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Message from the Director

2023 was the hottest year of global temperatures on record and saw catastrophic weather events worldwide, highlighting the need for swift and ambitious increase in our research and impact activity to address climate change.

This global perspective gave us cause to reflect on our place in the world, our responsibilities to our communities, and the role we play as climate leaders at local, national, regional and global levels.

Conscious of the urgent need to harness and share rigorous, evidence-based solutions, Melbourne Climate Futures (MCF) launched three research hubs focused on key issues for climate action and transition: the Sustainable Finance Hub, the Climate CATCH Lab and the INPACC Hub, which focus on finance and economy, climate and health, and Indo-Pacific climate capacity development respectively.

What sets these hubs apart is their interdisciplinary focus and commitment to collaboration and co-design with stakeholders - an acknowledgement of the complexity of the problems we face and our desire to collaborate across fields with industry, policy and communities to forge new discoveries and innovative solutions.

Our relationship with policymakers as expert advisers intensified accordingly, reflecting our power to convene and foster partnerships and disseminate our research and expertise. 2023 saw MCF researchers providing policy briefings and presenting at national and global forums as varied as COP28, the G20 summit, and Australia's Chief Medical Officer's Climate and Health Advisory Group.

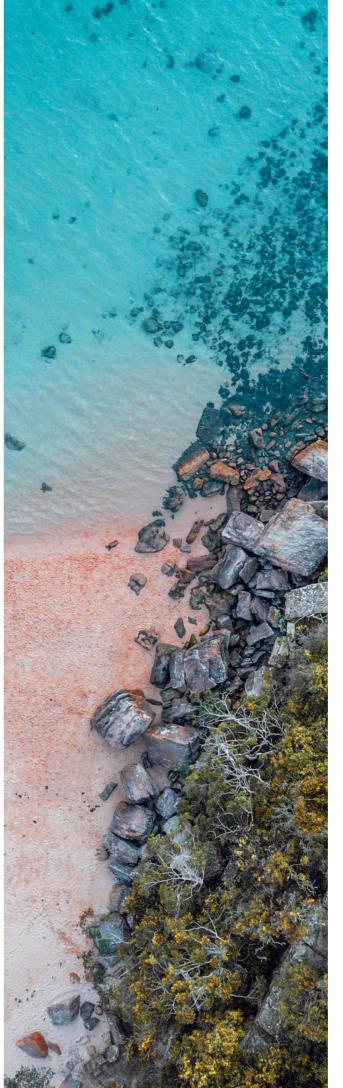
With its increasing profile and ambition, it is necessary to ensure that MCF is collaborating effectively with the diverse members of our community. To this end, an advisory board was established in 2023.

As ever, students are at the heart of everything we do at the University of Melbourne, and it was inspiring to see our interdisciplinary early-career researcher group, the MCF Academy, increase its activities, and an honour to be able to offer a means of supporting the research these inspiring young people are undertaking.

As we embark on another year, MCF will continue to strengthen its ambition, build robust partnerships, and develop impactful research applications alongside our neighbours in the Indo-Pacific region, sharpening our focus around three key areas: transforming the economy towards net zero; building regional climate resilience and capability; and supporting and accelerating just transitions.

Best wishes,

Professor Jacqueline Peel Director, Melbourne Climate Futures



About Melbourne Climate Futures

Melbourne Climate Futures is the University of Melbourne's mission-driven initiative, leading on transformative solutions to the climate crisis for a future worth living.

We bring together research and expertise from across the University and beyond, to learn and educate and provide a trusted, evidence-based guiding voice for policymakers, communities and industry so that we can enact real change in the face of this urgent and complex issue.

Our purpose is to accelerate the urgently needed transition to a positive climate future, using transformative thinking to build resilient and thriving communities nationally and globally, with particular attention to serving our growing Indo-Pacific region. We aim to benefit people and planet through the transformative impact of our research, convening power and capability development.

While we develop inspirational ideas, policy proposals and tools to address the climate crisis, it is vital that the transitions and transformations we make as we strive for greater sustainability are evidence-based, healthy, and equitable.

