-led 'alternative models' in the context of natural disaster response and recovery efforts. The remainder of Part C outlines the potential contribution of our research to each of these terms of reference.

Current Preparedness, Response, and Recovery Models

112. While the SEI has not conducted specific research regarding the efficacy of ADF deployments in natural disasters, our preliminary findings do explore the specific institutional and community conditions that precipitated military involvement in the 2021-2022 floods and Black Summer Bushfires.

113. We identify the trigger for ADF deployment as an extraordinary response of 'last-resort' to the failure of existing state-based emergency services. The scale of the disasters overwhelmed both: a) the nominal resources of formal disaster response agencies, and b) the ability of disaster response agencies to effectively utilise their nominal resources.

114. Our preliminary findings suggest that, in many cases, the ability of formal disaster-response agencies to coordinate with communities and other institutions broke-down as they approached constraints on available labour power, equipment, fuel, and other essential resources.

115. The breakdown in the coordination of formal disaster response and recovery mechanisms inhibited both the efficient allocation of existing state-controlled resources and the effective utilisation of community efforts. The failure of physical infrastructure– including roads, telecommunication, and electricity networks – exacerbated these institutional failures.

116. Participants in our research have explained that the disintegration of formal disaster-response systems as well as existing gaps in those systems shifted the financial, psychosocial, and ecological burdens of fires and floods onto informal networks and individuals.

117. The Committee should prioritise the elimination of these burdens and the institutional failures that cause them. The mobilisation of ADF personnel may have mitigated the duration of communities' exposure to the risks of institutional failure; however, as a reactive measure, it could not eliminate them.

118. Accordingly, this submission suggests that the Committee should prioritise the prevention of institutional failures before they arise. Our preliminary findings have identified five key themes that may assist the Committee on that basis:

Theme 1: Government recognition of informal and community networks.

119. Government recognition of community knowledge and organising efforts, and formal inclusion of such knowledge in disaster, resilience, and adaptation planning, may augment the nominal capacities of formal disaster response agencies in a low-cost, efficacious, and socially beneficial way. The Shoalhaven and DRRF projects highlight three critical benchmarks for effective recognition of community knowledge and labour:

120. ***First***, Governments should recognise community-led efforts to 'fill-the-gaps' caused by the failure of government disaster response agencies. Governments should consider how the integration of community knowledge, networks, and strategies may improve the efficacy of conventional disaster response and recovery strategies including firefighting, sandbagging, evacuations, the distribution of supplies, etc. The Committee should consider policies that recognise and integrate the efforts and aspirations of communities in a participatory, transparent, and democratic way.

121. Additional financial and administrative support (for example regulatory changes) may enable communities to deepen the intracommunity networks that disseminate information, share responsibilities, and coordinate resources during natural disasters. The preliminary findings of the DRRF project suggest that participatory local democracy can: a) improve the effectiveness of informal networks' disaster response and recovery efforts, b) mitigate the risk of intracommunity conflicts over grant-funding processes, and c) mitigate the psychosocial impacts of natural disasters by fostering care and support networks.

122. ***Second***, governments should recognise community disaster response and recovery efforts beyond the ambit of formal agencies and strategies. The Committee may consider how existing policies do not adequately recognise the broader ecological and social context of natural disasters. Our preliminary findings suggest that the narrow approach of formal agencies exacerbates the causes and effects of natural disasters.

123. For example, the narrow scope of existing formal responses to natural disasters persistently side-lines the ecological drivers of fires and floods. The failure of governments to recognise the broader ecological and social context of natural disasters may increase the frequency and severity of future events.

124. The DRRF project's engagement with the effects of backburning on rainforest ecologies illustrates the concrete effects of a narrow conception of disaster response and recovery mechanisms. Our preliminary findings suggest that rainforest backburns may be counterproductive for two reasons:

i. rainforests offer natural 'firebreaks' and may not be the most effective way of mitigating the immediate risk of an oncoming fire.
ii. fast growing and highly flammable eucalypts tend to supplant rainforests after backburns.

125. Existing disaster response strategies do not consider these ecological factors to an adequate degree. The narrow focus of formal agencies on the 'immediate' threat of an oncoming fire may create circumstances that compound the causes and effects of natural disasters.

