



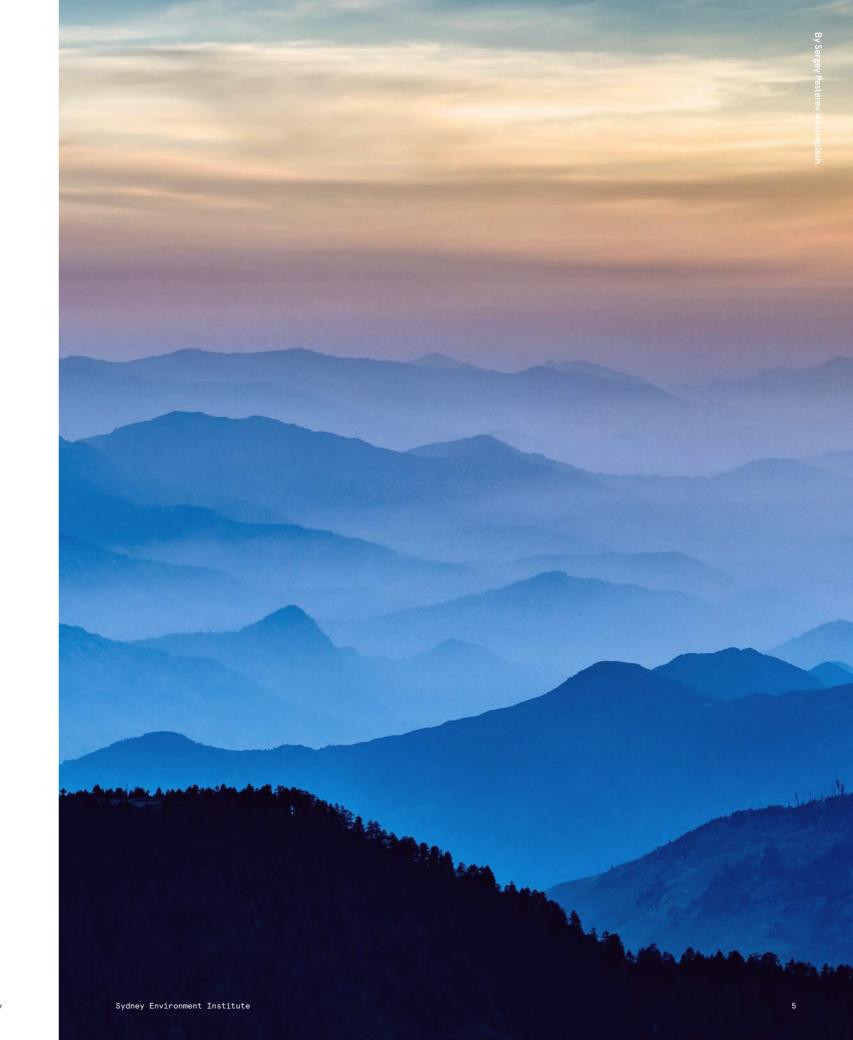
The Sydney Environment Institute is located on the Gadigal lands of the Eora Nation. We recognise and pay respect to the Elders and communities – past, present, and emerging – of the lands that the University of Sydney's campuses stand on. For thousands of years they have shared and exchanged knowledges across innumerable generations for the benefit of all.

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#### Contact us

sei.info@sydney.edu.au sydney.edu.au/sydney-environment-institute Cover image: Wind turbines by Karsten Würth via Unsplash. Previous page image: Blue mountains by Ashish Shrivastava via Unsplash. Opposite page image: Mountains by Sergey Pesterev via Unsplash.





#### **Foreword**

One of many great privileges in joining the University of Sydney as Deputy Vice-Chancellor (Research) in 2022 has been working more closely with the Sydney Environment Institute. SEI's mission of extending and amplifying the scope of engagement on environmental issues and bringing together expertise from across disciplines has never been more important than it is now.

On my second day in the role of DVCR at the University of Sydney, the State of the Environment Report, which I co-authored, was released. This report details the catastrophic situation for Australia with twin climate and biodiversity crises. Almost every environment that we considered in the report and almost every situation that we assessed was deteriorating and the primary cause for that, is climate change.

The Report highlights the need for rapid, urgent action and as a world leader in multidisciplinary environmental and climate research, SEI is a fantastic vehicle to tackle this wicked problem. Since its inception, SEI has played a key role in bringing together researchers, industry, community and government to address the huge challenges we face across the climate and biodiversity crises.

SEI exemplifies what it means to support and enable multidisciplinary research that tackles real world problems. With members spread across the University from the Faculty of Engineering to the Conservatorium of Music to the Law School, and a wider alliance of partners of policy makers, consultants, community-based organisations and not-for-profit and government body representatives, SEI is enabling transformative research with real world impact.

I have been particularly excited by SEI's growing role in climate adaptation research. In partnership with local communities, government and industry, SEI is undertaking two research projects on strengthening community resilience and preparation for ongoing climate disasters. These projects will have practical outcomes for communities responding to climate disasters, and lower the risk of climate-impacted events

SEI also continues to play a leading role in supporting early and mid-career researchers. The programs that SEI has developed to support researchers throughout their careers are truly world class. I want to note the innovation demonstrated by SEI in creating a new Collaborative Grants Scheme which in its first year in 2022 brought together four multidisciplinary teams with researchers from eight different schools at the University.

As the impacts of the climate crisis intensify, drawing together disciplines is more important than ever. It is a great honour and privilege to be responsible for championing and helping to guide the Sydney Environment Institute.

Looking to 2023, the Sydney Environment Institute will play a critical role in delivering on the University's vision as outlined in the 2032 strategy. One of the three key aspirations for the University in 2032 is that "our research is excellent, tackles the greatest challenges and contributes to the common good." I know that the Sydney Environment Institute will continue to epitomize this aspiration.



Professor Emma Johnston AO

Deputy Vice-Chancellor (Research),
The University of Sydney

#### Director's note

2022 was a year when the climate crisis became even more clear and, unfortunately, experienced on the ground, here in Australia and across the globe. The third consecutive year of La Nina hit hard, with record breaking flooding now following years of drought and fires. Thankfully, 2022 brought some hint of further climate action, especially at home. Here at SEI, we have been dedicated to bringing together the work of researchers across the University on the wide range of climate, sustainability, and environmental challenges, and in 2022 we increased our close work with local, state, and federal government – as well as global partners – for real impact.

2022 was also a year of change and expansion at SEI. Changes to University leadership included new colleagues and leaders in the Research Portfolio, where SEI sits as one of the University's Multidisciplinary Initiatives. With new and supportive University leadership, an expanded professional team, and a broadening mission for the University, SEI's relevant and engaged work has become even more central and enabled.