To this end, Melbourne Climate Futures unites disparate, yet constantly interacting, disciplines – such as health, justice, finance, policy and science – to create integrated solutions.

Melbourne Climate Futures connects and amplifies the depth and breadth of University of Melbourne research, creates a portal to share ideas and collaborate on real action, and empowers the next generation of climate leaders.



INPACC Hub

MCF steers the Indo-Pacific Climate (INPACC) Hub, which leverages efforts in countries across the Pacific, Southeast Asia, and South Asia, to create an expert network that enables research, knowledge-sharing and leadership on adaptation, resilience, and justice across the region to build a climate-resilient Indo-Pacific.

- 4 priority areas
- 7 key activities
- 90 members from across the Indo-Pacific region
- \$150K funding received for inception workshop.

Climate Research Accelerator Program

The <u>CRX program</u> supports interdisciplinary research projects with a high likelihood of making an immediate impact on the climate crisis by providing funding, facilitating capacity-building workshops, and convening researchers and partners across disciplines.

- 16 projects, 65 researchers and 35 external partners
- A\$690K funding distributed
- 6 capacity-builling and engagement workshops.

Climate CATCH Lab

MCF launched the Climate CATCH Lab in partnership with the Melbourne School of Population and Global Health to accelerate the University's climate change and human health research, engagement and education for enhanced impact.

- 9 research streams
- 15 fellowships facilitated
- A\$13.54M funding received.

Australia Awards Fellowship

In partnership with the Melbourne School of Global and Population Health and the Pacific Climate Change Centre (PCCC), MCF convened a <u>seven-week fellowship</u>, funded by the Department of Foreign Affairs and Trade, to improve regional health and climate outcomes in the Pacific region.

- 15 fellows from across the region
- Over 70 internal and external expert presenters, mentors and facilitators
- A\$493,947 funding received.

Sustainable Finance Hub

MCF launched the Sustainable Finance Hub (SFH) to develop a nation-wide expert hub that will investigate means by which we can increase green investment and build the resources required to pay for the sustainability crisis in Australia and the Indo-Pacific region.

- ARC Discovery Project: Advancing Investor Action on **Energy Transition**
- A\$145K funding received.

UNFCCC Conference of the Parties

MCF has had a presence at <u>UN climate negotiations</u> from 2021 to 2023, during COP26 in Scotland, COP27 in Egypt and COP28 in the United Arab Emirates.

- 8 attending researchers
- 3 MCF-led official side events
- 13 researchers spoke on official panel events
- 30 thought leadership pieces.



New University carbon targets

MCF worked alongside the University's Sustainability Team to advocate that new, more ambitious emissions reductions targets be incorporated into the <u>Sustainability Plan 2030</u>. MCF continues to work alongside the Sustainability Strategy Team to improve University approaches.

- Achieve carbon neutral by 2025 (as certified under the Federal Government's Climate Active standard)
- Achieve climate positive status, removing more greenhouse gas emissions than are generated, by 2030.

MCF Research Cluster

MCF convenes researchers from across the University to share ideas and innovations across 12 research themes to promote cross-disciplinary, collaborative climate research.

- 231 research cluster members
- 21 research cluster meetings
- 1 research theme workshop.

MCF Academy

The MCF Academy fosters early and mid-career researchers working in climate-related fields within a diverse intellectual and interdisciplinary community, drawing from all areas across the University to promote a rich exchange of ideas.

- Over 30 graduate researchers
- 11 seminars
- 10 training workshops.

Climate Futures Summit

MCF has hosted two free, full-day Climate Futures Summits, bringing the breadth of University of Melbourne research together with voices from policy, industry, research and community to discuss solution to the climate crisis.

- 2,403 registrants
- 48 speakers
- 11 topics
- 2,988 video views.