126. Formal agencies should recognise the experiences of community members who understand the relationship between local ecological factors and disaster events. Moreover, governments should recognise how their failure to recognise this knowledge often places significant financial, psychosocial, and time constraints on communities that take on the responsibility of remediating local ecologies.

127. Likewise, the Shoalhaven project illustrates that governments must expand their conception of disaster response and recovery labour to recognise the significance of informal efforts to care for animals (wildlife, farmed, and domesticated). Formal agencies' narrow conception of animal lives and human efforts to sustain them compound the ecological, financial, and psychosocial risks of fires and floods.

128. Our preliminary findings suggest that the mass-death and suffering of animals has a profoundly negative psychosocial impact on local communities. Moreover, the death of native animals impedes environmental recovery and ecological resilience in the wake of disasters.

129. Formal agencies should recognise how and why communities undertake significant unpaid labour to save native, farmed, and domestic animals. The preliminary findings of the Shoalhaven project demonstrate that communities do not support government policies that ignore the welfare of animals.

130. Communities want formal agencies to expand their narrow conceptions of disaster response and recovery to include the care and rehabilitation of non-human life.

131. ***Third***, the Committee must avoid policies that merely 'acknowledge' the work of community networks without addressing the material barriers they face. For the sake of clarity, this submission does not consider superficial gestures and rhetorical acknowledgement of community efforts as authentic forms of recognition.

132. There is a real danger that superficial acknowledgements of informal disaster response and recovery efforts may be used as a pretext for shifting further burdens onto community networks. The research underlying this submission illustrates the need for governments to alleviate the financial, social, and ecological barriers that communities face. This requires material changes in the way governments relate to informal networks.

133. The purpose of this submission is not to propose an ideal division of responsibilities between formal and informal disaster response and recovery systems. Rather, the Committee may consider how the DRRF and Shoalhaven projects affirm the need for ongoing dialogue between governments and communities to negotiate their respective roles.

134. Our research suggests that the ecological and social specificities of each community will affect the division of responsibilities between formal and informal networks.

135. Accordingly, the Committee may consider policies that foster participatory negotiation processes communities and governments. To improve the interface between informal and formal disaster response and recovery efforts, governments should focus on local decision-making processes rather than prescriptive outcomes.

Theme 2: Community specific and community-led networks may reduce the incidence and severity of institutional collapses.

136. Our research demonstrates how the decentralised nature of community networks, and their relatively lateral structure are integral to effective disaster and response efforts.

137. Communities that are more socially integrated and organised between natural disasters are better equipped to distribute information, responsibilities, and resources in volatile situations. Deeper and more extensive community networks mitigate the risk of people becoming isolated where a centralised system fails.

138. For example, a socially embedded person can call upon more people to assist them if they need help. A socially isolated person; however, may be totally reliant on formal agencies or a single neighbour.

139. The Committee may consider how community networks improve communication and response systems in disaster contexts. Our research indicates that deep social networks provide individuals with multiple potential sources of assistance and information. For example, when a severe disaster overwhelms the capacity of a formal agency to disseminate resources and information, community members may access help from their friends, neighbours, or family members. These alternative 'pathways may mitigate the risks that institutional, or infrastructure failures pose to individuals in disaster contexts. The potential benefits of robust community networks are particularly relevant given some geographical areas are more prone to isolation during fires and floods.

140. The preliminary findings of the DRRF project highlight, for example, how valley communities may become inaccessible during fires and floods. Valley communities with robust and redundant social networks may be better able to marshal resources, knowledge, and labour if they become isolated from formal agencies.

141. The Committee may consider how the decentralised nature of well-connected and integrated communities may mitigate the impacts of institutional failures in the future.

Theme 3: Investments in 'enabling infrastructure' may reduce the dependence of community-led responses to natural disasters on formal government agencies including the ADF.

142. Many participants in our fieldwork interviews have stressed that the benefits of community networks are contingent on access to telecommunications, electricity, road, and other infrastructure.

143. The failure of telecommunications systems during natural disasters interrupts the passage of information that underwrites the benefits of informal networks. To address this vulnerability, many community networks redistribute critical labour and resources to hazardous physical welfare checks.

144. Participants in the DRRF project have consistently raised the need for government investment in telecommunications systems including backup generators, off-grid solar power, and other sources of electricity. The SEI notes that the Senate has considered this issue in a separate Inquiry.

