Imagining a Different Future

Overcoming Barriers to Climate Justice Conference, Arts & Community Events

8-10 February 2018, Hobart, Tasmania

Rapporteur's report

Acknowledgement: This report of *Imagining a Different Future: Overcoming Barriers to Climate Justice Conference, Arts & Community Events, 8-10 February 2018* was prepared by Lauren Hargrave, Ashleigh McCoach, Frances Medlock, Kate Raffety, Brook Dambacher, Rebecca Byrnes and Matthew Stilwell of the *International Justice Initiative*, a public interest initiative of the University of Tasmania's Faculty of Law, and reflects their views.
http://www.utas.edu.au/law/left-quick-links/international-justice-initiative

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Table of contents

Opening and Welcome to Country

Jan Linehan and Peter Lawrence (University of Tasmania), in their capacity as Co-Convenors of the Conference, welcomed all guests to the Conference. Jan introduced **Aunty Verna Nichols**, and acknowledged the traditional custodians of the land on which the Conference is taking place, as well as indigenous elders past and present.

Aunty Verna Nichols gave the Welcome to Country. She respectfully acknowledged the past and present owners of the land on which we stand, acknowledging the life of those who lived on the land, including their history, storytelling, and hunting on the land. She honoured this history, as well as the indigenous people today, and those who support indigenous people now. She spoke about the relation of climate and country, the connection between people, and the connection of nature and place to art. As an aboriginal artist, Aunty Verna viewed this connection between people, nature and art with pride. She concluded by welcoming all to the Conference.

Dianne Nicol (Provost, University of Tasmania) officially opened the Conference on behalf of the University of Tasmania, thanking all guests for attending. She congratulated Jan and Peter on the event, noting the achievements of University of Tasmania Law Faculty staff and alumni in the area of climate justice. Dianne noted her particular research area of law and bioscience, recognising the synergy between those areas, noting there are also a number of synergies between areas in climate justice. The interdisciplinary nature of science and law is important, and developing these together is crucial. Further, the inclusion of ethics and philosophy in these areas is relevant, for example, in relation to the patentability of genes. She noted that intellectual property is similarly important in the development of climate change law. Interdisciplinary work is clearly important in the area of climate change, as it requires understanding of policy, decision making processes, and climate science. She suggested that to build effective climate regimes, we need to take an interdisciplinary approach, and include international legal and policy experts. Dianne expressed her hope that such an integrated approach will be seen in Australia in the near future. The Conference could have a role in interjecting elements of ethics and justice into the discussion of climate change in Australia more broadly. This interdisciplinary approach is reflected in the Conference program, such as the public talk on Thursday, the community event on Saturday and the involvement of musicians and artists in the Conference program. She concluded wishing all participants a productive and enjoyable conference.

Peter Lawrence spoke briefly to two key themes of the Conference. Firstly, the engagement of people across disciplines. This is in response to the urgent need to look at the problem of climate change differently, including involving the community. Reflecting this concern of where things are in relation to climate change, Peter stressed the need to engage different disciplines, including musicians and artists. Secondly, in relation to the title of the Conference, Peter expanded on the role of imagination. Imagination is vital to ethical action in relation to climate change – it is integral to the human condition, as without imagination, one loses their ability to make choices. Therefore, imagining a different future allows us to

make ethical choices in achieving that future. Peter then thanked the various sponsors and contributors to the Conference, with a special mention of Margaret Otlowski, former Dean of the Law Faculty.

Jan Linehan briefly noted the importance of creativity in the discussion of climate change, and how the Conference is an opportunity for the collective creative project of various disciplines coming together. She encouraged participants to reflect on creative thinking within their respective fields, and to use their creative thinking skills in coming together during the Conference.

Theme 1: Climate Justice – World Views, Justice & Ethics

Climate Justice – World Views, Justice & Ethics explored a range of issues about our outlook towards the world and the role of ethics and justice in relation to climate change, including the role of philosophy as a basis for moral obligations; how hope and despair can play a role in the perception of an individual's agency when addressing climate change; and principles that can guide the allocation of the Earth's remaining carbon budget and efforts to remain within it.

Keynote Session

Dirk Baltzly opened and chaired the session.

> ***Abstract: Marcus Düwell*** *discussed making sense of the topics of human dignity and climate justice from the perspective of philosophical thought. Climate justice is a challenge for human culture. Yet our current normative frameworks, which were a reaction to past threats, may not be fit to deal with the challenges climate change presents today. This situation requires a rethinking of the basis of modern and open societies in a future-oriented direction with a basis in human dignity. By imagining future generations who depend on similar life conditions to ourselves in order to have human dignity, we can create a consistent, intercultural, and compassionate understanding of ourselves, of others and of our outlooks for the future. This imagination of, and prescription for, sustainable action presupposes hope and the possibility of an open future. The results may present challenges to the post-war ideas of democracy and human rights, when the exercise of liberty rights seems responsible for many ecological challenges. Imagination is crucial for the possibility of transcending the individual perspective to find universal and intercultural understandings. Climate justice is therefore a challenge for human culture and climate projects are inherently efforts towards a shared humanity.*