Director



Deputy Director, Knowledge Translation and Policy Impact



Deputy Director, Strategic Partnerships and Community Impact



Enterprise Fellow and Head of the INPACC Hub



Lily O'Neill Senior Research Fellow



Arjuna Dibley Research Fellow and Head of the Sustainable Finance Hub



Belle Workman Research Fellow



Rebekkah Markey-Towler Research Fellow



Simon Batterbury MCF Academy Convenor

Rosemary Addis AM

Enterprise Professor and founding

Managing Partner, Mondiale Impact

David Karoly

Emeritus Professor and Councillor,

Climate Council, Australia



Anthony Stark MCF Manager

MCF Advisory Board



Communications Manager

Sharan Burrow AC

Former General Secretary, International

Trade Union Confederation

Executive Director, Original Power





CEO, Next Economy

Neil Salisbury

Co-Founder and Executive

Chairman, NatureCo

Administrator and Project Administrator and Project Support Officer (INPACC Hub)

The effects of a warmed and warming climate reach into every aspect of our lives - locally, nationally and globally.

interdisciplinary

To move swiftly towards a society and an economy that operates with greater sustainability, every aspect of the challenge must be considered and integrated into holistic

Fostering

research

MCF strives to navigate the complex relationship between climate change, energy transition, health and wellbeing, policy and the economy. We develop timely, just solutions that will drive us towards greater sustainability.

By coordinating and integrating the expertise of our University colleagues across all faculties and research institutes, MCF creates a research platform that is greater than the sum of its parts.

Research themes

The MCF research themes align with the areas that are critical to ensuring a timely and equitable transition to a positive climate future and establish a space where researchers from these

This network of interdisciplinary climate change researchers connects climate change practitioners and researchers with the broader public across eleven key research themes:

- Health, wellbeing and climate justice
- Business and finance
- Politics and policy
- Land

- Built and living environment
- Oceans and climate.

disciplines can interact and join together.

- Law and litigation

- Biodiversity
- Water
- Climate communication and education
- Social vulnerability and adaptation
- Climate systems science



the University.

at and beyond the University

Research cluster

and research institutes

The research cluster:

change researchers across the University.

In alignment with these themes, the Climate Futures Research

• Strengthens relationships within and between faculties

Creates a network of cross-disciplinary climate change and

sustainability researchers for collaborative research grant

Connects researchers at the University to external research

sustainability practitioners, the public, and academics both

Supports research training and early career researchers at

funding partners (academic, industry and government)

Provides a portal and focal point for climate change and

Cluster cultivates a network of cross-disciplinary climate



Research Theme

external roundtable



MCF Research Theme leads meetings



Cluster members



interdisciplinary CRX projects funded

Melbourne Climate Futures | Annual Report 2023

Climate Research Accelerator projects

At the end of 2022, Melbourne Climate Futures awarded its second round of funding through its Climate Research Accelerator (CRX) program. The goal of the CRX funding is to support projects to make an immediate impact on the climate problem.

Eight diverse projects received seed and sapling funding to progress their research activities, which brought together interdisciplinary teams from across the University and external partners. The five sapling projects each received A\$40,000, while the seed projects each received A\$25,000.

Project leads participated in a series of three workshops across the 12 months. These workshops focused on stakeholder engagement, understanding and evaluating impact, and media engagement. The CRX culminated in a final showcase where all the project researchers presented their findings. These sessions, which workshopped stakeholder engagement practices, impact and work-in-progress updates, and project showcases, were essential to facilitate spaces where researchers could collaborate in an interdisciplinary way to create novel methods of urgently addressing the climate crisis.



2023 CRX Projects

- Integrating Indigenous design with climate science to inform near-, mid-, and long-term scenarios for the Great Birrarung Parklands
- Rephraming integrated design: towards a more comprehensive software tool that integrates life cycle assessment into the design of buildings, neighbourhoods and cities
- Reading Climate: Indigenous literature, school English, and climate justice
- Assessing the potential of recycled glass for greener infrastructure
- The changing risk of very rare to extreme floods in a warming climate
- Biodiversity finance: leveraging private capital to protect nature
- Developing a Spatial Index and Dashboard of Electric Vehicle Solar Charging Potential for Decarbonisation
- The Living Archive of Aboriginal Art: Indigenous artmaking for a better climate future Scaling regenerative agriculture



Climate CATCH Lab

Climate change is the single biggest threat to health and healthcare systems. The <u>Climate CATCH Lab</u> accelerates the University of Melbourne's climate change and human health research, engagement and education for enhanced impact.

