THE WORLD PAUSED. WE DIDNT.
Now more than ever, we believe in the power of people and science to help us build back better.
At MSDI, we’re passionate about creating a better world.

That’s why we’re working to advance the wellbeing of people and planet for current and future generations, here in Australia and around the world.

We work to understand, influence and transform systems to achieve sustainable development in Australia and our region. We do this by collaborating with government, industry, academic, and civil society partners to build knowledge and capacity, and drive practical change.

Our partnership approach has seen us win awards for our impact focus.

But that’s only the part of our story.

We’re also proud to be part of Australia’s largest and most international university — Monash University. In collaboration with the ten Monash faculties, we bring together the strength of Monash in impact-focused projects.

And there’s no time to lose. With ten years remaining to achieve the Sustainable Development Goals, we need transformational change. Now more than ever, we believe collaboration and partnerships are the key to success.

With over 180 researchers, educators, doctoral students and professional staff, and over 200 global partners, we’re establishing transdisciplinary teams, co-producing knowledge and identifying pathways and innovative solutions to help the world achieve the 2030 Agenda for Sustainable Development.

We hope you enjoy our Annual Report, which paints a picture of the breadth and depth of work we’re undertaking to help create a better world.

We invite you to join us.
Message from the Chair

2020 was a terrible year for so many people around the world. From the massive health impacts of the virus to the economic devastation, it brought great disruption. We're now seeing countries begin to recover, but challenges remain and one of the biggest of those is the impact of the pandemic on our progress towards the Sustainable Development Goals.

The global pandemic has set us back in many areas: from health to gender equality, food security and economic development. All around the world, as we seek to build back better, we need to take into account our goals for economic prosperity, for social fairness, and for environmental sustainability.

From embracing different work practices, to being more flexible in how and where we work, to targeting net zero emissions and doing what is needed to build a fairer society – there are real opportunities for us here in Australia to learn the lessons of the pandemic. Australia is in a position to use its sun and its wind to power our industry. We’re in a position to create a fairer and more equal society that benefits us all. However, we’re way behind in our carbon transition and we’re not doing what a lot of other countries are doing, which is investing a large part of our stimulus money post-pandemic into the green economy.

I believe MSDI has a really important role to play in this. We have experience across multiple disciplines and a good understanding of how to connect research and new knowledge with action at a government or business level.

In education, our audiences are growing, and our masters, executive education courses and doctoral students are making a real difference. If we’re going to build back better, we’re going to need a better educated workforce and leaders who really understand sustainability. Our research team is working to localise the Sustainable Development Goals to Australia, and in partnership with our policy and impact team, is translating that into change in government and business. Our BehaviourWorks Australia team has been advising businesses and government about the changed behaviours that we learnt during the pandemic and on how to optimise the lessons learned moving forward. Our ClimateWorks Australia team is working with businesses that are targeting net zero and changing what they’re doing as a result of the past year.

MSDI is in a positive position to make a real difference and now more than ever has a role to play to get Australia back on track to achieving the Sustainable Development Goals.

Professor John Thwaites, Chair MSDI
Director’s report

Message from the Director

2020 was a year of enormous disruption. It began with devastating bushfires here in Australia and shortly thereafter we found ourselves confronting a global pandemic. Here at MSDI, along with the rest of the global community, we faced those disruptions and found ourselves having to adapt. It meant embracing new technologies, changing the way we did our work, and finding new ways to collaborate. Indeed, with our colleagues around the world, we learned that we could work very effectively using online platforms, enabling international transdisciplinary collaboration to continue, despite the impact of the pandemic.

In 2020, we also took the opportunity to develop a new strategy for MSDI. Since we were unable to come together for conventional strategic planning meetings, we facilitated the process virtually, in big groups and small, to set a clear direction for the coming five years. We agreed together on the core purpose for our work: to advance the wellbeing of people and planet, for current and future generations.

We also took the opportunity to pause and to reflect; to imagine different ways of living and new pathways to the future. We’re seeing examples of that across the board, with people using the disruption to propose new possibilities, whether that’s to accelerate pathways to net zero emissions or embracing the opportunity to build back better.

If 2020 taught us anything, it is that our ways of living are out of balance with nature and drastically need to change. It has reinforced the importance of the work we do here at MSDI, which is to achieve sustainable transitions and change human behaviour to tackle the great sustainable development challenges of our time. That nexus between systems change and behaviour change is at the heart of the work we do.

I’d like to take this opportunity to thank all of our staff, our students, and our partners for the work they did through the year. We came through it well, we continued to grow, evolve and make changes to ensure that we remain relevant to the big public policy questions facing our society. The energy, creativity and hard work of all our staff, students and partners has meant that we successfully navigated what was a challenging year.

We’re now even better placed to make an impact for a better world as we look ahead towards 2021 and beyond.

Professor Tony Capon, Director MSDI
2020: An Unprecedented Year

In a year that saw both unprecedented bushfires here in Australia and a global pandemic spread around the world, MSDI responded and adapted — lending our expertise and knowledge to help the world recover and build back better.
PLANETARY HEALTH

2020: AN UNPRECEDENTED YEAR

Can we recover from the pandemic and bushfires in ways that advance the wellbeing of people and planet?

Facing the Anthropocene

Bushfires. Floods. A pandemic. These are all symptoms of the Anthropocene. Signs that human ways of living are out of balance with natural systems. Together, they demonstrate the challenges we face as a community. And we will see more of them, unless we embrace sustainability transitions. So, can we recover from the global COVID-19 pandemic in a way that advances the wellbeing of both people and planet?

MSDI is working with partners across Monash and around the world to improve understanding of interlinkages between human and environmental health, and to impact policy so we can build back better.

A healthy, fair and regenerative recovery

MSDI’s RISE program is an important example of our contribution to planetary health. But that’s not where our work ends. We’ve been leading the way in Australia and our region to champion planetary health. In 2020, we worked closely with our colleagues from Monash Medicine, Nursing and Health Sciences including Professor Karin Leder and Professor Jane Fisher to incorporate planetary health in research and education. Associate Professor Briony Rogers is leading a cross-Monash team developing a new multi-million dollar program on bushfire resilience with vulnerable communities in NSW. And, we’re leading the development of a multi-partner National Health and Medical Research Council (NHMRC) bid for a national research network on human health and environmental change. Also in 2020 we produced a number of influential opinion pieces on planetary health.

MSDI Director Tony Capon co-authored a Medical Journal of Australia report on climate change and health, which was distributed to all doctors in the Australian Medical Association. Tony also chaired the launch of the report, which was a collaboration between the Lancet Countdown on Health and Climate Change and the Medical Journal of Australia. Multiple opinion pieces were published in The Conversation and MJA Insight, on the environmental footprint of healthcare, the connections between the pandemic and bushfires, and a greener, healthier recovery.

MSDI’s Selina Lo, Anna Skarbek, and Tony Capon co-authored a paper for the Medical Journal of Australia on how Australia might recover from the pandemic. And Tony co-authored a piece for the Medical Journal of Australia website about building back better, using healthier and greener solutions.

MSDI’s work across multiple projects has raised awareness of the ways in which the environment and human health are linked. In 2021, we’ll be ramping up our work in this space with major new initiatives, and working to position planetary health at the heart of a fair and regenerative recovery.

Explore more

🔗 Recovery from the pandemic: evidence-based public policy to safeguard health by Selina Lo, Anna Skarbek and Tony Capon

🔗 Beyond COVID-19: a healthier, greener, fairer world is possible by Fiona Armstrong and Tony Capon

🔗 Tony Capon talks with the Royal Society of NSW on Safeguarding health in the Anthropocene epoch

🔗 Tony Capon talks with the National Rural Health Alliance about planetary health and implications for rural and remote communities

Are you interested in learning more about how human health and the environment are linked? Read Understanding Planetary Health by MSDI Director, Tony Capon.
2020: AN UNPRECEDENTED YEAR

What did our experts have to say about the pandemic and the global recovery?

In a year when the pandemic and unprecedented bushfires captured the world’s attention, MSDI’s experts were called on to participate in the national and international conversation and share our knowledge. We provided commentary on a range of serious and not so serious topics tackling various aspects of the pandemic experience. We received over 1400 media hits through the year, reaching a potential audience of 4 billion worldwide and with an estimated media value of AUD$36.9 million.

Understanding human responses to the pandemic

We helped the public understand their emotional and behavioural reactions to the unexpected, we examined whether we could stick to lockdown restrictions, and how we were responding to public health messaging.

Through the year, MSDI’s experts were called upon to provide insights on a range of topics, such as how to make mask-wearing a habit; how to get the best out of telehealth services; and our exercise habits during lockdown. We explored freedom protests and online activism; how great upheaval can be the best time to embed new habits; and what former prisoners could teach us about emerging from lockdown. We also looked at how the panic run on toilet paper could lead to much bigger waste problems than we realise.

Our examination of stockpiling and panic buying of toilet paper also drew worldwide attention, as did our response to the pandemic.

Examining attitudes and approaches

Our Survey of COVID-19 Responses to Understand Behaviour began with what Australians thought about the impending pandemic and continued to monitor our behaviours and attitudes in several studies as the year progressed. Australia’s most well-known health journalist, Dr Norman Swan, looked at some of our findings and behavioural responses on trust, messaging and compliance in a segment for ABCTV’s 7:30.

Shortly after the apartment towers lockdown took place in Melbourne’s north, we explored ways we could better communicate health messaging with Culturally and Linguistically Diverse (CALD) Communities. And when Victoria entered Stage 4 restrictions, we examined whether we could really stick to them.

As the state of Victoria unveiled its roadmap to ease restrictions, we explained how getting tested for COVID-19 would give confidence to decision makers and help speed up the process, and examined how we could continue our good routines and habits post-lockdown.

With a view to recovery, we provided insights on how we could use the pandemic as an opportunity to address climate change. We explored how policy initiatives like HomeBuilder could help both climate and economy and prioritise sustainability as we rebuild, and how to take stock of where we are and use the SDGs as a blueprint to build back better.
A new era of remote education

In the wake of the pandemic, national border closures and campus shutdowns led to an overnight transition to remote learning. On the very first day of orientation in 2020, our educators got the news that all our education was to shift online, effective immediately. At MSDI, we were already designing and delivering online and in blended format courses, but the pandemic supercharged our efforts to ensure that our students received the same high-quality education they were used to.

Teaching Online Meet Ups

MSDI convened Teaching Online Meetups (TOM) to support educators during the transition. These meetups were a series of regular online sessions attended by academic and professional staff at the Institute. The initiative gained momentum across 2020 and later expanded to include other Monash faculties.

Our educators used the forum to share their online teaching experiences and test ideas. The group worked together to get hands-on with new technology, trial learning activities and become confident digital educators. TOM was critical in supporting staff to successfully transition our teaching online. The result was sustained delivery of a high-quality education experience for students. We’re now continuing to innovate together, while seeking opportunities to share key insights, including publishing what we’ve learned.

Delivering to students’ expectations

Over the year, we taught more than 650 students across 12 units of study online, spanning sustainable business and innovation, to climate change and carbon management strategies. Our interdisciplinary education project partners — from Telstra, to Australia Post, the Global Health Alliance Australia and many more — also helped students identify, analyse and address ‘real-world’ complex, sustainability challenges.

Students gave high ratings to our educational offerings, despite the shift to online teaching, with a highlight being the Master’s Unit on Behaviour Change. This unit saw student satisfaction score more than 4.7 out of 5.

Masters of Environment and Sustainability

The Master of Environment and Sustainability celebrates its culturally diverse and interdisciplinary cohort, and interactive peer learning is a cornerstone of the course. A rapid shift online threatened some of this social learning; and our team had to adapt, fast. This included basic strategies, such as pre-recording lectures to ensure live classes had much more time for peer interaction; adaptation of our existing interactive activities to work well in digital form; and, over the year, experimentation with brand new, online-specific learning activities, including remote site visits, whole-class role-play simulations and more. These preserved the diverse and rich peer exchange which makes the Masters special.