145. Electricity network failures also requires volunteers to redistribute resources that are often in short supply including fuel and generators. The Committee may consider how improving the network redundancy of electricity systems may alleviate these stresses on community networks.

146. The Committee may also consider how more resilient electricity and communications networks may mitigate the psychosocial hazards experienced by:

i. people who are 'cut-off' from their respective networks
ii. friends, family, and community members who experience the profound stress of not knowing whether someone is in serious danger.
iii. People who initiate physical welfare checks in-lieu of telephone or internet-based methods.

147. The Committee may consider providing training and resources that mitigate these risks. Proactive consultation and collaboration with community networks may assist formal agencies in establishing the most effective plans for individuals and localities. For example, the Committee may consider (amongst other things):

i. Establishing and maintaining back-up power generators for telecommunications infrastructure.
ii. Establishing short-wave radio alternatives to landlines.
iii. Planning for the fuel requirements of different communities to power generators and other equipment.

Theme 4: Communities should be much better supported.

148. Any measure to improve the functioning of community networks by buttressing the 'resilience' of enabling infrastructure, social integration, and the dissemination of place-based knowledge should be in addition to much needed improvements in the formal disaster response system.

149. The SEI notes that many interview participants are concerned that governments' recent focus on fostering the 'resilience' of front-line communities may be used as a pretence to shift the burden of disaster response and recovery onto informal networks.

150. Strategies premised on building community resilience should not permit governments to abrogate their formal responsibilities.

151. Rather, resilience must be a collaborative outcome, with governments working to support communities to do what they can do best, while ensuring government emergency management and recovery services are better resourced, more effective, and more timely.

152. The SEI also asks the Committee to consider how governments' focus on building resilience may be used as a pretence to abrogate the state's responsibility to address climate change. Given climate change is increasing the frequency and severity of natural disasters, it is incumbent on governments to adopt measures that address this underlying risk.

153. There is a danger that a rhetorical focus on building resilience in disaster affected areas implicitly endorses the idea that communities must simply accustom themselves to the inevitability of worsening climate change.

154. The Committee should consider how climate change is the fundamental driver of the worsening ecological, economic, and social impacts of natural disasters. Accordingly, the foremost concern of government policy should be to address this causative factor.

155. Formulating natural disaster response strategies without a thorough consideration of climate change adaptation and mitigation policies is insufficient.

156. Notwithstanding the potential merits of informal disaster recovery and response efforts, the long-term integrity of front-line communities is contingent on governments' immediate implementation of measures that reduce global carbon emissions.

Theme 5: Formalisation and bureaucratisation are not the answer.

157. Many community networks and relationships are effective precisely because they exist outside of formal structures. The decentralised nature of these networks may improve the timely dissemination of critical information.

158. Community networks build support and care systems that are critical to the psychosocial wellbeing of individuals between and during natural disasters. The benefits of community networks that this submission has outlined are mainly a product of their informality.

159. Accordingly, our research suggests that governments should avoid policies that seek to impose formalising or bureaucratising processes on community networks. The Committee should consider policies that attenuate the benefits of community-led disaster response and recovery systems by alleviating financial, administrative, and infrastructural constraints.

160. Government policies that seek to harness the benefits of community networks from the 'top-down' may be counterproductive. Rather than seeking to extract information and resources from communities, formal agencies should recognise and support their efforts in a collaborative way. This Submission has outlined, for example, how governments can:

i. foster participatory democracy at a local level.
ii. recognise the need for forms of labour beyond the traditional ambit of government disaster and recovery strategies.
iii. alleviate the constraints that undermine community networks.

161. Governments should implement policies that achieve these aims without imposing further administrative and bureaucratic processes on communities.

D. Opportunity for a Supplementary SEI Submission

162. The SEI would appreciate an opportunity to make a supplementary written submission to the Inquiry as we progress the DRRF and Shoalhaven projects. At this stage, we can only provide preliminary findings; however, in coming months we will develop more precise and extensive information that may assist the Committee.

163. The SEI contends that more comprehensive documentation of community experiences, actions and needs would assist the Committee in its consideration of the inquiry terms of reference.

164. The SEI would also welcome the opportunity to provide expert witnesses at a future hearing of the Committee.

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