As for our core research mission, in response to the ongoing climate-induced disasters across Australia, we expanded our critical multidisciplinary focus on disasters and adaptation, with significant new federal and state project funding. In addition to building networks of adaptation researchers across campus - from Law to Medicine, and Engineering to Architecture, Design, and Planning – SEI has been growing collaborations with federal, state, and local governments, as well as on-the-ground community organisations and service providers. This mirrors SEI's longstanding engagement methods, with a similar expansion of government, community, and cultural partners and collaborators on projects related to biocultural diversity, climate impacts and community responses, environmental justice, and the required energy transition.

The SEI team was proud to see so many of our research projects and teams be recognised for their outstanding and impactful work across 2022. Members had much success with ARC proposals, along with multiple forms of government and private funding. Our members won many awards for research excellence – at ECR and senior levels – and were acknowledged for being at the top of their fields globally. Importantly, work based at SEI also won awards for research impact.

The Institute continues to grow, and to grow our national and global reputation for innovation and excellence in multidisciplinary environmental studies. Our work continues to be based in issues of justice, biocultural diversity, and environmental communication and storytelling, while remaining thoroughly engaged and embedded in the environmental and climate sciences. The whole SEI team, professional and academic alike, is deeply proud to share a bit of our research and impact in 2022 in the following pages. Thanks to our staff, members, and supporters alike for another significant year dedicated to analysing and solving the environmental and climate crises we face.



Professor David Schlosberg

Director,
Sydney Environment Institute



# 1. About the Sydney Environment Institute

The Sydney Environment Institute (SEI) is dedicated to expanding and amplifying the University of Sydney's engagement on environmental issues. We bring together expertise from across disciplines to tackle the greatest challenges in favour of the common good.

With the climate crisis one of the greatest challenges faced by humanity, and a key focus of the University of Sydney strategy, SEI leverages its networks and expertise in pursuit of impact on climate solutions and leads research contributing to the Sustainable Development Goals.

#### Our vision

SEI's vision is for a just and sustainable environmental transformation in which all life can flourish.



#### How we work

SEI identifies matters of critical environmental concern and engages with them through creative, collaborative projects designed for real impact.



Facilitate connections: SEI builds relationships across the University of Sydney and beyond to help facilitate connections and identify opportunities for collaboration.



**Build community:** Through seminars, public events, workshops and symposia, SEI profiles researchers and builds flourishing working communities among academics, policymakers, cultural institutions, students and NGOs.



**Support and mentor:** SEI supports and mentors students, scholars, and practitioners through funding schemes, grants, training programs and targeted mentorship.

#### In 2022 SEI worked with:

28 international partner organisations, in

11

countries, over



continents

including universities, industry bodies and social enterprises, including University of Copenhagen, India and Bharat Together (IABT), and Feral Partnerships UK.

**37** p

partners across Australia

including in local, state and federal government, and organisations across finance industry, creative sector and not-for-profits, including City of Sydney, Resilience NSW and Headspace.







The current environmental and climate challenges are vast and varied. SEI supports research groups and communities that offer both critiques of the status quo and transformative ideas for change.

### 2. Our people

The SEI team brings expertise from a broad range of academic and professional backgrounds to enable our robust multidisciplinary research and impact.

#### **SEI Directors and Deputies**

SEI is led by researchers striving to challenge disciplinary boundaries through purposeful, multidisciplinary research that contributes to the academy, communities, and industry.



Professor David Schlosberg
Director,
Discipline of Government and International
Relations



Associate Professor Rosanne Quinnell Deputy Director - Education, School of Life and Environmental Sciences



Professor Danielle Celermajer
Deputy Director - Academic,
Discipline of Sociology and Social Policy



Associate Professor Thom van Dooren Deputy Director - Member Engagement, Discipline of Gender and Cultural Studies

#### **SEI Research Theme Leads**

SEI research communities are collaborative and dynamic networks of multidisciplinary research, led by outstanding scholars.



**Professor Danielle Celermajer** 

SEI Deputy Director, Department of Sociology and Social Policy. Research lead: Environmental imaginaries and storytelling, Environmental justices



#### Associate Professor Thom van Dooren

SEI Deputy Director, Department of Gender and Cultural Studies. Research lead: Biocultural diversities



**Professor David Schlosberg** 

SEI Director, Department of Government and International Relations. Research lead: Climate disaster and adaptation, Environmental justices



#### **Dr Sophie Chao**

DECRA Fellow and Lecturer, Department of Anthropology Research lead: Biocultural diversities



**Professor Rosemary Lyster** 

Sydney Law School Research lead: Climate disaster and adaptation



**Professor Susan Park** 

Department of International Relations Research lead: Transitioning systems

#### **SEI Advisory Committee**

**Linking research, industry and community.** The SEI Advisory Committee brings together leading thinkers from around the world to provide insight and advice on our strategic direction, research, and partnerships.

#### Ali Abbas

Director of the Laboratory for Multiscale Systems, University of Sydney

#### Melissa Haswell

Professor of Practice (Environmental Wellbeing), University of Sydney

#### Rebecca Huntley

Director of Research, 89degreeseast

#### Peter Lipman

Founder, Anthropocene Actions

#### lain McCalman

Emeritus Professor of History, Australian Catholic University

#### Joel Negin

Professor and Head of the School of Public Health, University of Sydney

#### Jenny Newell

Curator, Climate Change Projects, The Australian Museum

#### **Dagmar Reinhardt**

School of Architecture Design and Planning, University of Sydney

#### Tim Stephens

Professor of International Law, University of Sydney

#### Glenda Wardle

Professor of Ecology and Evolution, University of Sydney

#### Zoe Whitton

Managing Director, Head of Impact, Pollination

#### **Bhiamie Williamson**

Research Associate, Australian National University

#### **Christine Winter**

Senior Lecturer in the Politics Programme, University of Otago

#### **Georgina Woods**

Head of Impact, Climate Risk Pty Ltd

#### Professional staff team

Bringing a wealth of expertise and professional knowledge to support multidisciplinary environmental research.