As we move to more blended learning formats in 2021, and back into the classroom, our team will continue to take what we learned from the challenges of 2020 into the future.
2020: AN UNPRECEDENTED YEAR

How do we speed up global, equitable and lasting solutions to the pandemic?

A shared belief in global cooperation

The COVID-19 pandemic has confronted the world with urgent and unsolved challenges. It has claimed more than 2.7 million lives and disrupted societies. Enter the Lancet COVID-19 Commission — a group of eminent global scholars, public health professionals, economists, and policymakers convened by the world’s most prestigious global medical journal. The Commission is dedicated to speeding up equitable and lasting solutions as part of the global response to the pandemic.

In 2020, MSDI Chair Professor John Thwaites became the only Australian appointed to the Commission. Chaired by renowned economist Professor Jeffrey Sachs, the Commission is also supported by several task forces. Professor Thwaites, along with Professor Liam Smith, Director of MSDI’s BehaviourWorks Australia team, were also appointed to the Public Health Task Force.

Lessons and resources shared

In 2020, John Thwaites, along with Jeffrey Sachs, chaired a roundtable discussion with Australia’s Department of Health, State and Territory Chief Health Officers, and key health experts from leading medical research institutes. With Australia having experienced lower infection and death rates than many comparable OECD countries, these successful strategies were shared with other countries through outputs of the Commission.

As an interdisciplinary initiative spanning health sciences, business, finance and public policy, the Commission spent the year addressing complex, interrelated challenges brought about by the pandemic. This included recommendations for suppressing the pandemic, addressing humanitarian crises arising from the pandemic, addressing the financial and economic crises as a result of the pandemic, and moving towards rebuilding an inclusive, fair and sustainable world.

More regional and global webinars are on the horizon, and public reports are being planned for 2021. The Commission and its task forces are on a mission to collect evidence, raise awareness through media, produce papers in The Lancet and other journals — all to harness the best knowledge and expertise in the global effort to respond to the pandemic, ensuring no one is left behind.
Rethinking the message
As COVID-19 began to spread across Melbourne in mid-2020, Victoria’s Chief Health Officer, Dr Brett Sutton, said it was essential for the government to properly engage with multicultural communities. The pandemic brought into sharp relief the gap that had long existed in health communications with culturally and linguistically diverse (CALD) communities.

A team of behavioural researchers from MSDI and health researchers from Monash Medicine reached out to CALD community leaders in Australia to investigate the significant challenges that existed in communicating health behaviour change information to CALD communities. Our researchers also wanted to develop evidence-based strategies that could inform and empower those communities to adapt their behaviour in line with COVID-19 recommendations.

A dialogue with communities
Collaboration is fundamental to successful health promotion. And CALD community leaders, advocates and bicultural health workers have a wealth of knowledge and experience to share. In 2020 our health and behaviour change scientists from Monash held a series of dialogues with community and advocacy leaders from a range of backgrounds. We worked with leaders from the Chinese Community Council of Australia, Islamic Council of Victoria, Ethnic Communities Council of Victoria, Federation of Ethnic Communities Councils of Australia, Victoria’s South Sudanese community, and other multicultural community leaders. Using participatory action research methods, we co-produced a paper from data collection through to academic publication. Our work was featured in media across the country including in The Conversation, Monash Lens, SBS, community radio and Phoenix TV.

Our research supported calls for the formation of a national health advisory body representing CALD communities. It also played a role in making the case to establish a representative advisory group. When the national CALD COVID-19 health advisory group was formed by the Australian Government, co-authors Monash Medicine’s Professor Helen Skouteris and Federation of Ethnic Communities’ Councils of Australia (FECCA) CEO Mohammad Al Khafaji were invited to be founding members. Our article in The Conversation also prompted conversations about CALD community engagement in government health departments. Our team has engaged in a learning exchange with the Qld Department of Health Communications and the Commonwealth Department of Health.

In 2021 we’ll be continuing our collaboration with CALD community leaders and will share our insights with government and community stakeholders. We will also be contributing to the CALD COVID-19 Health Advisory Group’s work to support the Australian Government’s pandemic response.

Read more
♪♪ We asked multicultural communities how best to communicate COVID-19 advice. Here’s what they told us.
How can behavioural evidence improve government policy responses to COVID-19?

Human behaviour in the COVID-19 response
Throughout the pandemic, Australians have generally been willing to take up public health behaviours when recommended by health authorities. But levels of adherence have varied widely: social norms have influenced mask-wearing, and a perceived lack of risk and social awkwardness have influenced physical distancing with family and friends. In order to respond effectively, policymakers need to understand and change public behaviour during a rapidly changing crisis like the COVID-19 pandemic. But, they often lack the necessary information and capacity to affect change.

Insights for policymakers, now
MSDI helped set up the Survey of COVID-19 Responses to Understand Behaviour (SCRUB) to measure Australians’ behaviours and attitudes during the pandemic, and provide rapid behavioural evidence to support policy responses to COVID-19.

Conceived by MSDI and other volunteers at the Rapid Effective Action Development Initiative (READI) our survey tracked insights from Victorians and other Australians every three weeks starting at the height of Australia’s first wave in March. Questions included: What actions are people taking to keep themselves safe? What are peoples’ experiences of mental health and wellbeing day-to-day? To what extent do people feel supported by government programs such as JobKeeper? What kinds of health behaviours do people think are more or less effective at stopping the spread?

Findings from each survey wave attracted national media attention, and were disseminated throughout the Victorian Government, to support evidence-informed policy responses.

The availability of rapid behavioural evidence can meaningfully inform policy responses to crises like COVID-19, as evidenced by 20,600 responses collected from Australians throughout the year, and decisive government action.

In 2021 our further analysis will inform future global catastrophic risk preparedness and response efforts, and support long-term sustainable recovery in Victoria and Australia.
2020: AN UNPRECEDENTED YEAR

How do we build back sustainably and equitably after COVID-19?

Once-in-a-lifetime opportunity

How will the world be different after COVID-19? What could a global recovery look like? There is no doubt the pandemic will have a lasting impact, but it also provides a once in a lifetime opportunity to re-shape society for the better. In August 2020, Monash University Vice-Chancellor, Professor Margaret Gardner, hosted a special online event with world renowned economist and chair of the Lancet’s COVID-19 Commission, Professor Jeffrey Sachs. Facilitated by MSDI Chair, Professor John Thwaites, the webinar explored what a roadmap to recovery could look like.

A roadmap to recovery

The event attracted over 550 participants who watched in real time as Professor Sachs discussed the geopolitical, digital and ecological forces at play during the pandemic and how we are at another ‘hinge point’ in human history. Professor Sachs talked about the importance of the Sustainable Development Goals, fair climate objectives, and global cooperation as part of the COVID-19 roadmap to recovery. Professor Margaret Gardner also spoke about the role of Monash University and how universities more broadly can assist during this time. The speakers explored the social and economic changes required post-COVID which could have a positive impact on people and the planet. The session also provided Monash with the opportunity to announce and celebrate the appointment of Professor Sachs as a Sir Louis Matheson Distinguished Visiting Professor.

The webinar attracted participants and viewers from Australia and around the world, including Japan, Indonesia, Germany, China, Singapore and the United States. The recording of the event has been viewed over 1000 times. The event was organised by Monash’s External Relations, Development and Alumni team with the support of MSDI.

Explore more

Watch the webinar
How did the MSDI team respond and adapt to COVID-19?

In March 2020, along with the rest of the nation, Monash and MSDI received the order to lockdown in response to the COVID-19 pandemic. Our priority was ensuring consistency for our partners and stakeholders, and that our staff and students could continue to do their work in a supportive environment. Our Operations team jumped into action, coordinating our move out of the office and ensuring that all staff had the necessary technology and equipment to work from home.

Throughout 2020, we used remote methods of collaboration, from Zoom, to Slack, Mural and Miro, and virtual tools for whiteboarding, brainstorming, co-design and facilitation. A lot of our collaboration work moved online, and our Education Team rapidly transitioned to online teaching.

MSDI’s flexibility before the pandemic helped us transition and adapt relatively well, but the change wasn’t without its challenges. Many of our staff and students, particularly those with international ties, felt the impact of isolation. We embraced new ways of staying connected, and worked collectively to nurture a positive culture. This included virtual catch ups, cross Institute music, digital cooking classes, ‘coffee roulette’, creativity workshops and staff wellbeing days.
Climate Action

We’re bridging the gap between research and action so we can accelerate Australia’s transition to net zero emissions.
How can Australia reach net zero by 2050?

Producing the evidence
To keep global warming below 2 degrees, we must move quickly to net zero emissions. In a year when a global pandemic raged across the planet, dealing with climate change might seem too great a challenge. Yet we found the world could grapple with both crises. In 2020, our ClimateWorks Australia team released a major study that showed how major sectors of the Australian economy can reduce emissions to keep warming below 2 degrees, and strive for 1.5 degrees. What’s more, as the country looks to recover from COVID-19, our work showed Australia could rebuild the economy while setting up for a transformational decade of climate action.

ClimateWorks’ seminal Decarbonisation Futures report shows how technologies in each sector can achieve climate goals in Australia while rebuilding the economy for a resilient future.

A climate-friendly recovery is possible
Our team disseminated the report far-and-wide, ensuring that our findings could reach as many decision makers and influential stakeholders as possible. We held webinars that attracted hundreds of registrations and participants. And we delivered presentations and briefings to federal and state government departments, business and investors, including the Australian Industry Group, ClimateAction 100+, Sunshot Energy, the Grattan Institute and the University of Melbourne. Our modelling set the tone in the media for a push towards a green recovery from COVID-19. We had coverage in The Guardian, The Age, the Australian Financial Review and many other media outlets, for which the compelling evidence of a ‘double-dividend’ recovery resonated.

In 2021, we’ll continue to leverage the Decarbonisation Futures research for other applications and audiences.

Our Decarbonisation Futures work was developed in partnership with ANU, the CSIRO, the Victorian Department of Environment, Land, Water and Planning, the Queensland Department of Environment and Science, The Clean Energy Finance Corporation and Climate-KIC Australia.
How can Australian industry, from hard-to-abate sectors, reach net zero emissions by 2050?

Accelerating action

The world is starting to decarbonise. And multiple countries are now setting targets for net zero emissions by 2050. In Australia, our industrial sectors’ ability to transition will make a big difference to our economy and to whether we can meet the goals of the Paris Agreement.

That’s why, together with our partners from Climate-KIC, MSDI’s ClimateWorks Australia team is co-convening the Australian Industry Energy Transitions initiative. With funding from the ARENA Renewables Program and other philanthropic and industry funders, we’re bringing together leaders from industry and business to learn and act on net zero emissions supply chains. We want to accelerate action by Australian industry in hard-to-abate sectors so that they can achieve net zero emissions supply chains by 2050.

While recruitment was more challenging due to the disruptions of COVID-19, we nonetheless brought together 14 of Australia’s largest industry companies to the project, including Orica, BP Australia, NAB and BHP. The initiative focuses on reducing emissions in five industry supply chains worth $160 million in exports. Together the industry participants represent more than 14% of Australia’s industrial emissions. Importantly, they have all agreed to work towards net zero emission supply chains by 2050.

Establishing the initiative

In 2020 we formally established the initiative, and began engaging with industry and business partners. We developed a comprehensive work program which was endorsed by an industry steering group in July. ClimateWorks and Climate-KIC co-hosted a virtual workshop series in July, with 64 industry and business participants attending from over 22 organisations. Research also began to identify and support a range of key technologies and demonstration projects. These projects have the potential to create pathways to long term decarbonisation of each sector. And we began research to understand the current state of industry systems to inform future work. So far, over 100 organisations and 300 individual stakeholders have been consulted over the life of the project.