Marcus Düwell (Ethics institute, Utrecht University) has worked in climate justice and bio-ethics with a focus on human dignity. His presentation *Human Dignity, Imagination and the Framings of Climate Justice* aimed to make sense of the topic of human dignity and climate justice from the perspective of philosophical thought. In the past, climate change was discussed together with new technologies and insights from natural sciences. Today, however, it is highlighted by other terms such as climate change denial and alternative facts, existing alongside the rise of nationalism and populism. Why is/isn't climate change on political agendas? When it is left off, can it be said that the future is on the political agenda? You could wonder whether this is the fault of individual choice or institutional systems. Further, there is a question whether the political institutions and normative order are even capable of discussing and shaping a future that deals with climate change.

Justice is central to politics and, therefore, climate justice extends its scope with inter-generational justice. There is an extension of distributive justice to future

people and to natural resources. However, there is a question whether our current normative frameworks are fit for this task and if they are responding to the current cultural situation. We should broaden the picture and therefore rethink the normative basis of modern societies to include future people in our political and legal order. We need cultural perspectives on a future-oriented ethics and politics that can be related to specific groups and traditions. This may not be restricted to redistributive justice, but may be reframed in terms of the universalistic basis of our moral and legal order.

The challenge in terms of normativity starts with rethinking the basis of modern, open societies for the 21st century. This was a reaction to a specific threat – that totalitarian states may overpower individuals and therefore liberty right need to be protected, as they are essential for the liberal order. However, the exercise of liberty rights seems to be responsible for ecological challenges. Perhaps wellbeing could be maximised without democracy and individual rights. Holistic and eco-centric approaches are incompatible with the normative priority of human beings. Therefore, rethinking needs to occur surrounding whether these post-war ideas are best suited to deal with climate justice.

The idea of human dignity and rights legitimate and limit the power of states. We have reasons to assume there are future people, who depend on similar conditions to ourselves. Present generations influence those life conditions. Therefore, we have a prima facie obligation to these future people, to keep the life conditions for future people open. Human dignity in this sense is a status of people and not a value. Ethics of human dignity commits us as agents to see others and their values as being worthy of respect. We don't need a form of moral realism to justify these commitments. These commitments are based in the rational consistent self-understanding of individuals themselves, not divine values or beliefs. The concrete context of the human rights regime that will follow will be suited to future people and community as it will be consistent for all people.

Kant's three maxims of common human understanding are the basis of understanding to develop a shared community where we accept others as equal. This is part of the possibility of forming shared communities with an open future. If the future is not open, we could not have duties to act according to rights of future people and sustainability would be irrelevant. Developing consistent views on the open future and finding cultural support is a necessary prerequisite for a concept of intergenerational justice. We hope that a future is possible where people can live according to the requirements of human dignity. Imagination of different and open futures is crucial for the possibility of transcending the individual perspective to find universal and intercultural understandings. Climate justice is therefore a challenge for human culture and climate projects are inherently efforts towards a shared humanity.

Abstract: Catriona McKinnon *discussed climate change and despair, noting that we must become 'prisoners of hope.' There are reasons for climate change to create emotional responses including despair. These, however, can be differentiated from despair as an attitude or dispositional orientation*

towards climate change. Two sources of despair towards climate change were discussed: inefficiency of one's personal emission reductions; and/or one's own inability to make a difference to worsening climate change through personal emissions reductions. Philosophical reflection shows that despair, as an attitude towards climate change, is not justified. Instead, to facilitate effective individual agency, and to take effective action on climate change, we must become 'prisoners of hope.'

Catriona McKinnon (University of Reading) spoke on the topic of *Climate Change: Against Despair?* building upon a previously published paper. Quoting Desmond Tutu, it was argued that we must become 'prisoners of hope', and that there are good philosophical reasons to do so.

There is bad news – climate change is worsening. There are certainly reasons to feel despair, particularly given contemporary developments in culture, economics and politics. Emotional reactions to climate change exist and ought to be taken seriously. However, a clear distinction is to be made between feelings of despair, and despair as an attitude or dispositional state.

Despair, as an attitude, can be understood as a loss of hope. Hope, in turn, has three core features. Firstly, positive evaluation of the objective; secondly, desire for the objective because it is positively valued; and thirdly, the belief that the objective is logically, conceptually and physically possible. Despair takes hold when the object of hope becomes considered impossible or highly unlikely, with the effect of debilitating the will and incapacitating agency.

Individuals have an attitude of despair towards climate change for two reasons. The *inefficiency* of personal emission reductions; and/or the *inability* to make a difference to worsening climate change through personal emissions reductions. However, the judgements grounding each type of state of despair are unsound, and so states of personal despair about climate change are philosophically unjustified.

In response to the first reason for despair towards climate change - the *inefficiency* of ones' personal emission reductions – the work of Kagan can be used to argue that at some point each individual emission *does* make a difference. Each personal emission reduction has a cumulative outcome. It was proposed that we cannot argue that individual emissions make no difference to climate change. So, in a state of uncertainty, hope rather than despair is justified.