A joint initiative of the School of Population and Global Health, Melbourne Medical School, and MCF, the Climate CATCH Lab is a collaborative interdisciplinary network of researchers, educators, practitioners and strategic thinkers, advancing knowledge and action at the nexus of climate change and health across nine streams.

It does this by:

- Fostering and advancing interdisciplinary and multi-sectoral research
- Mobilising and building resources and advocacy tools for education, research and action
- Creating and sharing knowledge to inform public, policy and scientific
- Promoting knowledge exchange and advocacy with students, health practitioners, researchers, policy makers and communities.



MAP start-up sponsorship

Each year, MCF sponsors one Melbourne Accelerator Program (MAP) start-up that aims to address the climate crisis. In 2023, MCF sponsored ClimaSens, a climate risk analytics startup that aims to help organisations transform climate risk into climate resilience through its analytics platform. It provides users with climate insights data visualisation and analysis to understand climate-related risks to people, places and assets using historical, present and future climate information.

ClimaSens leveraged its MAP program support to receive \$5 million from Google.org's Impact Challenge on Climate Innovation to partner with New York's Urban Systems Lab (USL) to combat current and future climate risks by developing and scaling an Al-powered climate risk evaluation tool built on multiple urban climate hazard models.

MAP is the University of Melbourne's flagship entrepreneurial initiative and is Australia's oldest university-aligned accelerator program.





To accelerate the transition to a positive climate future, it is vital that a range of stakeholders – governments, intergovernmental bodies, business and industry – are able to access and leverage the research and expertise that the University has to offer.

MCF provides a portal to this expertise, using its convening power and influence to enable a two-way relationship between academia and application in practice, and advising policymakers at all levels of government.

COP28

A number of University and MCF experts attended COP28 in Dubai, including Professor Jacqueline Peel, Professor Kathryn Bowen, Dr Janine Felson, Dr Kate Dooley, Professor Marcia McKenzie and Associate Professor Cathy Oke. In addition to participating in and observing negotiations and conferring with policymakers on the ground, University experts presented at a range of official COP28 side events:

- Child Survival at the Centre of the Climate Crisis, featuring Kathryn Bowen
- Breathing for a Better Tomorrow: Engaging health professionals and civil society for clean air and healthy climate, featuring Kathryn Bowen
- Advancing Climate, Health, and Equity Outcomes through Local Action in the Indo-Pacific, featuring Kathryn Bowen
- Asian Development Bank side event, featuring Kathryn Bowen
- 8th Technical Expert Dialogue in the New Collective Quantified Goals, featuring Janine Felson
- Global Goal on Adaptation first informal consultation, featuring Janine Felson
- Leaders Roundtable on Implementation of HLEG Report on Integrity Matters (UNSG), featuring Janine Felson
- Large Ocean States: Resilience and adaptation, featuring Janine Felson
- Achieving Corporate Net Zero in Australia: What role for carbon credits?, featuring Kate Dooley

With MCF researchers on the ground, we captured the latest developments and thought leadership on our <u>COP28</u> webpage

Sustainable Finance Hub

On 5 September 2023, MCF launched the <u>Sustainable Finance Hub (SFH)</u> to develop a nation-wide expert hub that will investigate means by which we can increase green investment and build the resources required to pay for the sustainability crisis.

Sustainable finance is the practice of integrating environmental, social and governance (ESG) factors into financial system decision-making. It aims to align the financial system with the goals of sustainable development and climate action, while also enhancing financial performance and resilience.

The SFH team employs sustainable finance as a powerful driver of positive change for communities, governments and the economy. It conducts high-quality interdisciplinary research on sustainable finance and its impacts, develop tools and frameworks to support practitioners and policymakers, and engages and educates decision-makers to enable them to adopt science-informed approaches to sustainable financing.

SFH is a team of researchers and practitioners who are passionate about advancing sustainable finance in the Asia-Pacific region and beyond. It will use its independence and expertise to support policymakers and finance leaders to lift the ambition, coverage and equity of the sustainable finance transition.