In 2021 we’re moving into Phase 2: “Promising Pathways”. We’ll be identifying and developing credible ways for industry to transition to net zero emissions. This will include rigorous technological and economic analysis of the opportunities available and analysis of the systems that are capable of providing low-cost, reliable, net zero emissions energy.

The Australian Energy Transitions Initiative is a collaboration with Climate-KIC, the International Energy Transitions Commission, and research partners from the CSIRO and Rocky Mountain Institute.
How can we embolden Australian businesses and government agencies to adopt net zero targets?

Normalising the target

Globally, businesses and governments are joining the race to reach net zero emissions. In our region, several of our biggest trading partners — Japan, South Korea and China, as well as the United States, European Union and United Kingdom — have already committed to achieving net zero emissions. China has agreed to be net zero by 2060 and the US by 2050, with policies now in development. Major global organisations like Amazon, Shell, BP, Qantas and BHP have also adopted targets. All Australian states and territories have committed to net zero by 2050; the Australian federal government supports global net zero emissions, but has not set a national target.

Our Net Zero Momentum Tracker, developed by ClimateWorks and MSDI, is working to normalise net zero by 2050 by highlighting progress in key sectors of our economy. We’re examining the pledges and actions of major organisations across the Australian economy to determine their net zero ambition. To date, we’ve assessed over 190 government and corporate organisations who collectively are responsible for over 60% of Australia’s national emissions.

Findings that inspire action

In 2020 we published reports on the local government, retail, transport, superannuation and resources sectors. Strong interest in the findings led to these reports being featured in The Age and Sydney Morning Herald, The Australian, The Australian Financial Review, The Conversation, and the ABC’s The Money radio program. We also launched our Net Zero Momentum Tracker website and presented our findings to major Australian corporations. Our initiative has been showcased at roundtables, peak-body presentations and webinars, and has influenced emissions target proposals and board presentations for several Australian institutional investors. Our analysis shows that the initiative is encouraging greater ambition amongst Australian organisations. We’ve also been asked to review and support proposed corporate emissions commitments, to ensure they meet the gold standard.

In a year heavily impacted by the pandemic, our team worked remotely to get on with the job. Ultimately, the pandemic didn’t slow down government or corporate efforts to address greenhouse emissions. Instead, we found it emphasised the existential risks faced from climate change, and the need to demonstrate to community stakeholders and investors that corporations and governments are taking those risks seriously.

In 2021 we’ll be releasing reports on the manufacturing, energy generation and retail, and state governments.
What are the challenges and opportunities for Australia in the Food and Land Use Coalition’s “Ten Critical Transitions”?

Ten Critical Transitions
How will we feed the world’s growing population without destroying the planet’s ability to sustain life? That is a question the global Food and Land Use Coalition — which ClimateWorks Australia is a part of — has attempted to answer. The Coalition identified the ten critical transitions that are necessary to make the way we use land and produce food, more sustainable.

From promoting healthy diets, to securing a healthy and productive ocean, reducing food loss and waste, and delivering stronger rural livelihoods, these ten transitions could deliver much needed change to boost progress on the Sustainable Development Goals. They could also help mitigate the impact of climate change and drastically improve food security.

What they mean for Australia
In 2020 our ClimateWorks team looked at how those ten critical transitions could be adapted for Australia. It’s the first step in a process that is mapping a path to a more sustainable Australian food and land use system. We published ten papers in 2020 — one for each critical transition. The papers provide a comprehensive knowledge base of the current state of play in Australia across all ten areas. They also considered how these global transitions should be adjusted to work in Australia. This work has begun to build momentum towards a final roadmap publication for Land Use Futures in 2022, and so far have received great feedback from stakeholders involved. We also extended our research in 2020 to include COVID-19, taking pandemic-related issues into account in each of our papers.

In 2021 we’ll continue to work to adapt the transitions identified for Australia and build on this work.

We’re creating a roadmap for sustainable food and land use in Australia and are looking for collaborators from industry, academic and philanthropy. For more information, get in touch with our ClimateWorks Australia team.
Which Australian listed companies are best placed to survive and thrive in a low-carbon economy?

Assessing likely performance and success
Investors are constantly making choices about where to place their money and which companies will perform best. But almost three years ago, our ClimateWorks team realised that Australia lacked a forward-looking assessment of how companies would perform in a climate change affected world. So we partnered with BNP Paribas, the Monash Centre for Quantitative Finance and Investment Strategies, and Institutional Shareholder Services (ISS) to create the Australian Climate Transition Index: a financial index to help give potential investors better insight into which companies were most likely to survive and thrive in a world transitioning to a low-carbon economy.

The index is the first of its kind for the Australian market. It takes climate scenario data from ClimateWorks and combines it with company data from ISS to calculate a score for each publicly listed company. The scores are updated every six months. The index is intended to guide investment decisions in line with the Paris Agreement and to keep the bar high in terms of green or transition investments.

Launching the index
After more than two years in development and review, the index was launched in August 2020. And it is already having an impact. The first green bonds linked to the index have been issued, worth almost AU$140 million. Investors using the index include First State Super, QBE Insurance and the Clean Energy Finance Corporation. And demand is already high for a second issuing of the index. In 2021, our team will continue to update company scores. We’ll also be updating our Decarbonisation Futures work, which will be used for the December 2021 update of the index. Discussions are now underway for the development of a similar index in other countries.

Help us keep up the pressure on investors. Visit the BNP Paribas Australian Transition Index to learn more about sustainable options you can invest in, including for your superannuation.
Environment and Health

Biodiversity, climate stability and healthy ecosystems are the foundations for all life on earth, including human wellbeing. That’s why MSDI is exploring the connection between people and the environment and working to improve the wellbeing of both.
How do we ensure the one billion people living in informal settlements have access to clean water and sanitation?

Facing a pandemic head-on
Over one billion people living in slums around the world have been some of the hardest-hit by COVID-19 — unable to socially distance, stay home from work, or wash hands with clean water. For millions in these crowded communities, the devastating choice has often been between taking paid work, at the risk of catching and bringing the disease home to family, or facing the certainty of lost income, deeper poverty, and hunger.

In this new COVID-19 world, we refused to accept these human rights violations. In 2020 our RISE team adapted its operations to meet the new challenges we faced. Our team worked to keep our RISE research advancing and to deliver on our mission to improve equitable access to water and sanitation for people living in informal settlements.

Adapting our approach
With country border shutdowns grounding our global researchers, in 2020 we bolstered our already strong local teams and accelerated their capacity to lead and drive research on the ground. We shifted our environmental sample work to our laboratories in Fiji and Indonesia, instead of shipping samples internationally for analysis. We advanced new scientific approaches for identifying pathogens in human and environmental samples. And we began translating our findings into impactful publications that can shape debate and investment in informal settlement policy.

We also leveraged our local networks and community trust to share hygiene and safety messages with our communities. And we distributed masks and rice packs as a symbol of continued support during difficult times.

We are now on the cusp of commencing construction of our water and sanitation infrastructure in our phase 1 sites. In 2021, we will also forge on with our research activities — safely collecting and analysing environmental, ecological and human health samples from our informal settlements. Because amid the pandemic, our goal to improve water and sanitation services for the poorest and most vulnerable is more important than ever.

Explore more
Watch the video

We’re keen to partner with organisations and individuals who are passionate about improving the environmental and human health of some of the world’s most vulnerable communities. Find out more about how you can get involved.
How do we empower our future healthcare workers to help create a more sustainable future?

Healthcare on the Frontlines

A recent Lancet Report warned that ‘the nature and scale of the response to climate change will be the determining factor in shaping the health of nations for centuries to come’.

Healthcare professionals are on the frontlines of responding to the effects of climate change — including the physical and mental health of Australians. That’s why we believe that equipping our current and future healthcare workforce to address these challenges is essential. Together with our colleagues from Monash Medicine, Nursing and Health Sciences, MSDI is helping to integrate sustainability into tertiary education for health professionals.

An Australian-first

In 2020, we began putting in place the foundations for what will become an interdisciplinary sustainable healthcare education (SHE) framework across 13 health profession courses at Monash University. We adopted an innovative, grass-roots approach to help shape the framework by first conducting a faculty-wide survey and solutions-focused hackathon. Developed by academics and clinicians across medicine, nursing, pharmacy, allied health and more, this evidence-based framework is being tailored to address the needs identified by those at the frontlines of clinical practice and education.

The initiative will reach 14,000 health professions students yearly. It is the first of its kind in Australia, and is viewed as highly innovative by international experts in the field.

Implementing the Recommendations

Five actionable recommendations came out of our research and work. These include: inspire multi-level leadership and collaboration; privilege student voices; develop a SHE curriculum and resources repository; and integrate SHE into course accreditation standards. A new Education for Sustainable Health & Care working group has already been established to implement the recommendations. And in 2021 we’ve begun work to implement them. We’ll also be co-designing and facilitating professional development opportunities for academics in education for sustainable healthcare.

The framework will be rolled out over three years at Monash to help equip the next generation of health professionals to practice sustainably.

Explore more

Read The Lens article
How can farming and wetland protection co-exist on private land?

Improving engagement with farmers

Wetlands play an essential role in our environment. They purify water and provide protection from soil erosion, floods and drought. They help reduce greenhouse gases and provide habitat for a range of plant and animal life. The Victorian Government has committed $222 million over four years to protecting the state’s waterways. But many wetlands are located on private farm land in Victoria’s south-west. With farmers under pressure economically and from the threat of climate change, cropping practices have grown and pose a risk to wetlands.

In 2020 our BehaviourWorks team embarked on a study to help authorities better engage with farmers on wetland protection in south-west Victoria. Our aim was to capture the opinions and experiences of a broad cross-section of farmers in the region, to explore how wetland protection can co-exist with cropping practices on private land.

Supporting wetland protection

In partnership with the Glenelg Hopkins Catchment Management Authority and Beyond Bolac Catchment Action Group, our BehaviourWorks team interviewed 15 farmers from south-west Victoria to identify farm practices that impact on wetland protection. Following a workshop and follow up visits with farmers and key stakeholders in late 2019 and a literature review, the team held a series of interviews with farmers to explore the different influences on decision-making and practice. A further workshop was held in mid-2020 to present the results, along with recommendations for further engagement and support strategies. A report was released in mid-2020.

The study yielded key insights, including potential behaviour change interventions and pilot programs that could improve farmer engagement and support wetland protection. Findings revealed a number of tensions between farming and wetland protection, and a desire to support farmers to protect, manage and create value from wetlands so as not to be financially penalised for having them on their land. The study also revealed additional ways to engage with farmers on these issues. Pilot programs are now being considered for implementation, pending funding.
How can regulators maximise the compliance of small and medium sized businesses with general statutory duties of care to the environment?

I’m a qualified urban planner and a third year PhD student with MSDI’s Behaviour Change GRIP. My research is exploring what motivates businesses to do the right thing and to adjust the design and application of regulatory tools so we can leverage those motivations. 2020 was a challenging time. Living and working full time in a two-bedroom apartment with my wife was a lesson in both organisation and space management. Add to that the arrival of our daughter Lucy and it was a year we will never forget. Despite that I made good progress on my thesis, passing my mid-candidature review, and analysing the data I’d collected for my Practice Review, which delves into the lived experiences of regulatory staff. During the latter half of the year, I also began drafting the second paper of my PhD. I also published my first paper in the Australian Journal of Public Administration. This initial work lays out the foundations for the rest of the PhD, which I hope to complete by the end of the year, or early 2022.
Circular Economy

Unchecked consumption depletes our finite resources and produces large volumes of waste, which is hazardous to both our natural world and human wellbeing. That’s why MSDI is building pathways to more sustainable production and consumption, and helping to move Australia to a circular economy.
How do we help Australia’s fashion industry become more sustainable?