#### **Emma Bones**

General Manager

#### **Eloise Fetterplace**

Senior Project and Reporting Officer

#### Suhasini Gunatillaka

Administration Officer

#### **Emma Holland**

Content Editor and
Communications Officer

#### Kirsten Jackson

Program Manager

#### Maria Paula Cardoso Nunez

Administration Officer

#### **Thanh Whittam**

Finance and Administration Officer

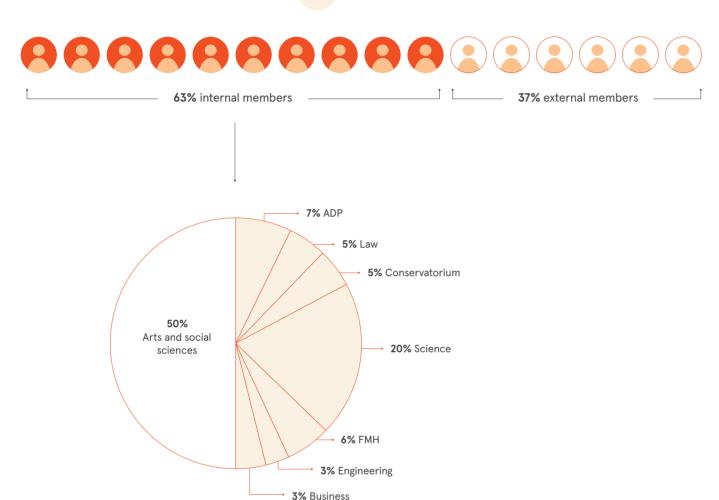
#### Genevieve Wright

**Events and Project Officer** 

The University of Sydney Sydney Environment Institute 13

#### **Membership**

In 2022, SEI grew its membership to nearly 300 researchers, policymakers and practitioners.



#### Internal members

SEI's internal University members are spread across eight faculties with a mix of career stages.

20%	30%	32%	18%
Higher degree researchers	Early-career researchers	→ Mid-career researchers	Senior academics

#### **Member profile: Katherine Owens**

Katherine Owens is a Senior Lecturer at the University of Sydney Law School, Director of the Australian Centre for Climate and Environmental Law and SOAR prize recipient. Dr Owens has been a member of SEI since 2020. Her research combines both social and legal methods to address significant issues of environmental law and governance, including how law and governance should manage climate change, energy transitions, environmental water, environmental finance and the risks of coal seam gas mining.

Kate was one of SEI's 2022 Collaborative Fellows, working with Professor Susan Park on the project Powering a Pacific led renewable energy transformation and is a key researcher on the Unsettling

resources research cluster. Before joining the University of Sydney in 2015, Kate practised for a number of years in State Government and leading commercial firms in Australia and New Zealand, specialising in environmental and planning law.

In 2022, SEI announced Dr Owens as the 2023 Iain McCalman Lecturer. The lectures aim to highlight the work of early to mid-career researchers working across disciplinary boundaries to impact both scholarship and public discourse. Dr Owens' lecture is entitled Harnessing the transformative potential of climate governance: achieving deep coordination, change and equity.





# 3. Research and its impact

SEI's research is aligned with the University of Sydney's strategy to tackle the world's greatest challenges for the common good. SEI researchers' collective work focuses on understanding complex environmental, sustainability, and climate crises, and develops transformational pathways in both thought and action.

Member research and impacts are multi-scalar, addressing everything from everyday life, to local government policies, to the UN's Sustainable Development Goals.

#### **Impact story: Unsettling Resources**

How to transform our societies away from reliance on extractive industry and towards genuine sustainability is a question only heightening in relevance. Crucially, this project probes the use, impact and future of gas, coal and lead extraction in Australia at a critical point in our changing climate. The Unsettling Resources collective has made significant inroads in this area, collectively contributing to public discourse and policy relating to controversial extraction ventures in Australia and the Pacific, including proposed drilling in the Great Australian Bight, the Narrabri Gas Project, an evaluation of Social Impact Assessments in NSW, gas extraction in the Liverpool Plains, and work on the transition to renewables in the Pacific Island Region.

The significance of this work has been evidenced through sustained social, cultural and political recognition including, acknowledgment from industry and policy makers, consistent engagement across leading Australian media publications, and notable engagement from the public (with nearly 1000 people attending Unsettling Resources public events). In late 2021, the significance of this work was acknowledged by the British Academy, with Unsettling Resources research lead Prof Susan Park and other researchers awarded over \$200,000 in funding to conduct crucial research into Australia's just transition from coal

#### SEI's research is organised around five key themes:



# Biocultural diversities Finding inclusive solutions to biodiversity loss and related social impacts







#### **Sustainable Development Goals**

Like the Sustainable Development Goals (SDGs), SEI's research recognises the need for interconnected, systemic shifts across social and environmental systems to achieve a just and sustainable transformation. SEI's research engages in multiple and varied SDGs, with an increasing focus on SDG 13: Climate Action.

Responding to the climate crisis requires significant social, economic, and political change, reflective of deep, systemic dysfunctions. SEI's research collaborations also have substantive impact towards SDG 12: Responsible Consumption and Production, SDG 7: Affordable and Clean Energy, and SDG 15: Life on Land, among others.









### 3.1. Climate disaster and adaptation

The SEI Climate disaster and adaptation (CDA) research theme is focused on disaster response and adaptation planning with communities, businesses, governments and NGOs. Our work centres community-engagement in our approach to develop effective and just solutions to the growing experiences of climate change.

In 2022 the CDA theme focused on bringing researchers together from across the campus community, holding interdisciplinary workshops on four priority research themes to better understand our capacity. We then worked with a range of partners and funders, including Natural Hazards Research Australia, to develop a number of project proposals; this resulted in over \$1.7M of funding for four projects.



**Professor David Schlosberg** 

SEI Director, Department of Government and International Relations Research lead: Climate disaster and adaptation



**Professor Rosemary Lyster** 

Sydney Law School Research lead: Climate disaster and adaptation



### Case study: Self organising systems to minimise future disaster risk

#### Self organising systems to minimise future disaster risk

focuses on the organisation of spontaneous community networks of support in the wake of shock climate events such as fires and floods. Working with partner organisations in the Northern Rivers, Blue Mountains and Hawkesbury regions, the project will examine the community groups who coordinated information, labour, and funding in response to the floods.

In the face of climate disasters, communities organise to save lives, clean up, rebuild – and support their neighbours throughout the process. This project seeks to investigate whether and how local council and state support for spontaneous community organising may lower both the immediate risks of future disaster events and the longer-term risk of delegitimised formal institutions. In examining what communities say they did and need, the hope is to assist communities and governments better prepare for future, inevitable, climate disasters.