In 2023, SFH received: a A\$20K Melbourne Law School–National University of Singapore collaboration grant; a A\$100K Faculty of Business and Economics partnership grant; and a A\$25K University of Melbourne Early Career Researcher grant.



Dr Arjuna Dibley launches the Sustainable Finance Hub.



National Health and Climate Strategy

MCF researchers including Professor Kathryn Bowen and Dr Belle Workman contributed to Australia's first National Health and Climate Strategy to ensure the nation's health system can meet the needs of Australians in the face of a changing climate.

Department of Foreign Affairs and Trade (DFAT)

MCF hosted the Australian Climate Ambassador and representatives from DFAT and the Department of Climate Change, the Environment, Energy and Water (DCCEEW) for a roundtable discussion on climate finance, designed to explore key issues and opportunities as Australia prepares to potentially host COP31 in 2026. The subsequent briefing notes have been shared with government and across research institutions.

UN Oceans Treaty

MCF Enterprise Professor Janine Felson played a key role in negotiating the 2023 UN Oceans Treaty, adopted by all 193 UN member states for conservation and sustainable use of biodiversity in over two-thirds of the ocean.

MCF partners

Other partners include:

- G20 Health Working Group
- World Health Organization
- Federal Government's Chief Medical Officer's Climate and Health Advisory Group
- City of Melbourne
- Victorian State Government, VicHealth (MCF received \$209K funding)
- Asian Development Bank
- International Universities Climate Alliance
- Cambridge Zero
- Government of Kiribati
- First Nations Clean Energy Network
- UN Global Compact Australia
- UN Framework Convention on Climate Change, Regional Collaboration Centre (Asia and Pacific)
- Pacific Climate Change Centre

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MCF is empowering current and future climate leaders to increase their impact by building networks and programs that allow them to share knowledge, collaborate on projects and accelerate a transition to a safer, healthier future for people and planet.

This work is central to achieving the University's goal to lead, convene and collaborate through strategic partnerships on a global scale.

INPACC Hub

The Indo-Pacific Climate (INPACC) Hub leverages efforts in countries across the Pacific, Southeast Asia, and South Asia, to create an expert network that enables research, knowledge-sharing and leadership on adaptation, resilience, and justice across the region to build a climate-resilient Indo-Pacific.

The INPACC Hub will collaborate with domestic and regional partners to drive co-designed activities across four priority areas:

- health
- governance and regulation
- agriculture and water
- just energy transitions.

With A\$150K funding provided by the Australian Government's Department of Foreign Affairs and Trade, MCF hosted 40 experts and practitioners from across the Indo-Pacific at a three-day inception workshop in Bangkok in November 2023.



INPACC Hub key activities

- Co-produce integrated assessments of food and agricultural, health, energy, and climate impacts and needs for the Indo-Pacific
- Offer scholarships, fellowships and exchanges to place researchers, practitioners and small organisations within partner organisations
- Create a database of case studies and examples of best practices from the Indo-Pacific region, using diverse and innovative models of communication for impact
- Offer training on rapid evidence synthesis and policy-brief writing to researchers, practitioners, and other key groups
- Offer training for journalists and policymakers across all levels of governance on basic science and solutions
- Translate global-level assessments for particular applicability to Indo-Pacific countries for targeted stakeholder groups
- Pilot loss and damage assessment methodologies for representative countries across the region with a focus on non-economic loss and damage.

At the inception workshop, participants:

- Shared effective examples of climate action across the four focal areas
- Discussed the regional needs and gaps, and identified mean by which to address them
- Co-designed refined and prioritised key activities relevant to its priority areas.

Leveraging this collaborative activity, the INPACC Hub will accelerate transformative climate-resilient development and ignite change for a sustainable future in the Indo-Pacific, furthering the University's ambition to effect positive outcomes in the region.

Australia Awards Fellowship

In November, the University welcomed 15 researchers and policymakers from the Asia-Pacific region to a six-week <u>Australia Awards Fellowship</u> on climate, health, and equity training, with the goal of improving regional health and climate outcomes.