Mapping the opportunities for change

Whether you consider yourself fashionable or not, fashion (clothing, textiles and footwear) touches everyone’s lives. Not only does the global fashion industry provide us with useful products, it is also an important contributor to the world’s economy, providing an enormous number of jobs. But the current system of fast fashion is negatively impacting our environment. We’re buying more but ‘using’ our clothing less: over 6000 kg of clothing and textiles is dumped into landfill every ten minutes in Australia. There has to be a better way.

MSDI’s Aleasha McCallion, Julie Boulton and Jim Curtis are looking at what can be done to transition the Australian fashion industry to a circular economy — an alternative approach to production and consumption where products are kept at their highest value for the longest possible time.

To date, the team has mapped the views of industry on circular economy in Australia, and analysed the gaps between what industry is saying it needs and current government policy. We’re working closely with the Victorian Department of Environment, Land, Water and Planning and the Australian Fashion Council to ensure our research in this area can be translated into change on the ground. But there is more to do. The team is now working with industry to identify opportunities to build capability in circular economy practice across the industry and to drive change across the entire system.

Progress in a pandemic year

While COVID-19 was undoubtedly challenging, the team was able to advance our work in a year that the fashion industry became very focused on survival. We worked with our industry partners to continue to place sustainability issues at the heart of a collaborative recovery and make progress. In 2020 we launched the Circular Stories Working Group, bringing together stakeholders from across the industry to produce a first-of-its kind guide on the latest circular fashion practices. We worked with the Australian Fashion Council to publish a series of articles on the fashion industry and the Sustainable Development Goals. Our team also participated in a series of workshops, webinars and workshops, including Legacy in March, where we presented on a sustainable fashion industry, the SDGs and the circular textile economy. Our work contributed crucial background research to the Recycling Victoria policy, launched by the Victorian Government in March 2020.

In 2021 we’re building on our work so far by:

- Launching the first Circular Story Guide by the Circular Stories Working Group;
- Running a pilot project looking at reusable textile PPE in hospital settings; and
- Continuing to engage with policy makers to address gaps across the CE eco-system.
How can behaviour change science help us tackle Australia’s waste crisis?

Trialling different approaches

While the pandemic forced us to shift and adapt much of our work in 2020 to the online space, we made good progress. We ran behaviour change trials on three different aspects of the waste crisis: kerbside recycling contamination, business adoption of circular economy practices, and consumer labelling.

In our kerbside recycling work, we looked at how recycling contamination occurs and how we could help Australians improve their recycling practices. Stakeholder interviews, a rapid evidence review and two co-design workshops helped us to shape the behaviour change interventions to test. We then ran three field trials and three series of online experiments with 15 local and state government partners to explore which approaches worked best. These trials and experiments are continuing into 2021.

We also interviewed stakeholders and conducted a rapid review of the evidence to help us understand how we could best encourage businesses to adopt more circular economy practices. We ran a circular workshop series to test the effectiveness of different strategies with the Australian Fashion Council and its members, and researchers from Circular Strategies and TU Delft in the Netherlands. Our work has helped encourage further collaboration amongst key stakeholders in this space.

Finally, to understand whether Australian consumer ‘eco’ product labelling schemes could be effective in changing behaviour, we conducted a rapid evidence review and translated our insights into an experimental online survey. Our survey tested consumer interest in circular products, and whether circular economy labelling schemes could work in Australia. Our research has led to one existing ecolabel incorporating our behavioural insights into its redesign.

In 2021, we’ll be expanding our work to look at climate adaptation behaviour change, and responsible consumption in a new round of cross-agency collaboration.

Explore our microsite and circular economy resources.
How can we reduce food waste in Australian schools?

CIRCULAR ECONOMY

Behaviour change is key
A third of the world’s food is wasted every year. That’s over a billion tonnes. Spoiled, lost or thrown away uneaten, this food waste contributes to climate change and land degradation. It impacts planetary and human health. And it’s a real threat to sustainable food systems globally.

With funding support from EPA NSW, MSDI’s BehaviourWorks Australia team have collaborated with the MidWaste Regional Waste Forum to deliver Lunchbox Leftovers: a pilot project to trial three food waste reduction interventions in schools.

Three interventions trialled
We first ran a survey with 600 parents and 600 students about what helped and what stood in the way of reducing food waste. Then three behaviour change trials were conducted at nine schools in the NSW Mid-Coast region. This enabled us to test which behaviour change approach was most effective in reducing food waste.

The three interventions we trialled included a new school policy requiring students to take home leftover food; a school program to promote greater student involvement in making their own lunch; and a timetable change to allow students to play before eating their lunch. We interviewed parents and teachers after running the trials and used photo-audits to capture the results. Our results were positive and uncovered exciting opportunities to change behaviour and reduce food waste. The programs to encourage students to take home leftover food and promote their involvement in making food for school both led to substantial uptake of these behaviours. And students who ate their lunch before playing reported eating more food by the end of term. Overall there was also a noticeable reduction in food packaging waste and teachers from three of the nine participating schools also reported improvements in student classroom behaviour.

MidWaste Regional Waste Forum is continuing to roll out the program in the region in 2021 with up to 15 schools.

Explore more
Watch MSDI’s Mark Boulet talk about food waste
How can we revitalise polluted river environments and their communities?

A community’s lifeblood

Over 25 million people rely on the Citarum River in West Java, Indonesia, for water, electricity and livelihoods. It is also one of the world’s most polluted rivers. Every day, thousands of tons of sewage, solid waste, and industrial waste water flow into the river, bringing disease, degrading biodiversity, choking waterways and causing flooding. We need to create sustainable and affordable waste and sanitation systems for local communities to rise above these problems and achieve their potential.

Convening a global team

Our Citarum team spent 2020 scoping challenges in the Citarum basin, and building partnerships with government, academia and communities to begin collaborating on solutions.

Before the pandemic spread across the world, our visits to the Monash-led RISE program in Indonesia showed how sustainable water and sanitation infrastructure is functioning in informal settlement communities. In Melbourne, we convened Australian and Indonesian government partners to share lessons and ideas on river revitalisation for the Yarra and Citarum rivers.

When the pandemic hit, we transitioned to virtual collaboration. Our chief academic partner, the University of Indonesia, developed a short-list of villages in the Citarum basin based on their rigorous social and environmental research. Together with the Provincial government, we co-developed a place-based concept for river revitalisation. This aims to create social and circular economy innovations for nature-based waste and sanitation services, to propel riverine communities towards sustainable growth and healthy environments.

In 2021 we are looking to secure funding to test this concept in our first demonstration project in a tributary of the Citarum River. We aim to create new knowledge on system transformation and to evaluate the impact of new social, economic and technology based solutions. This will allow us to scale up solutions and grow investments in sustainable Citarum River restoration.

This project is part of a wider network of Citarum action research projects rolling out across Monash University, investigating flood modelling, river governance, indigenous water rights, sustainable agriculture and behaviour and waste mapping.

We're seeking partners to collaborate with us on our demonstration project. Contact us to find out how you can be involved.
What is the relationship between media, social norms and single-use plastic avoidance?

I’m a Research Officer with BehaviourWorks Australia and have recently completed my PhD with MSDI’s Behaviour Change GRIP. My research is exploring the role of the media in turning the social tide on plastic avoidance. The pandemic actually had a minimal impact on my work. In fact, not travelling to the office and being unable to socialise during lockdowns meant I was somewhat ‘over productive’. While I wasn’t able to present at the EcoSummit Conference in June and had limited networking opportunities, I did have plenty of time to write my papers and thesis. I published a journal article on social norms and plastic avoidance and another on how Facebook users reacted to news stories about a supermarket plastic bag ban. I also had the opportunity to talk about my work in The Conversation, on Monash Lens, and was interviewed for radio and podcasts about how to avoid plastic during a pandemic. Before COVID-19, I also presented at the Victorian Biodiversity Conference and the Australian Science Communicators Conference. In 2021 I’m heading back to full-time work with MSDI.
Sustainable Cities and Regions

By 2050, almost 70% of the world’s population will be living in cities. As the world becomes more urbanised, the impact on our environment, economy and society will increase. That’s why MSDi is driving research and education to help create the sustainable cities and regions of the future.
Learning through experimentation
By 2050, nearly three quarters of the world’s population is predicted to be living in cities. That’s why transforming our cities is so crucial to solving our interconnected global crises. But we need to act quickly. So, what can experimentation at the precinct level teach us about transitioning our cities to net zero emissions?

Researchers working on our Net Zero Precincts project are attempting to answer those questions. Our researchers are exploring how transitions to net zero might be better governed and achieved, by undertaking the journey at a precinct scale and then applying what we learn more broadly. We’re using Monash University’s own Clayton Campus as a ‘living laboratory’ to run experiments that can help us accelerate the transition to net zero emissions cities.

Setting the groundwork
In 2020, despite COVID-19 and its impact, we were able to make good progress. Working with our colleagues at the Monash Energy Institute, the Monash Net Zero team, Monash IT, the School of Social Sciences and Monash Art, Design and Architecture, MSDI ran several workshops to bring together research expertise from across the University and set Monash’s best minds to work. Together, we won an ARC Linkage Grant worth $1 million to support the project and began the process of structuring and mapping out our work. We also published a paper on the state of urban experimentation at the precinct scale, helping to identify gaps for future research and using our local project as an empirical example.

In 2021 we’ll be engaging with industry and government partners, Monash University staff and residents to begin the work of visioning and co-creating what a Net Zero Community Precinct could look like. We’ll then start designing living lab experiments across energy, mobility and buildings to work out how to realise these visions.
How can we foster collaboration between citizens and public servants to make cities more liveable?

A Multi City Challenge

Local Governments around the world are facing multiple public problems, from pollution to urban mobility and inequality. Solving these urban issues is critical, especially after the impact of COVID-19.

In 2020, our Policy and Impact team partnered with New York University’s The GovLab to help five cities in Northern Mexico tackle these challenges in active collaboration with their citizens. We helped design, coordinate and run a nine-month Multi City Challenge for the cities of Hermosillo, Reynosa, San Nicolás, San Pedro and Torreón. The Mexico Multi City Challenge, launched in August 2020, is now helping to harness the collective intelligence and wisdom of Northern Mexico communities to develop innovative solutions to urban problems.

Delivering innovative solutions

The program involved three stages. Stage one included a four-week training program which we co-designed to help public servants define the problems they wanted to solve, resulting in each city presenting two urban challenges back to their communities. The problems presented were diverse — from waste management to economic recovery after COVID, to pollution and inclusion.

Citizens were then invited in stage two to submit their project ideas and proposed solutions via an online platform. We supported a communications campaign to encourage residents to get involved and received over 230 submissions across the five participating cities over 20 days. Communities were invited to vote on the submissions. Over 8500 votes were cast and ten proposals (two per city) were chosen to proceed to stage three.

In stage three citizens and public servants worked together in a four-week training program, which we co-designed, to transform their ideas into conceptual prototypes and action plans. These were presented to an expert panel in December 2020. Seven teams were selected to continue to pilot phase. While the COVID-19 pandemic impacted on timing of the program, it also increased the interest of cities in the region to participate. And it shed a light on the need to solve problems together.

In 2021, MSDI will be designing and delivering training and coaching for the seven participating teams, supporting them in delivering on their pilots, and monitoring the ongoing progress of the Multi City Challenge.

Are you interested in running a similar Multi City Challenge in your area? Contact Alejandra Mendoza for a no-obligation chat on how we can help you.

230 submissions
8500 votes
How can we better plan our cities so that they are truly water sensitive?

A more holistic approach

By 2050, the majority of the world’s population will live in cities. Yet in Australia we’re not adequately planning our cities to allow for this growing population and the water it will need. Conventional approaches are placing pressure on both our infrastructure and our environment. That’s why the CRC for Water Sensitive Cities, with MSDI’s support, has been working to create a more holistic approach to urban development that integrates water with urban planning.