#### Funder

NSW Disaster Risk Recovery Fund

#### **Project partners**

Blue Mountains Planetary Health, NSW State Emergency Service, Plan C Byron, Resilient Lismore, StreetConnect (Hawkesbury)

#### **USYD Project team**

Prof David Schlosberg, Prof Danielle Celermajer, Prof Amanda Howard, Prof Kurt Iveson, Dr Pam Joseph, Dr Jo Longman, Prof Rosemary Lyster, A/Prof Petr Matous, Dr Nader Naderpajouh, A/Prof Margot Rawsthorne, Prof Jakelin Troy, Dr Blanche Verlie, Dr Scott Webster (Postdoctoral Fellow and Project Manager)

#### Featured article

"We must stop talking about Australia's 'natural disasters' and start talking about our 'UnNatural' disasters. Natural disasters ignores the fact that our flood and bushfire disasters have been fuelled by human-induced climate change. Calling these disasters natural disasters lets governments off the hook, and has the dangerous effect of lulling the community into thinking there's an inevitability about them."

Rosemary Lyster, Professor of Climate and Environmental Law, calls for greater accountability for unnatural disasters.

#### Read the article



#### Looking ahead to 2023

For 2023, SEI has appointed Dr Justin See, Postdoctoral Research Fellow on the CDA project. Dr See will direct CDA's research, and help us partner with communities across Australia and the Pacific. As always, the CDA focus will be on understanding the experiences of climate impacts, and redesigning both disaster preparedness longer term adaptation planning. For 2023, the Climate Disaster and Adaptation will also focus on the redevelopment of the University's Bushfire Research Network. Activated in the immediate aftermath of the 2019-2020 Bushfires, the network includes researchers working on all aspects of bushfire disasters, from the ecological to the legal, from community-based responses to federal environmental policy.

#### 3.2. Transitioning systems

The climate crisis is impacting how we live our daily lives, requiring an urgent transition of our energy use and systems. Our research explores how we can transition across a range of institutional spaces including politics, economics, food, finance, and energy, and scales, local, national, regional, and global. It examines the interconnections, opportunities and barriers, and the myriad ways in which individuals, communities, and governments are responding to the need to transition in a climate-changed and climate-challenged world.



Professor Susan Park
Department of International Relations
Research lead: Transitioning systems



### Case study: A just transition from coal in Australia

A just transition from coal in Australia examined how a 'just transition' is being defined in Australia. As the climate emergency worsens, Australia's domestic electricity remains coal-dependent while Australia remains the world's largest coal exporter. The nation's ability to achieve a just transition will have significant implications for broader efforts to decarbonise in both Asia-Pacific and the world. The project explored the key challenges to achieving a just transition, and set out a new, broader approach to it which will help shape global efforts to justly achieve the climate action that is urgently needed. Researchers conducted a rapid evidence review that built on existing work combined with new interviews and focus groups drawn from Government, industry and civil society in Canberra, NSW and Queensland.

The project team produced a report titled *Towards a just transition from coal in Australia?* which examined how Australia uses the concept of a just transition. Analysing content in major newspapers, researchers identified how the concept has been viewed as toxic within debates over how to transition from fossil fuels particularly coal. The project hosted a stakeholder forum including government, industry, NGOs and local coal community campaigners to identify the key issues for managing a transition from coal in a just way. The outcomes of the research were published in The Conversation.

#### **Funder**

British Academy Just Transitions in the Asia Pacific Grant

#### **Project partners**

A/Prof Gareth Edwards, University of East Anglia, SEI Fellow

#### **USYD Project team**

Prof Susan Park, Dr Robert McNeil, Gemma Viney, Jan Kukic-Riker

#### **Featured** event

The Communities on the Frontline series, highlighted the impacts of a transition from fossil fuels to renewable energy on a diverse range of local communities on the frontline. Across four events running in 2022, SEI provided a platform for discussion between researchers, community members, policy makers, industry representatives and government officials from all levels to discuss the social impacts of Australia energy transition.

Listen to the podcast series



#### Looking ahead to 2023

Transitioning systems will:

- Focus on how to assist the Pacific in its efforts to move away from dependence on fossil fuels, transition to renewable energy, meet Pacific Island States National Determined Contributions and adapt to a rapidly changing climate.
- Focus on the critical minerals and metals necessary to transition our energy use and systems to renewable energy including Lithium mined in Australia.
- Analyse how we are transitioning across a range of industries to reduce our carbon impact and the costs of climate change: food, climate finance, climate accounting, reducing the impact of carbon in health, and addressing climate anxiety.

#### 3.3. Biocultural diversities

Work in the Biocultural diversities theme at SEI aims to find creative and inclusive solutions to biodiversity loss. The concept of biocultural diversity is anchored in a recognition of the interrelatedness of people and their environments. In 2022, we developed a range of projects in this area, many of them focused on working with communities to better understand what the loss of plants and animals means to them and to find creative ways to stem these losses.



#### **Associate Professor Thom van Dooren** SEI Deputy Director, Department of Gender and Cultural Studies Research lead: Biocultural diversities



**Dr Sophie Chao** DECRA Fellow and Lecturer, Department of Research lead: Biocultural diversities



#### Case study: The urban field naturalist project

Wildlife exists all around us - in our backyards, on our balconies, in parks and disused industrial areas. The urban field naturalist project brings design, research, digital and environmental humanities and life sciences together, with a focus on community nature storytelling.

This project has produced a highly successful book for a popular audience called A Guide to the Creatures in Your Neighbourhood that gives people the tools to explore, understand, and appreciate the wildlife all around them. The book has been widely praised and discussed in the media. We've also run a series of workshops that have given young people and migrant and refugee communities an opportunity to develop their skills in nature storytelling while learning a bit more about the creatures they share their lives with. Finally, we hosted an exhibition and a series of other events that explored the value of storytelling in diverse media for engaging communities in biodiversity conservation.

#### Funder

The University of Sydney, The University of Technology

#### **Project partners**

A/Prof Zoë Sadokierski (UTS), Dr Andrew Burrell (UTS), Dr John Martin (Taronga Zoo), University of Technology Sydney, Taronga Zoo, Lost in Books, hundreds of people around the country and the world who have contributed their time and stories to the project.

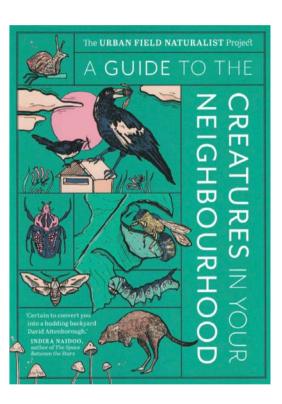
#### **USYD Project team**

A/Prof Thom van Dooren, Prof Dieter Hochuli

#### **Featured book**

Tune in to the richness and diversity in your local environment with this playful, quirky guide that's packed with interactive projects, nature writing and sketching activities. Combining science with art, philosophy, and storytelling, the book aims to cultivate a sense of wonder and appreciation for our remarkable natural world.