The program, <u>funded with A\$493,947 from the Department of Foreign Affairs and Trade</u>, was designed and presented by MCF, Climate CATCH Lab, and the Melbourne School of Global and Population Health, in partnership with the Pacific Climate Change Centre (PCCC).

The training program, involving over 70 internal and external expert presenters, mentors and facilitators, enabled knowledge exchange and enhanced capabilities through mentoring. It assisted the fellows in developing country-specific policy and practical climate solutions to implement post-program.

Fellows met and engaged with other networks, learned about Australian First Nations history and natural environments, and contributed to major national and global knowledge forums.

The fellowship helped elevate regional voices on climate and health, and laid the foundations for a regional network of climate change and health expertise, to continue meaningful collaboration that informs climate solutions at local, country and regional levels.



The Australia Awards Fellows are welcomed at Melbourne Connect.

MCF Academy

Following on from its launch in July 2022, the MCF Academy continued to build its network and strengthen its program in 2023. The MCF Academy fosters early and mid-career researchers within a diverse intellectual and interdisciplinary community, drawing from all areas across the University to promote a rich exchange of ideas. The group comprises more than 30 graduate researchers, representing multiple disciplines, who work in climate-related fields.

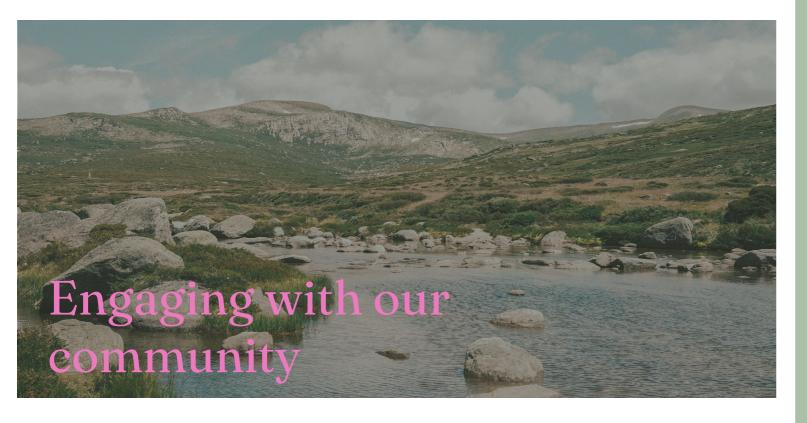
To further facilitate interdisciplinary collaboration and build applicable skills, the MCF Academy ran a series of 11 seminars and 10 training sessions in 2023, increasing researchers' engagement across fields and their capacity to create real impact.

Feedback from the members over the course of the year suggested that the academy provided them with a unique opportunity to collaborate and build community within their cohort



The MCF Academy cohort of 2023.

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To increase the University's research impact and reputation as a climate leader, Melbourne Climate Futures provides a portal to University expertise, by translating in-depth research into accessible content and thought leadership and providing opportunities for stakeholders to learn and interact with University researchers through events and collaborations.









30,027 website visitor sessions

Climate Talks podcast

Each season, the <u>Climate Talks podcast</u> follows the journey to the annual UN Conference of the Parties. Each episode, the hosts present the latest COP news and interview experts to discuss different topics related to the annual global climate talks – including adaptation, mitigation, climate science, biodiversity, loss and damage, sub-national governments, international and domestic Australian politics.

In 2023, Climate Talks episodes were listened to 2262 times and won two Signal Awards – gold for Sustainability & Environment and silver for Public Service & Social Impact – and ranked second in Feedspot's top 10 Australian climate change podcasts.





Climate Futures Summit

On 10 October 2023, MCF hosted its second annual <u>Climate</u> <u>Futures Summit</u> at Melbourne Connect. It brought the breadth of University of Melbourne research together with voices from policy, industry, research and community, to discuss issues around the theme, Transition to transformation, putting the challenges of transition front and centre.

Panel topics:

- Biodiversity, oceans and climate
- Paying for the climate crisis
- The human cost of a warming world
- Envisioning Australia and the region's energy future
- Leadership, government and climate governance.