As part of the project, MSDI’s Research Team examined collaborative governance. We explored how the urban planning and water sectors could govern together to implement water sensitive solutions.

Designing cross-sectoral collaboration

In 2020, MSDI’s team undertook case studies of cross-sector collaboration between urban and water sectors in Perth, Townsville, and Melbourne. These case studies examined instances where water sensitive solutions were incorporated as part of urban development projects. Due to COVID-19, some of that work moved online, with online interviews and surveys replacing face-to-face work. A report was then delivered in late 2020, offering guidance on designing cross-sectoral collaborations to deliver water sensitive solutions. The report highlights key elements to be considered as well as providing tools and tips to assist. It has already found an audience with practitioners in the water and urban planning sectors, and is being used by industry to inform future collaboration efforts.

Our work helped shape the CRC’s integrated planning framework that is assisting practitioners to design collaborative, context-sensitive and integrated approaches to urban and water planning. The framework highlights key activities for integrating urban and water planning, illustrated with case examples from across Australia.

In 2021, we will be building on and benefiting from this work as we work towards enabling more sustainable, nature based solutions in urban environments.

Find out more

Download our report for guidance on best practice approaches to collaborative governance: Designing cross-sectoral collaborations for integrated urban and water planning.

Download the CRC’s Integrated Urban and Water Planning Framework and Principles here.
How can we make household water use more energy efficient?

Reducing emissions and improving liveability

When it comes to reducing emissions, we all know about coal-fired power plants and fossil fuels. But did you know that industry and household water use accounts for a huge 12% of the greenhouse gas emissions we produce?

Researchers from our MSDI Water and BehaviourWorks teams are working with partners from government, industry and academia to understand how we can reduce those emissions and create a carbon neutral water sector for Australia. We're exploring how household technologies and behaviours influence greenhouse gas emissions. We're looking at how water is used in households, and how policies, processes and practices across the water sector can better support more energy efficient water use and greenhouse gas reduction in water services. What’s more, by reducing energy use in the water sector, we’ll be saving people money on their bills, and helping to improve liveability and wellbeing.

Exploring the options

Our partners on this project include the Victorian Department of Land, Water and Planning (DELWP), Yarra Valley Water, South East Water, City West Water, the Brotherhood of St Laurence, St Vincent de Paul, the Energy Council, and the University of Queensland. Together in 2020 we began an exploration phase for the project.

Our behavioural researchers did a critical practice and literature review on household water use behaviours. And our MSDI Water team collaborated with partners on an investigation into how the legislative, policy, regulatory, and institutional environment shapes outcomes for water and energy efficiency in different Victorian households. Meanwhile, University of Queensland researchers looked at the technical dimensions of case studies in the Melbourne suburbs of Reservoir and Frankston to begin to quantify the amount of greenhouse gas produced through household water consumption. They also looked at the energy and water produced. We set up a stakeholder working group, including researchers from Monash and University of Queensland, together with government and water utility experts and leaders. The group is co-chaired by MSDI’s Professor Rob Skinner and will report directly to the Victorian Water Minister.

In 2021, we’ll be exploring which options for change are most effective. Ultimately we plan to pilot our solutions and scale those that work up to rural and regional areas and beyond.

Are you interested in learning more about our research in this area and how we can help you? Contact Paul Satur for more information.
How can the water sector lead the way in closing the loops across different resources?

Opportunities to innovate

The water sector in Australia is a major consumer of energy. Through water use for irrigation, it plays a major role in the food sector too. So there are benefits to be gained from integrating water, food and energy when planning for the future.

In 2020 MSDI’s Research team worked with Melbourne Water to explore the synergies between water, energy and food production, minimise trade-offs and negative impacts, and enable the water sector to become more innovative and sustainable.

Understanding the global state of play

We conducted a systematic review of global literature on the nexus between food, water and energy to understand the current state of play. Our researchers looked at both conceptual studies and empirical cases. We then ran a workshop to discuss the implications of these findings for Melbourne Water and to look at the opportunities available. A report summarising our findings was delivered to Melbourne Water in 2020.

In 2021, we will continue to work with Melbourne Water to explore and assess opportunities for establishing a pilot project based on our nexus work.
How can we prevent illegal smartphone usage during driving?

I'm a PhD student with MSDI’s Behaviour Change GRIP. My research is examining our relationship to smartphones by examining Nomophobia — the fear of being without a mobile phone. I want to establish if the fear of being without a smartphone contributes to problematic behaviour like dangerous, prohibited or dependent use of mobile phones. In particular, I’m focusing on whether Nomophobia predisposes people to use their phones illegally while driving. The pandemic meant that I moved all of my focus group work online in 2020 instead of conducting them in person, but I was otherwise able to continue my research relatively unscathed. My research received national and international media attention with over 300 media mentions and appearances. That included the Herald Sun, the Sydney Morning Herald, on Channel 7, Channel 9, The Project and WIN News. I was also interviewed on radio stations around the country. I was invited to publish a piece on my work in Monash Lens. And I won the People’s Choice Award for the Monash Migration and Inclusion Centre (MMIC) and BehaviourWorks Australia Hackathon on inclusive employment innovations with Wyndham City Council.
Leadership for the SDGs

The Sustainable Development Goals are humanity’s roadmap to a life of health, prosperity and inclusion for all. With less than ten years left, MSDI is advancing SDG literacy and action to harness the transformative potential of the SDGs.
LEADERSHIP FOR THE SDGS

How can we expand society’s capacity to implement the SDGs and solve the world’s most complex challenges?

The last decade to achieve the SDGs

Less than 10 years remain to achieve the SDGs. With a growing urgency to act — and the added challenges of managing the fallout of the COVID-19 pandemic — we need everyone to buy into the SDG blueprint for a more sustainable future.

As the providers of lifelong education to hundreds of millions of learners around the world, universities have a unique and critical role to play to help meet this need.

Education and inspiration: tools for action

In 2020, we helped the Sustainable Development Solutions Network (SDSN) launch ‘Accelerating Education for the SDGs in Universities’ — a new guide that helps universities, colleges, tertiary and higher education providers implement and mainstream education for the SDGs in their institutions.

Jointly produced with SDSN Australia, NZ & Pacific, MSDI and the Technical University of Madrid, the Guide aims to inspire and mobilise universities to equip all their learners with the knowledge, skills and mindsets to help solve the world’s complex sustainable development challenges.

The Guide was built on SDSN Australia, NZ & Pacific’s widely referenced 2017 publication “Getting Started with the SDGs in Universities”, and accompanied by a case study website featuring 50 innovative examples of how universities and students around the world are accelerating their SDG education and impact. Since its launch, the guide has been accessed over 50,000 times.

In 2021 we will help accelerate global uptake of the Guide, including translating it into high-demand languages like Spanish and Chinese, convening online dialogues, and showcasing fresh case studies from around the world to inspire more educators and learners. Educators and learners are some of the best-placed people to drive achievement of the SDGs — the right tools can help them achieve this potential.

Explore more

Download the guide

Watch the launch of the guide
LEADERSHIP FOR THE SDGS

How do we ensure Australia is on target to achieve the SDGs?

Measuring Australia’s performance

With less than 10 years left to achieve the Sustainable Development Goals, Australia is off track. Our Transforming Australia SDG Progress Report focuses attention on how Australia is progressing towards the Sustainable Development Goals (SDGs). From good health and wellbeing, to climate action, education and more, how is Australia tracking? And how can we use our data to plan better for the future?

In 2020 we released the second edition of the Transforming Australia SDG Progress Report. The report was launched at an event hosted by CEDA in November 2020. In this update to our 2018 baseline assessment, we measured Australia’s current performance against 56 indicators covering all 17 of the SDGs. We found that, much like in 2018, Australia is performing well in health and education, but failing in climate, environment and social inequality. Of the 56 indicators we examined, only 12 were assessed to be on track to meet our 2030 targets.

Stimulating a national dialogue

A key objective of this updated report was to stimulate a national conversation on what Australia can and should be doing to achieve the SDGs, particularly as we look to recover from COVID-19. We found that the pandemic itself has exacerbated trends — worsening unemployment, poverty and psychological distress that were emerging before COVID-19 hit.

We also set quantitative targets that outline what Australia should be striving to achieve in the future. Australia still lacks any national targets for many of the specific goals. We believe that this is undermining our ability to plan effectively for the future. Our report received coverage in the media and online, including in The Conversation and on ABC Radio.

In 2021 we’re taking this work further, and are increasing our engagement with Australian businesses and governments interested in understanding Australia’s performance on the SDGs. We’re delivering tailored workshops and presentations to stakeholders on the findings of our report. And we’re using the report to engage in a national dialogue around how we implement the SDGs in Australia. We’re also intending on producing issue-specific indicators in partnership with other organisations.

Explore more

Watch the Transforming Australia 2020 progress report presentation

Our 2020 Transforming Australia Update was funded by the Lord Mayor’s Charitable Foundation.
Solving Complex Public Problems

Water quality and pollution. Climate change. Waste. Bushfire risk: these public problems originate in endless ways. And the effects spill over all aspects of society. Untangling them requires policymakers to make sense of evidence from a myriad of sources that are often siloed and quickly outdated.

This is where artificial intelligence (AI) can help. MSDI, together with Monash IT, Better Governance and Policy, and the Monash Data Futures Institute are harnessing AI and data science to support governments in building better policy and governance practices. Using AI tools such as algorithms to deal with large amounts of data, we want to generate insights for policymakers that will make it easier to take action on sustainable development; whether it’s at a local, state-wide or national level.

Creating AI Tools that Work

In 2020 we ran surveys and held interviews with policymakers to explore what information they would find most useful. Our Monash data scientists are now taking these insights and beginning to generate AI models that will support policymakers in effective decision-making. In 2021 we’ll be working to apply these insights and disseminate information to stakeholders and decision-makers who can benefit from the work we’re doing; and seeking funding to help us expand our work in this space.

In this new industrial revolution, Monash is developing AI for good. We are not only collecting data and investing in research, and actively learning what policy makers need but also ensuring that policy makers have the right skills to discriminate between evidence which is reliable and useful, and that which is not.

Explore more

Watch our event: AI and Data Science for Sustainable Development
LEADERSHIP FOR THE SDGS

How can local communities implement the SDGs?

Enabling local action

In these uncertain times, local communities are more concerned than ever about how to adapt to rapid change. They’re asking how they can be more resilient, adaptive, cleaner and greener. They’re also looking for ways to manage risks and cope with future surprises.

MSDI is working with Deakin University on their Local SDGs Program to enable local action for resilience and sustainability. Starting with the Forrest-Otways and Goulburn-Murray regions, we’re supporting local communities with knowledge and tools for taking a bottom-up approach to implementing the SDGs, to support people and nature to thrive.

Shaping their visions for 2030

In 2020, we’ve been working with the Forrest-Otways community to develop a community strategic plan. This plan maps out the community’s vision for their local area by 2030. Despite workshops and kitchen-table discussions having to move online due to the pandemic, the community was able to share their visions and ambitions for the next ten years. The MSDI team brought an SDG lens to those discussions, to help clarify what is driving change in the regions and the issues being faced by the community.

MSDI PhD student, Dianty Widyowati Ningrum, also reviewed what we’ve learned from a previous framework of this kind — Local Agenda 21. She explored case studies of communities that had tried to work with the Agenda 21 framework, and looked at the challenges and opportunities that arose from that. She also looked at the implications for our own efforts so that we can bring those lessons to our current work.

The program will continue into 2022 and aims to produce a framework for how local communities across Australia can engage with and work towards the SDGs.
LEADERSHIP FOR THE SDGS

How can we enable and empower local communities to become more sustainable and implement the SDGs?