Learn more about the book



#### Looking ahead to 2023

In 2023, research in this theme will continue to grow with exciting new projects focussed on environmental regeneration in the Riverina, on the complex relationships between human communities and kangaroos, and on our ways of understanding and living with sharks in Australia. We'll also continue our projects on urban wildlife, asking how these plants and animals are doing in our cities and what more might be done to cultivate a better understanding of and appreciation for them.

#### 3.4. Environmental justices

Across 2022, the Environmental justices research theme focused on two broad projects examining core issues in, and obstacles to, both environmental and multispecies justice. An ARC-funded team completed extensive Q surveys, interviews, and focus groups across the (virtual) globe, in order to update academic and movement conceptions of environmental justice, along with its obstacles and enablers. The Multispecies Justice Collective continued to produce a suite of publications garnering extraordinary success in terms of citations and influence. Their work has, for example, spurned panels or themes at a number of international conferences including the Western Political Science Association and the American Association of Geographers, and their state of the field paper in Environmental Politics is currently most cited article over the last three years.



#### Professor Danielle Celermajer SEI Deputy Director, Department of Sociology and

Social Policy
Research lead: Environmental justices



#### **Professor David Schlosberg**

SEI Director, Department of Government and International Relations Research lead: Environmental justices



## Case study: Developing systems and capacities to protect animals in catastrophic bushfires

The project, <u>Developing systems and capacities to protect animals in catastrophic bushfires</u>, uses the experiences of the 2019-20 Black Summer fires to inform resilient, effective processes to support communities in the Shoalhaven LGA in caring for domestic and wild animals in the face of future catastrophic fires and other climate events. It addresses systemic gaps in order to support communities as they experience collective trauma and loss from the impact of fires.

Through speaking with members of the Shoalhaven's farming, wildlife advocacy and companion animal communities, SEI researchers have been able to map the layers of formal and informal response during and following the 2019/20 bushfires. In many cases we have provided interview participants with the opportunity to talk about their experiences caring for animals during the disaster for the first time. This interview data will structure our workshop series, which will bring streams from these networks together and identify opportunities for policy demands, practical interventions and training. The data gathered to date suggests some useful chances to critically interrogate our understanding of care for animals and to help guide mobilisation during and following disasters to ensure the best outcomes for these animals and their communities.

#### **Funder**

Federal Government's Black Summer Bushfire Recovery Scheme

#### **Project partners**

Shoalhaven Council

#### **USYD Project team**

Prof Danielle Celermajer, Prof David Schlosberg, Dr Blanche Verlie, Dr Anna Sturman, Ms Freya MacDonald

#### **Top-cited publications**

Research outputs in Environmental, Climate, and Multispecies Justice (the latter a framework for justice scholarship developed by SEI) have become the top-cited and/or top downloaded articles in three different major journals:

Environmental Politics, WIREs Climate Change, and Ethics and International Affairs.



#### Looking ahead to 2023

In 2023, the theme's project groups look forward to further presentations, publications, and grant proposals that continue to broaden SEI's reputation as a major global centre of environmental, climate, and multispecies justice research and practice. Policy workshops and writing intensive are planned to amplify the public and academic impact of this research. Professors Danielle Celermajer and David Schlosberg and Dr Blanche Verlie were also awarded an \$800K grant in the Federal Government's Black Summer Bushfire Recovery Scheme to lead a project on Animals in Bushfires.

### 3.5. Environmental imaginaries and storytelling

How people collectively imagine and narrate the relationship between humans and the environment shapes environmental futures. We are particularly interested in understanding the two-way relationship between imagination and storytelling and transformative collective action: how collective action can reshape how people imagine their futures under conditions of climate change and environmental loss, and how stories transform actions. For researchers in this theme, imagination and story are multidimensional, including emotions and narratives, and can be created and transmitted across a range of media.



#### **Professor Danielle Celermajer**

SEI Deputy Director, Department of Sociology and Social Policy Research lead: Environmental imaginaries and storytelling



### **Case study: Grounded Imaginaries**

Grounded Imaginaries (GI) explores the adoption of imaginaries for climate futures that will better empower communities to take meaningful collective action. With a particular focus on young people, the project seeks to understand how communities in Australia and India are taking action to address climate imaginaries and tell those stories to inspire other communities and influence policy environments.

The project aims to impact the communities in which we conducted research, other communities that are considering developing transformative action on climate change and the policy environment to better support such actions, as well as the youth fellows involved. To date, we have produced stories across a range of media, including a podcast series, short films, community radio programs, artworks, media articles and an academic article, as well as collaborating in community-based activities such as festivals and events in India and Australia to disseminate stories of transformative action. The project has also produced policy briefs, in particular on local food systems, and facilitated policy change at the local government level. Each of the youth fellows has developed a broad range of skills in facilitating, researching and documenting community transformative action.

#### Funder

V Kann Rasumussen Trust

#### **Project partners**

India and Bharat Together (India), The Social Entrepreneurship Association Auroville (India), SAGE (Moruya, Australia), The Planetary Health Initiative (Blue Mountains, Australia), Information and Resource Centre for Deprived Urban Communities (Chennai, India), Keystone Foundation (Nilgiris, India), Maati Sangathan (Uttarakhand, India), Navikarana Trust (Ladakh, India), Uttaranchal Youth and Research Development Centre (Uttarakhand, India), Vikalp Sangam (India)

#### **USYD Project team**

Prof Danielle Celermajer, Prof David Schlosberg, Ms Genevieve Wright, Ms Maria Cardoso Nunez

#### **Reimagined Futures podcast**

How can we so clearly understand the gravity of the climate crisis and what needs to be done and yet still not be acting fast enough? This seven-part podcast series explores how some of the most impacted communities in the world are engaging in collective action to reimagine a just and sustainable future for all.

Follow five communities from India and Australia who are taking collective action to create real and sustainable futures and more positive imaginaries, even in the face of huge challenges.

Listen to the podcast series



#### Looking ahead to 2023

Recognising the power of a range of media for telling stories and creating imagination, in 2023, we are expanding the range of media of our research to include listening, connecting, and understanding our environment through the medium of sound, and the visual representation of the climate and environmental present and future. We will also deepen our work on environmental emotions, with a research partnership with Global Partner Edinburgh University focused on 'negative' environmental emotions and different modalities of storytelling, including film, painting and autobiography.

# 4. Researcher support & development

SEI supports and mentors ambitious, imaginative, collaborative endeavours by students, scholars, and practitioners. Our intention is to train and encourage our members, from students to experienced researchers, to be multidisciplinary scholars and problem solvers for real impact.