Climate Futures Summit















registrants



211

in-person

attendees



894 online attendees



24 speakers



custom event



1,394 post-event recording views













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2024 Priorities

In 2024, MCF will continue to build on the strong foundations it has laid by raising its aspirations across strategic climate action areas. We will expand and strengthen our collaboration with partners who share our values from industry, other institutions, government, philanthropy and community.

Transforming the economy towards net zero

MCF will continue to develop interdisciplinary research within the Sustainable Finance Hub, expanding its networks and outreach to industry and policymakers.

It will provide a series of professional development short courses, aimed at business practitioners and decision-makers, so that we can increase uptake of University climate expertise and insights that can be applied in real-world settings.

Building regional climate resilience and capability

MCF will continue to increase its reputation as a climate leader in the Indo-Pacific region, leveraging its networks to share knowledge and increase capacity.

It will shepherd the INPACC Hub toward a fully realised, sustainably funded co-designed regional network of experts and practitioners.

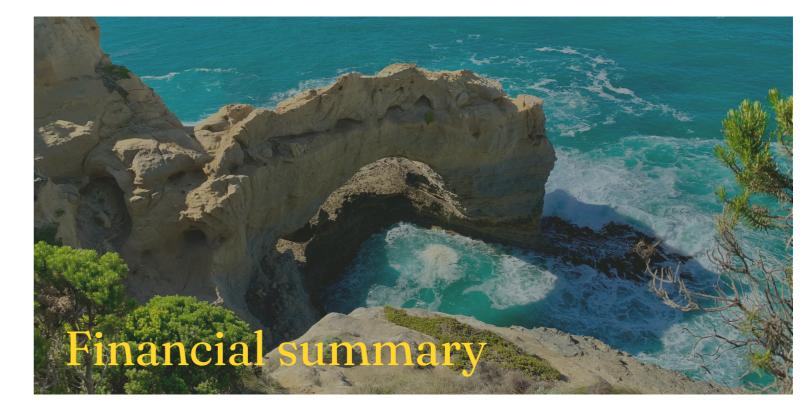
MCF will also seek to establish a university alliance of institutions whose aim is to support, advise and influence policy makers in Australia's bid to host COP31 in 2026.

Supporting and accelerating just transitions

MCF will continue to foster interdisciplinary research that ambitiously tackles the challenges the climate presents to people, planet and communities, including our First Nations communities.

It will continue to increase its influence on policy and industry to inform and enable accelerated solutions that are fair, safe, healthy and equitable.

MCF will participate in an EOI being led by Curtin University for a Centre of Excellence on Just Energy Transitions.



	2021	2022	2023	Total 2021–2023	
INCOME					
Core funding*	1,500,000	1,500,000	1,500,000	4,500,000	
EXPENDITURE					
Operating and administration expenditure					
Directorate salaries	519,382	818,684	743,455	2,081,521	
Admin and general	708	12,281	6,849	19,838	
Events and communications	33,584	200,306	78,936	312,826	
Sub-total operating expenditure	553,674	1,031,271	829,240	2,414,185	
Research Enabling Expenditure					
Salaries (research- enabling staff only)	212,261	420,509	685,539	1,318,309	
Seed funding	400,000	290,000	-	690,000	
Partnership development	17,446	77,727	19,281	114,454	
Other	-	-1,061	-4,760	-5,821	
Sub-total research enabling expenditure	629,707	787,175	700,060	2,116,942	
TOTAL EXPENDITURE	1,183,381	1,818,446	1,559,300	4,531,127	
Net Surplus/Deficit	316,319	- 318,446	- 29,300	- 31,127	

^{*} Melbourne Climate Futures has been allocated A\$7.5 million over five years under the Advancing Melbourne strategy. Figures have been calculated based on an average budget of A\$1.5 million per annum.



Melbourne Climate Futures

Connect with us:

- **⋒** unimelb.edu.au/climate
- in linkedin.com/showcase/MelbourneClimateFutures
- **y** twitter.com/MCFunimelb