Before beginning my PhD with MSDI, I worked as a senior analyst with a development and management consulting team in Indonesia. My research is looking at how we can enable bottom-up local sustainability within the framework of Agenda 2030. Change is occurring more rapidly than at any other time in human history but the breadth of the issues covered by the SDGs pose a challenge for local communities. COVID-19 impacted my work in 2020, not least of which was adjusting to new ways of interacting with colleagues and supervisors and the physical and mental strain of lockdowns. As an international student, I was also concerned with the pandemic situation back home and for my friends and family. Nonetheless, I finished the first phase of my thesis — a systematic review of past local sustainability experience around the world — and co-authored a journal paper. I also won a full scholarship to attend STEPS Summer School with the University of Sussex. In 2021, I plan to complete the next phase of my research, which will examine the current progress of local sustainability efforts within the context of the SDGs.

Learn more about Dianty Ningrum’s work here.
Inclusive Prosperity

Sustainable development is not possible without equity and inclusion. That’s why MDSI is working to promote development that celebrates human capabilities, embraces diversity and justice and empowers communities.
How do we fix a broken mental health system?

Redesigning the system
Most people in Victoria will be affected by mental illness at some point in their lives. In fact, poor mental health has become a pressing health crisis. With the impact of COVID-19 putting it firmly in the spotlight, 2020 saw a surge in demand for services that were struggling long before the pandemic. Mental health services in Victoria, however, have so far failed to provide treatment, care and support to people living with mental illness, or their families and carers, when and where it matters.

Recognising the pressing need for urgent reform, the Victorian Government established a Royal Commission into Victoria’s Mental Health System in early 2019. In 2020, MSDI was brought on board to help find ways for Victoria’s mental health system to better respond to current and emerging pressures. We supported the Commission to explore how a system transformation could be operationalised to meet the needs of people living with mental illness, and their families and carers.

Once-in-a-generation chance for transformational change
Recognising the need for “transformational change”, MSDI’s Policy and Impact team supported the Royal Commission to identify system-wide issues, and to outline new approaches to mental health services. We prepared a Primer Paper for the Commission that explored the key forces shaping Victoria’s mental health landscape — a growing ageing population, technological change, and increasing demand for personalised services. Our paper outlined key principles for systems transformation and co-design.

Our engagement across sectors was also deep and diverse: through a series of workshops, we deliberated systems redesign with leaders from public health, mental health, youth engagement, politics and other sectors. Together we explored possible future directions and priorities with a broad cross-section of ‘unusual suspects’. We also conducted a rapid evidence and practice review, and ran two online dialogues to explore how community-led social connection can be strengthened in the redesign of Victoria’s mental health system.

Influenced by our work, the Commission’s final recommendations centred on transformational reform. Our work increased understanding of how to harness system transformation approaches to solve complex problems. We were also cited in the Final Report of the Commission, which was released in February 2021.
INCLUSIVE PROSPERITY

How can we improve Victoria’s vocational education and training system?

Skills needed for a growing, sustainable economy

For one in three Victorians, vocational education and training (VET) is their highest qualification. In its current form, however, Victoria’s VET system will struggle to meet new demands it will face. A hyper-competitive market model and inconsistent fees risks learners who are not always guaranteed a good job today, or a ticket into the transformed labour market of tomorrow.

Our Policy and Impact team are working to help reform Victoria’s VET system, bringing a systems perspective to a set of complex policy problems. In 2020, MSDI supported an independent review of vocational education, promoting evidence-informed planning for the sector to better meet the needs of learners and the community.

Education and training reimagined

Our experts in policy and systems reform provided strategic advice to a Victorian Government Review into how the state’s training system could better equip Victorians with the skills needed for a growing, sustainable economy. The Review was chaired by The Hon Jenny Macklin, an Australian policy expert and former senior Federal Minister.

Working closely with the Department of Education, our team facilitated workshops with the Review’s advisory groups, engaged with stakeholders on submissions, and contributed to the report writing, which sets out recommendations to re-imagine a more effective system.

The final report proposes a set of reforms that view vocational education and training as a system, rather than a market. The reforms would build shared direction, insights and investment across the VET system, strengthening the role of the Tertiary and Further Education (TAFE) network within VET, and making the system more responsive to the needs of learners, as well as communities and businesses.

The report was publicly released in early 2021, and will be considered by the Victorian Cabinet in informing the national skills debate, as Commonwealth and State Governments pursue a new Agreement on Skills and Workforce Development.

Read the final report Future Skills for Victoria: Driving collaboration and innovation in post-secondary education and training, and Contact us to find out about opportunities to collaborate.
How do we make Australia a more inclusive society?

A social movement rooted in behaviour change science

One in four Australians — almost 6.7 million people — experience major discrimination based on their age, gender identity, sexual orientation, religion, ability or origin. Social exclusion, often caused by discrimination, threatens our prosperity as a country, undermines our shared values, and costs the Australian economy $45 billion a year.

MSDI’s BehaviourWorks team is working with Inclusive Australia, a growing alliance of organisations and high profile ambassadors, to make exclusion and discrimination a thing of the past. We’re providing research, expertise and tools that can help build a society where differences are not just tolerated, but celebrated.

Tracking and enabling progress

In 2020 our BehaviourWorks team released the fourth edition of the Social Inclusion Index and developed a unique Workplace Diversity and Inclusion Diagnostic. The Inclusive Australia Social Inclusion Index provides a unique overview the situation in Australia, and covers a wide range of issues. The 2019–2020 report found that people who identify with more than one minority group experience significantly higher levels of discrimination.

It also found that many Australians still have little to no contact with certain minority groups, increasing the likelihood of prejudice. A fifth edition of the Index will be released in 2021.

In 2020, we also partnered with Inclusive Australia to develop a new Workplace Diversity and Inclusion Diagnostic. The tools will help organisations assess how well their diversity and inclusion practices and initiatives are working (if they have them in place). The diagnostic includes both a manager’s tool and an employee survey. In 2020 we piloted the manager’s tool with a range of organisations. BehaviourWorks researchers also identified key social inclusion behaviours and everyday actions that Australians can take to help foster greater inclusion.

In 2021 we’ll be looking to extend our pilot to more organisations, with the aim of eventually providing open access opportunities to organisations for self-assessment.

Find out more

- Download the Social Inclusion Index Report
- Watch the Social Inclusion Index Video
How can we ensure equitable access to good water and sanitation?

**Improving access for all**

There is increasing awareness that even in community-based water and sanitation programs, some people remain excluded from the design process, and hence the benefits the interventions bring. Marginalised community members are left out of decision-making based on their gender, ethnicity, social status or disability status — and their vulnerabilities have been further exacerbated by the pandemic.

Our Water for Women research — an add-on project within RISE — is producing evidence around the roles, needs, and priorities of women, girls and disabled community members when designing water-sensitive infrastructure. We hope to ultimately help improve fair access to the social and health benefits that these solutions can offer.

**Tracking people’s lived experience**

In 2020, although we could not travel, researchers from Monash, Emory and Hasanuddin Universities forged on with their goal to create a toolkit for socially inclusive water and sanitation interventions. Using remote and virtual methods, our team conducted 772 surveys with women and men in informal settlements in Makassar, Indonesia to capture data about their social capital and participation in the RISE Program co-design process.

We also conducted 1208 surveys in Suva, Fiji. With a global pandemic underway, measuring the impacts of COVID-19 on vulnerable households became vitally important. Our survey questions were expanded to capture data about functionality, food and water security and access to assistance during the pandemic. In Makassar, we also interviewed sixteen residents, both men and women, and those with and without a disability. We wanted to deep dive into their experiences of co-designing water and sanitation infrastructure as part of the RISE Program. To facilitate this process, we forged a new partnership with researchers at the University of the South Pacific in Fiji. We also ran country-appropriate workshops in both Indonesia and Fiji to train our research team in gender and disability inclusive research methods and community engagement.

In 2021 and beyond we’ll be working to make sure that the evidence we’ve generated is widely available. Our work outlining the impacts of the RISE program and the pandemic on diverse women and men could be used to guide future water-sensitive infrastructure programs for lasting and inclusive improvements in health and wellbeing.

Our Water 4 Women research is supported by the Australian Government.
How can we best prepare Australians for retirement?

Understanding what shapes retirement confidence

With many of us now expected to live well into our 80s, retirement is becoming a longer and more meaningful phase of life. Along with life expectancy, the proportion of Australians reaching retirement age is also growing. Given the pressure this puts on the national budget, it’s crucial for those working in the sector to investigate how confident people feel about retirement, and to find ways to engage them in a conversation about it.

For the past four years, MSDI’s BehaviourWorks team and AustralianSuper have been collaborating on a study to paint a more accurate picture of how Australians feel about retirement. We want to understand how financial, social, health and planning aspects come together to shape retirement confidence.

Confidence impacted by the pandemic

Over four annual surveys, the Retirement Confidence Index has captured the sentiments of more than 4000 Australians aged 50 years and over. It focuses on four key areas: financial awareness and skills, health and wellbeing, social factors, and retirement awareness and planning. In 2020, the fourth wave of data was collected and an online interactive dashboard developed to showcase the results. The Index shows that people’s confidence grows once they have retired, and that financial literacy increases as pre-retirees head towards retirement. In 2020, however, people nearing retirement felt more uncertain about their future, which is contributing to lower confidence among this group. Our survey also found that people approaching retirement felt more impacted by COVID-19 than those already retired.

Articles were produced for Monash Lens and AustralianSuper on the findings of the work. Based on the study findings, our team will also be developing an online course to help AustralianSuper members feel more confident about their retirement.

The Index will be updated again in 2021, with collection of the next round of data already in progress.

Read more

- Retirement confidence: It’s more than just money
- The 4 key factors to retiring with confidence
How do enabling and constraining conditions shape children’s participation in urban planning processes for vulnerable settings?

I’m a qualified landscape architect and am currently a PhD student with MSDI. My research is exploring the key factors that influence children participating in urban planning processes, with a particular focus on vulnerable settings. My research is exploring the motivations of key decision-makers to involve children in urban planning decisions in a series of case studies including post-disaster reconstruction, water infrastructure revitalisation in informal settlements (RISE program) and refugee and internally displaced people camps.

2020 presented many challenges, but technology ensured I was able to conduct interviews via zoom. The time saved from travelling also allowed me to take on an additional case study which fills a gap in my research. In 2020, I published a book chapter Are children the key to designing resilient cities after a disaster? and a Journal article was accepted for publication in 2021 Critical agents of change? Opportunities and limits to children’s participation in urban planning.
Building Capacity and Empowering Leaders

With less than ten years remaining to realise the SDGs, we need everyone to play a role. MSDI is building the capacity of political leaders, policy makers, practitioners, and students to create change and lead for sustainable development.
How do we foster better political leadership in Australia?

Building capability and diversity

Political leaders drive the policies that shape Australia’s future. Increasingly, they’re working in complex environments and facing challenging public problems. Yet politics is one of the few vocations without structured professional development.

The McKinnon Institute is Australia’s only organisation dedicated to enhancing the effectiveness of our political leadership. It aims to build the capability and diversity of our state and federal members of Parliament through professional development programs that equip and enable political leaders to lead effectively. Non-partisan and not-for-profit, it was established in June 2019 through a partnership with Monash University and the Susan McKinnon Foundation. Having played a formative role in establishing the Institute, MSDI continues to work very closely with its CEO, Margaret Fitzherbert and the Deputy-Vice Chancellor Education, Professor Susan Elliott.

Meeting the challenges of the times

In 2020, the McKinnon Institute launched its ‘Political Leadership for 2020’ course. The Institute’s original plan was to develop a series of two-day, face-to-face programs. With the onset of the COVID-19 pandemic, this was translated into an online module format. It was delivered successfully to Victorian State MPs in May and NSW State MPs in June 2020. A total of 60 Parliamentarians participated across the two programs, which covered three overarching themes: leading in a crisis; leading in your community; and supporting yourself and your team. Each theme comprised a number of online modules, presented by different experts and complemented with online workshops and discussions.