The schemes and programs SEI offers are designed to support researchers at all stages of their careers. This includes development and capability building activities that range from training in multidisciplinary research methodologies, running information session on different career pathway opportunities, providing one-on-one mentoring on funding submissions and project proposals, advice and coaching on writing for different channels, and logistical support for member's research dissemination and engagement activities.

SEI members have access to an impressive network of nearly 300 mentors and collaborators to support their research and professional development – not only from experienced academics across all faculties at the University of Sydney, but a wider alliance of external researchers, policy makers, consultants, community-based organisations, not-for-profit and government body representatives.

"Doing my honours at the Sydney Environment Institute without a doubt gave me a leg up in my career... Whilst at the Institute I definitely built relationships with various people in government agencies and other organisations in the resilience field, which either directly or indirectly have led to all of the jobs that I've had since doing my honours year. So I would definitely recommend getting involved with the Sydney Environment Institute."

- Alice Simpson Young 2018 SEI Honours Fellow

#### **SEI Honours Students 2022**

In 2022, SEI welcomed three students completing their honours year at the University of Sydney on topics aligned to SEI's Research Themes. The SEI Honours Research Fellowship Program provides a supportive environment and community for emerging researchers, and exposes them to multidisciplinary thinking and methodologies in order to address critical environmental issues. Honours Fellows are provided with additional mentoring from SEI members, opportunities to present their work and participate in roundtable discussions, a desk in the SEI office, and a bursary.

- Olivia Mulligan
   Access to information about the Warragamba
   Dam Wall Raising Proposal
- Ailish Ryan
   A Theoretical Place for "Care" in Critical
   Environmental Justice Studies
- Vivienne Mant Goodes
  Classifying Conversations: Colonial natures,
  educational botany books, and the provincial British
  home. In 2022, Vivienne Mant Goodes received
  First Class Honours and the University Medal.

#### **SEI PhD Scholarships**

In 2022, the Sydney Environment Institute funded three Doctor of Philosophy (PhD) students, and SEI Executives and Research Theme Leads provided supervision for students working on projects that closely align to SEIs Research Themes.

#### **SEI PhD Fellows:**

- Liberty Lawson Eco-Epistemology of One Tree Island
- Freya MacDonald
   Environmental Fiction and Future Environmental Imaginaries: close reading contemporary
   Environmental Fiction and Creative non-fiction written during and in the wake of the 2019/2020

   Black Summer Bushfires in Australia
- Ana Maria Ulloa
   The Roles of NGOs in Fostering Multi-level
   Accountability: Can Learning Improve Biodiversity
   Loss and Climate Change?

#### **SEI Supported PhD Students**

In addition to funded PhD Fellows, the Sydney Environment Institute provided support, collective mentoring and access to development opportunities to eleven students, working on SEI projects, or within SEIs Research Themes.

#### Postdoctoral fellowships

SEI's Postdoctoral Fellows have played a key role in developing projects within the Research Themes, creating networks and support systems for SEI members and collaborators, securing research funding for the Institute, and contributing to a wide range of research dissemination and translation activities.

SEI has been delighted to see the progression of many SEI PhD students and Research Assistants into roles as Postdoctoral Research Fellows. Continuing our significant investment in development of a new generation of multidisciplinary environmental scholars, two new postdoctoral roles were created, and recruitment for these commenced in late 2022. The response of close to 200 applicants speaks to the exceptional reputation the SEI has in the multidisciplinary Environmental Studies space, both nationally and globally. In addition, SEI houses and supports Postdoctoral Research Fellows hired as a result of external grant or project funding, including recent work in our Climate Disaster and Adaptation and Environmental Justices themes.

#### 2022 Postdoctoral Research Fellows:

- · Dr Blanche Verlie
- · Dr Anna Sturman
- · Dr Scott Webster
- Dr June Rubis
- Dr Christine Winter

"Directors, researchers, students and professional staff have all helped me immensely throughout the nearly three years I've been at SEI. If it wasn't for the role that I've had here, I would not have had the time, networks, support or resources to do the work that I have done."

- Blanche Verlie

The University of Sydney Sydney Environment Institute

#### **Support for Early Career Researchers**

SEI is committed to developing and showcasing the work and capabilities of Early Career Researchers. SEI sets ambitious targets to ensure researchers receive exposure and experience while collaborating with SEI. All SEI-supported research projects must include two Higher Degree Researchers/Early Career Researchers/Mid-Career Researchers. SEI events prioritise EMCR panel chairs and panellists, and where possible we put forward EMCRs as media contacts and lead authors. Specific programs developed to support EMCRs at SEI include:

#### Mentoring and research training

SEI's Director, Deputy Directors, and Research Leads supported Early and Mid-Career Researchers (EMCRs) on multiple funding applications, requests for tender/proposals (RFTs), and responses to engagement opportunities.

In 2022, SEI coordinated a series of workshops to provide information and assistance to EMCRs submitting funding applications for competitive Australian grants. This series was led by SEI Deputy Director of Member Engagement, Associate Professor Thom van Dooren and provided attendees with a general overview of Australian Research Council processes, and guidance on how to conceptualise a clear and compelling project. In addition to workshops, SEI Executives and Research Leads provided individual support through contributions to funding submissions, reviews of research proposals and budgets, and editorial support for publications and opinion pieces.

"I have worked closely with David Schlosberg on my probationary academic plan which has included seriously identifying areas for further training to bolster my career development as an ECR. This has included courses for project management and, for this semester, academic and non-academic grant writing skill development that I believe will be essential for my next career steps. SEI also runs workshops for drafting and submitting monograph proposals – which I have found extremely helpful for converting my PhD research into a book proposal – as well as developing ARC DECRA proposals which I have attended with a future application in mind. These workshop series have been great for de-mystifying these often intimidating processes."

- Dr Scott Webster

#### **Methods Lab series**

Featuring seven events run throughout 2022, the methods lab series featured SEI researchers sharing their expertise on methodologies they had implemented in their own environmental research. The series nurtured multilateral conversation to kindle a rich ecosystem of methodological practice. The 2022 labs will be packaged as a podcast series by SEI, and made available to post-graduate students and teaching academics within the University of Sydney.

#### **Employment Pathways series**

The Sydney Environment Institute delivered the Employment Pathways series to provide HDRs and ECRs with insight and advice from researchers who had progressed their careers through differing pathways. Former students, employees, and current collaborators were invited to speak at three sessions in 2022:

- Pathway to not-for-profit with speakers David Ritter (Greenpeace Australia-Pacific), Nathaniel Pelle (Australian Conservation Foundation), and Alix Pearce (Climate Council)
- Pathway to policy with speakers Lisette Collins (NSW Department of Premier and Cabinet), Emma Calgaro (NSW Reconstruction Authority), and Alice Simpson-Young (AECOM)
- Pathway to cultural institutions

   with speakers Emily
   Jateff (Australian National Maritime Museum), Chris Mercer
   (Arup), and Jenny Newell (Australian Museum).