MSDI led the design and development of the course and its modules, including sourcing high-profile guest speakers and facilitating workshops and discussions. MSDI’s BehaviourWorks team also delivered a module on ‘understanding community behaviour’, which looked at how behavioural science could help support behaviour changes required by the pandemic.

MSDI continues to play a strong role in the McKinnon Institute, through Professor John Thwaites as its Interim Chair and Professor Rod Glover as its Academic Director. In 2021 MSDI will be supporting the McKinnon Institute to deliver its flagship program: ‘Advanced Political Leadership’.

Are you interested in the McKinnon Institute’s professional development courses for parliamentarians and aspiring politicians?

Visit the McKinnon Institute website or Contact Rod Glover for more information.
BUILDING CAPACITY AND EMPOWERING LEADERS

How do we empower young leaders at Monash to contribute to a more sustainable future?

Two decades of growing the next generation of sustainability leaders

Twenty two years ago, a small group of Monash students created a program to equip students with the skills and knowledge needed to create transformative change within their organisations and their careers. Today, Green Steps sits as an established program under MSDI that has trained over 1300 alumni, and continues to inspire the next generation of leaders to create change for a better world.

Green Steps exposes students to the broad issues of sustainable development, the Sustainable Development Goals, and practical skills and experiences to help them figure out where they can make a difference in the world.

In 2020, 140 hopefuls submitted applications for the competitive program, with 36 students from eight disciplines selected to take part — the highest-ever intake for Green Steps.

Real-world experience

The ambitious student cohort took on interactive online workshops, as well as practical consultancy projects within and beyond Monash to apply their skills and confidence to make change in the real world.

Monash campuses provided ‘living labs’ for the students to bring unique perspectives to sustainability problems that the university has yet to crack. One project saw students create a carbon footprint for the student union at Monash’s Caulfield campus, providing targets and advice to track and reduce future emissions. The Beverage Container Analysis project saw students undertake an audit of pre-packaged beverages with campus retailers in preparation for the introduction of a container deposit scheme in 2022.

In 2020, students rated their knowledge of sustainability after the program as being an 8.0, compared to 5.8 before the program. Students said they had gained confidence, knowledge, skills, new networks and found the experience enriching.

Following a successful year, a celebration event marked Green Steps’ 21-year anniversary, with new integration of blended online and in-person experiences planned for the future of the program.

Do you want to develop the real-world skills and leadership capabilities to drive change for a more equitable, resilient world? Register your interest for Green Steps 2021.

We welcome interest from industry partners who would like more information and are interested in supporting this award-winning sustainability leadership program. Contact us.
How do we build the innovation skills and entrepreneurial mindsets needed to solve complex social problems?

Taking the training to high school students

In order to address some of our most urgent global challenges, there is a pressing need for young people to be more innovative and entrepreneurial.

MSDI’s Leave No One Behind program supports students to develop, test and refine a social business idea that addresses a social inclusion challenge in the community. It empowers students to harness training from their degrees, develop foundational entrepreneurial skills, and think outside the box to develop solutions.

In 2020, we took our university social entrepreneurship program to high school.

Building creativity and problem solving skills

We ran an adapted version of our Leave No One Behind program with year nine students from Kilvington Grammar School. We worked with 85 students over two school terms to help them explore their personal passions, build creativity, critical thinking and problem solving skills, and eventually pitch social business solutions. The program included a three-day face-to-face intensive at Monash University, and weekly workshops. Our University alumni who had completed the University Leave No One Behind program in previous years, also shared their social business ideas and pitches with the Kilvington Grammar students.

While the pandemic disrupted delivery of the program, forcing key activities online, the MSDI team adapted the program to achieve great results.

Kilvington Grammar students developed and pitched over 20 innovative ideas to address issues of disadvantage in their local community. Over 70% of students reported being more interested in entrepreneurship after completing the program. And over 80% said they had learned new skills that they would use again. Students said the program helped them build confidence, empathy and tenacity.

The program will be delivered again in 2021 with a new group of year nine students.

I’ve learnt that regardless of your age, there is always a way that you can help.

– Year 9 Student, Kilvington Grammar

Are you interested in running this program at your high school? Please contact Liz Bacchetti for more information on the program and how you can get involved.
How can we build the capacity of people and organisations to create change?

Expanding our reach
The COVID-19 pandemic and the associated lockdowns impacted our ability to provide face-to-face training in 2020. In spite of this, our Education and BehaviourWorks teams collaborated to expand educational offerings and deliver online skill-based modules for professional development.

MSDI's first microcredential
In 2020 we offered our first microcredential: Applying Behavioural Science to Create Change. This popular 8-week microcredential was designed to teach participants the ins-and-outs of human behaviour and how to influence it. It builds on the in-demand behaviour change education BehaviourWorks has been delivering for existing partners and networks. In a year when many people were trapped inside, our new course offered capacity building in behaviour change in a fully online format. The new microcredential was run twice in 2020 for over 140 students and is running again in 2021.

In addition to our new microcredential, BehaviourWorks also ran the INSPIRE course on behaviour change techniques to improve written communications.

Public Problem Solving
MSDI has also been collaborating with GovLab at New York University and Australian New Zealand School of Government (ANZSOG) to co-develop and co-deliver a 6-week fully online course on Public Problem Solving. The course aims to promote a deeper awareness of the innovation toolkit and the pathway for being an effective public entrepreneur. The goal is to build a skills accelerator that can serve as the starting point of an integral and supplementary offering of courses related to innovation in the public sector. The course will initially target mid-level public servants but with a view for the mass market.

Do you want to understand human behaviour and how to influence it? Our Behaviour Change Microcredential will empower you to create the change you seek. Learn more.
When a behaviour change approach works, how can we scale up its reach and impact?

A free toolkit for researchers and practitioners

Human behaviour is the key to solving many of our interconnected problems. From managing a pandemic without a vaccine, to dealing with climate change, behaviour change is crucial. So how can we scale up behaviour change interventions that have worked in pilot, to achieve greater reach and impact?

It’s a question that our BehaviourWorks team has been considering for some time. Now, with the help of our partners in the Victorian Government’s Behavioural Insights Unit, we’re providing answers. Together, we’ve created a free toolkit to help behaviour change researchers and practitioners scale up the reach and impact of their behaviour change interventions.

Planning for impact

Following a rapid evidence review in 2019, we held a series of interviews with behaviour science researchers and practitioners and a workshop to inform development of the toolkit in 2020. Interviewees included practitioners from Australian and international government behavioural insights teams, behavioural science consultancies, and international organisations such as the World Bank and OECD.

Our BehaviourWorks team then designed four prototypes of the Scale Up Toolkit, each of which were tested with users across government and industry. The fourth prototype was made available online in October 2020.

The toolkit helps practitioners and researchers to plan for impact in the early stages of developing an intervention, when uncertainty and flexibility is at its highest, and risk is at its lowest. It includes five tools, including frameworks to help pick the right behaviour and approach, and to help design the optimal behaviour change intervention. The website features a resources section which includes editable templates for each tool in the toolkit, and easy guides on how to use the tool. So far over 3300 users have viewed the toolkit.

We ran an online session introducing the tool to members of the Victorian Government Public Sector Innovation Network, with 50 practitioners from across the Victorian Government. In 2021 we’ll be working to embed the toolkit in our BehaviourWorks training programs and continuing to collect case studies and resources to add to the kit.

Learn more about the Scale Up Toolkit here.
In 2020 these MSDI change-makers were recognised for their passion to innovate and strive for real-world change in order to address some of the world’s most complex challenges.

Shirin Malekpour appointed to the UN Group on Global Sustainable Development

Dr Shirin Malekpour became the only Australian among 15 world-leading scientists chosen by the United Nations to advise on global sustainable development. Dr Malekpour, a senior lecturer at MSDI, was selected by UN Secretary-General António Guterres to be part of the Independent Group of Scientists that will draft the UN’s 2023 Global Sustainable Development Report. The Report is the peak scientific input to the UN on global progress on the UN’s 2030 Agenda and the Sustainable Development Goals.

John Thwaites appointed to The Lancet COVID-19 Commission

MSDI and ClimateWorks Chair Professor John Thwaites became the sole Australian appointed to the prestigious Lancet COVID-19 Commission. Professor Thwaites is one of 28 eminent global scholars, public health professionals, environmentalists and policy makers to be part of the Commission, which is helping speed up global, equitable and lasting solutions to the COVID-19 pandemic. For Professor Thwaites it’s an opportunity to make a contribution to one of the biggest global challenges faced in our lifetime.

Anna Skarbek named Mission Innovation champion for Australia

ClimateWorks CEO Anna Skarbek was named Mission Innovation champion for Australia, 2020, placing her in an eminent group of pioneering leaders committed to fostering international collaboration around clean energy R&D and innovation. Mission Innovation champions are selected for their ‘audaciousness and creativity’, with Ms Skarbek selected to join an international community of experts accelerating the clean energy revolution. As Australia’s representative, she hopes to gather stories from around the world where clean energy innovations are working, and bring them to Australia.
Rob Raven named among The Australian’s top 40 researchers in Australia

Professor Rob Raven was named among The Australian’s top 40 researchers in the 2020 Business, Economics and Management index. The national newspaper judged the five top researchers in eight disciplines by productivity (number of articles published), and impact and influence (number of citations) over the researcher’s career. Professor Raven, MSDI’s Deputy Director — Research, is particularly interested in how universities, policy stakeholders and communities can work together to quicken sustainable development across diverse areas like renewable energy, cycling, nature-based solutions, circular economy, artificial intelligence and net-zero precincts.

Paul Satur named Australian Young Water Professional of the Year

In 2020, Dr Paul Satur was named Australian Young Water Professional of the Year by the Australian Water Association. The award is for exceptional water professionals who inspire and drive a sustainable water future. Dr Satur is an environmental and social science researcher and practitioner with MSDI Water. He was recognised for his work progressing the water sector beyond best practice through innovation and excellence in community engagement, capacity building and empowerment initiatives for a more socially just and inclusive water future.

Felix Mavondo and Liam Smith win excellence awards from Australian Council of Graduate Research

Professors Felix Mavondo and Liam Smith won the Australian Council of Graduate Research Award for Excellence in Promoting Industry Engagement in Graduate Research. The award recognises the work of Professors Mavondo and Smith in establishing and running the Graduate Research Industry Partnership program: the program brings together PhD candidates with government and industry professionals to solve real-world problems.

Students benefit from unique support including skills training and industry placements, while industry partners have reported strengthened work through the ‘technical and innovative edge’ brought by PhD researchers.

MSDI students spotlight innovative organisations with AIM2Flourish awards

Sustainable Development Education students Shanika Saputantrie and Tim Ferguson, under the direction of Gitanjali Bedi, won the prestigious AIM2Flourish Awards. Their submissions spotlighted two positive business innovations that reflect the Sustainable Development Goals. Ms Saputantrie won the award for her submission on TABOO — a social enterprise that sells organic cotton pads and tampons. One hundred per cent of net profits go towards ensuring women all over the globe have access to safe menstrual products, and menstrual health education. Mr Ferguson won the award for his submission on HIVVE — a self-contained, low-energy, modular classroom system adjusting room temperature, lighting layouts and air quality, enabling sustainable infrastructure for students.
In 2020, we partnered with organisations and collaborators from across Monash and the world to produce evidence-based analysis on some of the world’s most pressing issues.

Our Academic publications and conferences

Our research is designed to make an impact and transform lives. In 2020, our researchers and staff contributed to the global conversation on sustainable development with over 115 research articles, papers, editorials and reviews. View a full list of our academic outputs for 2020 here.