"The six months gave me the time to think much more strategically, to really focus in on what do I want to do on a DECRA... to work on a whole heap of papers including on this project... and to just really think and pull things together.

Alastair and I, we were sort of talking about potentially collaborating, but the fact that this opportunity came, really sort of cemented that. And having another opportunity like that... with someone in an area that is completely outside of the area where you are, I think it's tremendous. It's really exciting. So I really commend SEI for initiating that."

– Dr Tanya Fielder

#### **Collaborative Grant Program**

SEI's Collaborative Grant Program supports the development of new, collaborative, multidisciplinary projects at the University of Sydney. The program provides funding for project teams working across faculties, on topics aligned to SEI Research Themes in two forms;

- Collaborative fellowships funds for teaching relief provided to the School/Faculty of the successful applicants to facilitate the time needed to complete a project
- Collaborative seed funding \$7,500 provided per project as seed funding for a multidisciplinary project to develop new ideas and methods, or link existing individual projects with collaborators across campus.

Four Collaborative Projects were supported by SEI in 2022, and a call for new project proposals was announced in late 2022. Seven of the submissions received were successful, and will commence in 2023.

#### **2022 Collaborative Projects:**

#### **Ecologies of forgotten urban ecosystems**

Professor Kurt Iveson and Professor Dieter Hochuli were awarded funding for a project to document and analyse urban infrastructure as ecological biotopes, and involve the community in recording and exploring urban ecologies. Learn more here.

#### Moving from responsibility to accountability

Dr Tanya Fielder and Dr Alastair Fraser were awarded fellowships to examine how carbon metrics are collected, analysed and reported on. The project evaluated the methods used to track and report on net-zero targets.

#### Powering a Pacific-led renewable energy transformation

Professor Susan Park and Dr Kate Owens were awarded funding to develop a collaborative process for identifying community energy needs in order to facilitate effective, sustainable and just energy transitions in the Pacific.

Learn more here.

#### **Young People and Climate Distress**

Associate Professor Paul Rhodes and Dr James Dunk were awarded fellowships to collaborate with Headspace and a national group of youth advisory leaders to develop a set of resources for clinicians responding to climate distress.



### 5. Events

SEI brings together scholars, industry experts, policymakers, and community leaders to tackle the tough environmental questions. SEI runs monthly workshops, seminars and public events, focused on building capacity and sharing knowledge and ideas amongst our vibrant, diverse community.

In 2022, SEI hosted over 60 events and collaborated and co-sponsored with partners on 17 events.

Attendance at events were over 3000 and listens and views of event recordings over 7500.



SEI researchers also presented at many high profile academic and mainstream events including Director David Schlosberg, SEI Deputy Director Thom van Dooren and SEI Postdoctoral Fellow Christine Winter at Global Humanities Institute, Climate Justice and Problems of Scale and SEI Deputy Director Danielle Celermajer at the Sydney Opera House's Antidote Festival in 2022 on 'Fatal Adaptation'.

#### The 2022 Iain McCalman Lecture

The flagship event for the Sydney Environment Institute is the annual lain McCalman Lecture, celebrating SEI's Co-Founder and former Co-Director lain McCalman's dedication to fostering and pioneering multidisciplinary environmental research. This event highlights the work of early and midcareer researchers at SEI, working across disciplinary boundaries to impact both scholarship and public discourse.

In 2022 SEI collaborated with the Chau Chak Wing Museum, and Senior-curator of the Macleay Collections, Dr Jude Philp, presented the lecture Wilful Ignorance: Pacific Collections, Connections and Equitable Futures. The lecture explored ideas about nature and culture across the Pacific region, and the diverse

learning systems of people who live with the Pacific Ocean. The in-person event attracted 185 attendees and initiated an ongoing partnership with the Chau Chak Wing Museum and SEI which has also involved jointly supported Honours Research Fellows.

Watch the lecture.



Pictured left to right: Uncle Lloyd Walker, Grace Hull, Dr Jude Philp, Prof lain McCalman, Prof David Schlosberg



## 6. Member achievements

2022 was another successful year for the Sydney Environment Institute, our Executive, Research Leads and members. We were delighted to see SEI Deputy Director Associate Professor Thom van Dooren was elected a Fellow of the Australian Academy of Humanities, SEI member Jakelin Troy announced as a Fellow of the Academy of the Social Sciences Australia and SEI member Sophie Webber receiving the Paul Bourke Awards for Early Career Research by the Academy of the Social Sciences in Australia. Research Theme lead Dr Sophie Chao was awarded the 2022 FASS Early Career Researcher Excellence Award and Professor David Schlosberg was awarded the Research Impact Award for the SEI Project FoodLab Sydney.

#### Impact story: FoodLab Sydney

SEI's project FoodLab Sydney has had a significant impact on food insecurity and food justice in Sydney at multiple scales. Building on an ARC Linkage and a City of Sydney Knowledge Exchange grant, as well as research conducted by SEI members on food justice and sustainability it increased capacity for food security in the local government area through the development of better food policy, the development of more diverse and sustainability-focused food businesses, and increased community capacity to creatively respond to markets at unstable and uncertain times.

It exemplifies how multidisciplinary research can be harnessed for impact. Specifically:

- At an institutional level the City of Sydney included the incubator program as the first policy recommendation under the 'Inclusive City – social justice and opportunity' section of the Social Sustainability Policy and Action Plan (released in 2018).
- At the community level it underpinned the development of vibrant 'Good Food Networks';
- At the individual level it supported the development of just and healthy food business for 72 entrepreneurs (41% of participants born overseas, from 17 different countries with almost 50% from households with low income).

SEI celebrates all of the achievements our members have had in 2022, just a small sample of these follow.

#### Sydney Research Accelerator (SOAR) Fellows

- · Associate Professor Thom van Dooren
- Associate Professor Arunima Malik

#### VC Awards

- Professor Dieter Hochuli (as part of the Taronga Wildlife Conservation Degree) for Outstanding Teaching
- Professor Susan Park for Outstanding Research
- Mr Nicholas McKay for Outstanding Contribution to Research Excellence
- Mr Nicholas McKay (as part of the MRFF Frontiers Grant Development Team) for Outstanding Contribution to Research Excellence
- Professor Ollie Jay (as part of the Sydney Early-Mid Career Academic Network) for Outstanding Mentoring and Leadership

#### NSW Environment and Heritage Eureka Prize for Applied Environmental Research

Associate Professor Arunima Malik (as part of a team with Manfred Lenzen and David Raubenheimer) for Excellent in Interdisciplinary

#### Discovery Early Career Researcher Award (DECRA) Fellows

- Dr Sophie Chao Human-kangaroo relations: Reconciling perceptions, knowledges and practices
- Associate Professor Arunima Malik assessing climate risk for future food supply

#### **ARC Discovery Project Grants Discovery Projects**

- Associate Professor Thom van Dooren -Narrative Ecologies of Warragamba Dam
- Professor Susan Park Global Governing Gaps and Accountability Traps for Solar Energy and Storage
- Professor Susan Park Global Governance, Eco-

Justice, and International Grievance Mechanisms.

- Associate Professor Dagmar Reinhardt Using acoustic retroreflection in architecture to improve rooms for speech
- Professors Warwick Anderson and Jakelin Troy -Planetary Health Histories: Developing Concepts
- Dr Tanya Fielder A systemic environmental impact metric for companies and investors

#### Arts and Humanities Research Council (UK) grant

 Professor Danielle Celermajer in partnership with Dr Mihaela Mihai at Edinburgh University
 Interdisciplinary Network on Environmental Emotions: Theory, Testimony, Politics

#### Others

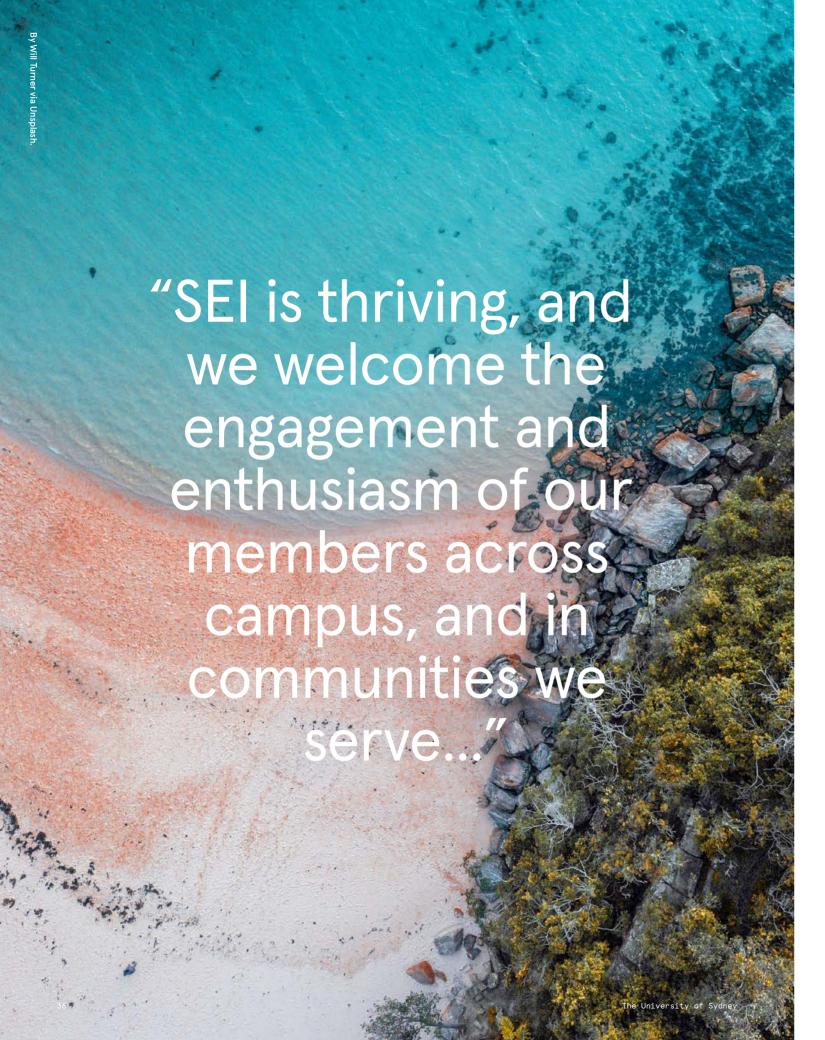
As evidence of the Sydney Environment Institute reach and impact globally, a significant number of members and collaborators were named as world-learning in their fields of research in the 2022 Clarlyate Highly Cited Research List and a Stanford University Study.

The list of world-leaders included;

- Professor Maria Byrne
- · Professor Dale Dominey-Howes
- · Professor Ali Abbas
- · Professor Warwick Anderson
- · Professor Elspeth Probyn
- Professor David Schlosberg

SEI congratulates all of our members, who successfully applied for academic promotion in 2022:

- · Dr Lea Vuong
- · Dr Aaron Opdyke
- Associate Professor Arunima Malik
- · Associate Professor Danika Wright
- · Professor Mark Byron
- · Professor Kurt Iveson



#### 2023 and beyond

After a huge year of change and accomplishment for SEI in 2022, the team at SEI is looking forward to what's to come in 2023. SEI continues to be dedicated to our vision of both examining the current environmental and climate crisis and to enhancing a just and sustainable environmental transformation. There is, in short, much work for us to do...

Importantly, over the past year, the University of Sydney has developed a new ten-year strategy, with participation and input from SEI members. This strategy highlights not only the importance of leadership and research for the public good, but also specific and expanded work on climate change and sustainability. SEI staff and members have long been committed to exactly this mission, and it has been heartening to see such engaged and impactful research on the environmental and climate crises at the centre of the new University strategy. SEI looks forward to leading and collaborating on university-wide endeavours on environmental and climate solutions going forward, and to bringing these solutions to communities, governments, and other partners.

In particular, much of our focus will be coordinating and boosting work around both the impacts of, and responses to climate change – from individual experiences to broad systems transitions. To start the year, SEI is leading a campus-wide effort to map climate-change research across the university, to enable both better collaboration and more thorough impact of the work we do. We will also be reinvigorating the bushfire research network – started after the fires of 2019–20, but comparatively quiet during Covid and three years of La Nina.

SEI looks forward to assisting colleagues from across campus working together on projects in the second year of our successful Collaborative Grants

Scheme – from repairing our climate economies to

decarbonising the health industry. We will be running another competition for collaborative grants mid-year, and look forward to supporting a new cohort of SEI members.

We are, as always, planning a number of event series, including on our growing adaptation work and our environmental and multispecies justice projects. And our work convening conversations and workshops, and training a new generation of multidisciplinary environmental scholars, continues.

SEI is thriving, and we welcome the engagement and enthusiasm of our members across campus, and in communities we serve as we have a real and reconstructive impact on the key problems of our time.



Professor David Schlosberg

Director,
Sydney Environment Institute