Transforming Australia: 2020 Update

Our Transforming Australia 2020 report tracks Australia’s progress towards achieving the Sustainable Development Goals. It also highlights the impact of COVID-19 on Australia’s ability to meet the SDG targets by 2030. Transforming Australia measures Australia’s performance against a set of 56 indicators linked to the UN SDGs. It builds on targets and measures of progress that we documented in 2018. The report aims to stimulate a national conversation and dialogue about what Australia can and should do in the future, as we look to recover from COVID-19. Our work showed that Australia is performing well on health and education (as in 2018) but still failing to reduce carbon dioxide emissions, waste and environmental degradation. The report also shows the impact of the COVID pandemic — with higher levels of unemployment and the pandemic exacerbating poverty and psychological distress. Download the report.

Accelerating Action for the Sustainable Development Goals

MSDI is proud to have played a key role in the preparation of a major new global guide helping universities accelerate education for the SDGs that was launched in September 2020 by the UN SDSN. The guide aims to inspire and empower universities and higher education institutions with tools to provide learners with knowledge, skills and mindsets to contribute to solving the world’s sustainable development challenges — regardless of their pathway in life. The guide features world-leading examples of Education for the SDGs from Monash — including four case studies: MES, LNOB, Monash Malaysia’s Master of Advanced Engineering and Monash Business School. It also features an in-depth case study of how MSDI delivers interdisciplinary, multi-stakeholder, and action-based education. Download the report.
Integrated Water Management: Principles and Best Practice for Water Utilities

Australian and New Zealand water utilities have a long and successful history of providing safe, secure and affordable water, wastewater and drainage services to cities and regions. But with multiple challenges — from population growth to changing community expectations and climate change — the role of utilities is now being broadened. Authored by MSDI’s Professor Rob Skinner and Dr Paul Satur, this Water Services Association of Australia report (released in 2020) sets out a pathway of eight key outcomes to embed the principles of Integrated Water Management into servicing the Australian and New Zealand markets. Learn more about this work.

Recover and Reduce: Prudent Investments to Boost Economy and Lower Emissions

The COVID-19 pandemic has profoundly affected the Australian economy. In mapping out a recovery, we can also lay the groundwork to build back better. Our ClimateWorks team’s report identifies the government investment opportunities that will not only meet key recovery objectives of job creation and productivity growth, but also make material progress towards net zero emissions. Download the report.

Net Zero Momentum Tracker: Superannuation Sector

In the next of our series of reports on the Net Zero Momentum Tracker, we focused on momentum in the superannuation sector towards net zero. Our analysis found this sector was starting to make the transition as superannuation funds begin to commit to net zero. Conscious of the commercial implications of climate risks and regulatory, legislative, policy requirements for action, institutional investors are starting to act to address the likely impacts of global warming. They are also emphasising engagement activities, such as asking companies in which they invest to disclose, and in some cases, address, their climate risks. Funds are also making commitments to reduce emissions funded through their investment portfolios. But much more remains to be done. Download the report.
Net Zero Momentum Tracker: Transport Report

Our report on momentum towards net zero in the transport sector found that more was needed if the sector is to cut emissions in line with global goals. We evaluated the climate commitments of 32 Australian transport operators and logistics companies. We found that only one company — Qantas — had a target to reduce a significant proportion of its emissions. 22 are taking steps in that direction, but are not in line with the global goal of net zero emissions by 2050. And nine companies have no disclosed emissions reduction activities planned. Download the report.

Net Zero Momentum Tracker: Retail Report

Retailers are realising their important role in reducing Australia's carbon emissions. This report assesses the emissions reductions commitments and activities of the 23 leading Australian retail companies. The retail sector is Australia’s second largest employer after healthcare. As a sector, it determines consumer choices, and affects suppliers, producers and manufacturers across many other economic sectors. Our analysis in 2020 showed that four out of five companies currently are taking action to reduce their emissions or have a commitment to do so. No company yet however has made a comprehensive commitment that lines up with net zero by 2050. Download the report.

Net Zero Momentum Tracker: Local Government Report

Local governments are seizing the chance to lead on emissions reduction. Our analysis of 57 of Australia’s largest local governments shows 37% of them have committed to reaching net zero emissions by or before 2050. Collectively they represent 21% of Australia’s population. We found that 58% have a target or aspiration to reach net zero by 2050, and all of them are taking steps to reduce their operational or community emissions. Download the report.

Decarbonisation Futures: Solutions, Actions and Benchmarks for a Net Zero Emissions Future

ClimateWorks’ seminal report showcases how technologies in each sector can help us achieve our climate goals in Australia, while rebuilding the economy to be resilient for the future. It provides a guide for Australian government and business decision-makers on the technologies they should prioritise, how they should deploy them and what the benchmarks need to be to achieve net zero emissions. It builds on ClimateWorks’ lauded 2014 report — Pathways to Deep Decarbonisation, which modelled 2 degree scenarios. What we’ve found is that technological progress has closed the gap in the last five years, making zero emissions possible in all sectors. Download the report.
Issues Paper: Reshaping Infrastructure for a Net Zero Emissions Future

Infrastructure has a significant and lasting influence on Australia’s greenhouse gas emissions. Around 70% of our emissions are associated with infrastructure projects, according to the issues paper we published in 2020 in partnership with the Infrastructure Sustainability Council of Australia, and the Australian Sustainable Built Environment Council. Our analysis is designed to progress our understanding of the challenges and opportunities in reshaping transport, energy, water, communications and waste infrastructure in a net zero emissions world. It is the first step in a broader effort to reshape Australia’s infrastructure agenda.

Download the report.

Growth Through Transformation: An Investment Vision Guide for Climate Development

To achieve outcomes in line with both the 2030 Agenda for Sustainable Development and the Paris Agreement, developing countries will need an investment of US$2.6 trillion each year over the next decade. Our ClimateWorks team was hard at work in 2020 turning these targets into a reality with a guide to help countries implement their long-term strategies. *Growth Through Transformation: An Investment Vision Guide for Climate Development* supports governments to unlock investment, outlining a five-part process to create an enabling environment for green investment and align public and private sector finance with the SDGs and goals of the Paris Agreement.

Download the report.
2020: The Year of the Virtual Event

2020 was the year the world pivoted to webinars and virtual events. This shift provided an opportunity to broaden our reach and interact with new audiences from around the world.

Research Seminar Series
In 2020 MSDI’s Research Seminar Series moved to an online webinar format. The series featured academic presenters from across Monash and around the world to foster interdisciplinary conversations on the grand sustainable development challenges of our time. Topics included eating green, global plastic pollution, the role of data transformations to sustainability and more. Watch past Research Seminars here.

The Briefing Room
ClimateWorks Australia delivered a series of webinars as part of The Briefing Room. The sessions explored findings from the Decarbonisation Futures report exploring how major sectors of the Australian economy can move to net zero emissions. Topics included energy transitions, industry transitions, transport, the built environment, food and land use and more. Watch The Briefing Room events here.

Building Our Future
MSDI’s ClimateWorks team also partnered with the British High Commission to create the Building our Future webinar series. The three events in the series looked at how we can realise our decarbonisation potential and drive cleaner economic growth through sustainable finance, the business of net-zero and clean technology. Watch here.

Planetary Health Dialogues: Sustainable Healthcare
In May 2020 MSDI partnered with the Medical Journal of Australia to launch a special issue on Sustainable Healthcare. The keynote speaker was Professor David Pencheon OBE, who joined a panel of Australian health experts — including the MJA Editor in Chief, Laureate Professor Nicholas Talley AC — to discuss how the healthcare sector needs to be sustainable on multiple levels, especially in the face of the COVID-19 pandemic. Watch the event here.

Visit the Medical Journal of Australia.

Globalisation and the COVID-19 Recovery
In August 2020, Monash University’s President and Vice-Chancellor Professor Margaret Gardner hosted a special online event with world-renowned economist, leader in sustainable development and Chair of The Lancet’s COVID-19 Commission, Professor Jeffrey Sachs, to discuss what a roadmap to recovery could look like. In his keynote, Professor Sachs talked about the geopolitical, digital and ecological forces at play during the pandemic and how we are poised at another ‘hinge point’ in human history. Watch the event here.
ICSD2020
In September 2020, the International Conference on Sustainable Development, usually held in-person in New York City, moved online. Monash staff and students presented conference posters virtually and participated in a number of sessions. SDSN Australia New Zealand Pacific led a plenary session on “University Leadership for the Decade of Action”, which brought together leaders of some of the world’s top impact universities to discuss how universities can accelerate the achievement of the SDGs. The session was chaired by MSDI Chair Professor John Thwaites, and featured MSDI as one of the profiled Institutes. Watch the plenary session here. The SDSN Australia New Zealand Pacific team were also involved in a number of associated activities. They participated in the SDSN Leadership Council Meeting, and the launch of the statement of the Lancet COVID-19 Commission at the UN General Assembly. They also launched their “Accelerating Education for the SDGs at Universities” guide at the ICSD, and participated in the Global Solutions Forum.

Title: AI and Data Science for Sustainable Development
In October 2020, MSDI joined the Data Futures Institute (DFI) and Better Governance & Policy team to hold a webinar on five Monash interdisciplinary research projects in the area of artificial intelligence (AI) and data science for sustainable development. The event explored the potential of AI to transform how data is assembled and analysed to generate insights into complex social, economic, and environmental issues. Speakers unpacked topics such as machine learning, predicting responses to global change, citizen data, technological sovereignty and more. Watch the recording here.

Transforming Australia: Sustainable Development – Blueprint for Better Outcomes
In November 2020 MSDI partnered with Committee for Economic Development of Australia (CEDA) to launch the “Transforming Australia: SDG Progress Report 2020 Update”. Over 450 people from 260 organisations across Australia attended the online event where key findings and trends were presented and Australia’s progress and priority areas for action were explored. An expert panel discussed the impact and implications of the COVID-19 pandemic, what we need to focus on for the long-term and how decisions on global capital flows — that is where and why funds are invested — can influence and drive a sustainable future. Watch the recording here.
Thank you to our partners and funders

Our 2020 achievements are only possible because of the partnerships we have forged across the public and private sectors, working with policymakers, philanthropists and practitioners to deliver real-world impact.

To learn how you can be a champion for change by making a donation, please contact:

Michelle Armstrong,
Chief Operating Officer
T: +61 (3) 9905 3673
E: michelle.armstrong@monash.edu

In 2020, over 200 organisations across industry, government and civil society backed our work to pursue lasting change that matters. Thank you each and every organisation for your commitment to partnership with MSDI to address the most pressing problems of our time.

We also thank the many guest speakers from these sectors who gave their time to participate in our education programs. Your contributions help us to foster the ambition, curiosity and critical inquiry necessary for our students to address sustainable development challenges. The generous support of our private individual and anonymous donors must also be celebrated. Every dollar we receive contributes to advancing the wellbeing of people and the planet for current and future generations, here in Australia and around the world.

The collaborations that we have formed right across Monash are also paramount to achieving our mission. These include the ten Monash faculties: Arts, Art Design & Architecture, Business School, Education, Engineering, IT, Law, Medicine, Nursing & Health Sciences, Pharmacy and Science as well as Monash Malaysia and the Monash Indonesia. We also thank our program collaborators from Buildings and Property Division, External Relations Development and Alumni, Global Engagement, Monash Enterprise, Monash Graduate Research, Monash Learning & Teaching, Monash Warwick Alliance and the Work Integrated Learning Unit. Thank you also to the Monash central service divisions who support the day-to-day operations of the Institute.
Our team of researchers, educators, professional staff and PhD students bring with them deep and broad knowledge and skills in sustainable development, education, engagement, policy and impact, operations and communications. In 2020, these were the people who helped us make a difference.

### 2020 Staff and PhD Students

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<tr>
<th>Name</th>
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<tr>
<td>Fatima Abdulrahman</td>
<td>Clare Boulton</td>
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<td>Bhavika Agnihotri</td>
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<td>Jennifer Dam</td>
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