In response to the second reason for despair towards climate change - *inability* to make a difference to worsening climate change through personal emissions reductions - the work of Estlund was noted arguing that we ought not to give into this type of dispositional despair, as a hopeful approach tends to increase potential to achieve our purposes.

In concluding, people who are in a state of hope increase the possibility that their agency can be effective. Therefore, hope is instrumentally important for taking action on climate change.

Abstract: Jeremy Moss *explored historical justice and the climate transition focusing on approaches that have been put forward in relation to allocation of the remaining carbon budget, such as the 'fault-based' principle – referring to responsibility for past emissions. While a number of objections to the use of the fault-based principle have been raised, it is relevant and can be applied. For example, the objection that countries were previously ignorant about the impacts of their emissions is not valid given the considerable emissions produced by countries since 1990 have absolved them of reasonable ignorance. The idea that countries should not be responsible for emissions made before territorial and other political changes is not a persuasive justification for avoiding this approach. While some claim the application of a fault-based principle as practically infeasible, it can be validly applied to inform countries of what their goals should be. Fairness for countries undergoing recent industrialisation should also be considered, which could be addressed through consideration of factors such as why emissions are made and the moral responsibility countries have.*

Jeremy Moss (University of New South Wales) explored *Historical Justice and the Climate Transition*, suggesting a fault-based principle should guide the allocation of the carbon budget. This requires taking into account why emissions are made and the moral responsibility countries have, and offers a way to redraw the map of responsibility in a useful way.

In a climate transition, we must know our goals, who is made better or worse off, and crucially how much we have to reduce emissions and on what timeline. A key part of this is determining countries' fair share of the remaining global carbon budget. There have been many approaches put forward in relation to allocation of the remaining carbon budget, including dividing according to who has benefited from emissions ('benefit principle'); capacities; equal division among countries; or by adopting a principle of historical responsibility whereby future allocation should be determined by a country's past emissions (a 'fault-based' principle).

Objections raised in regard to the fault-based principle, include 'why should I be responsible for what was done decades ago?' Though there are valid concerns, there must be a robust rule for past emissions. Using distributive justice, the fault-based principle should take into account other factors, such as the wealth of a country, but nonetheless this principle should apply to the carbon budget.

Other objections to the fault-based principle include the prior ignorance of some countries to the effect of emissions. In this circumstance, why should they be responsible for what they did not know would have negative effects? This objection is far less relevant than what it once was. In this regard 1990 (when the first IPCC report came out) represents an important shift in what countries should know, and even since this time developed countries continue to produce major emissions. Forty seven percent of world emissions have been emitted since 1990. Australia, for example, has emitted fifty two percent of its emissions between 1990 and 2014. These statistics suggested such an excuse is not relevant, for a large part

of countries' carbon budgets occurred were when there was no reasonable ignorance.

A further potential objection to the fault-based principle is that it is not fair to apply it to countries that have had a change in territory or political regime since past emissions were made, as this change in territory is argued to weaken the links of responsibility. In response to this claim, it has been argued that generally countries should still be responsible for past emissions, however, in exceptional circumstances this responsibility could be absolved, for example when a dictatorship ends.

Therefore, a fault-based principle cannot be strongly opposed. The implications of using such a fault-based principle would leave countries such as Australia with a very small carbon budget and require negative emission reductions. Many people may say that it is un-deployable, and that it does not apply in the real world because the results are not feasible. Developed counties might argue that the fault-based principle will leave unmanageable liabilities and that they cannot make the required transitions in time. However, the fault-based principle still tells countries what their goal should be.

A fault-based principle cannot be the only approach, and other factors such as capabilities should also be considered.

The case for countries undergoing recent industrialisation is more complicated, as there is the potential for unfairness to countries that are currently going through industrialisation. However, we should also consider how we calculate emissions. Current methods for calculation can be flawed, as they often do not take into account why emissions are made, and the moral responsibility countries have. Taking factors such as this into account can ease the burden on developing countries.

Neoliberalism/Growth

Abstract: Neoliberalism/Growth *addressed the challenges and limitations of the existing neoliberal model and its relation to fairer and more effective climate policy.* ***Rosemary Lyster*** *discussed the concept of markets for ecosystem services, and their efficacy in protecting ecosystems. They reflect some key tenets of neoliberalism including privatisation and commodification, and evidence has shown that a focus on these approaches do not protect non-human capabilities and are unlikely to promote climate justice, raising a question of "how will the law respond?"* ***Karey Harrison*** *discussed the neoliberal reliance on continuous growth, and the use of economic modelling and market mechanisms when devising climate policy. Climate change will negatively impact GDP and economic growth, yet climate policies often rely on the model of continuous economic growth. Climate change, rising inequality, and unsound neoliberal policies reflect a crisis of capitalism.* ***Jeff McGee*** *spoke about the "bad timing" for addressing climate change as countries embrace a political economy based on neo-liberal assumptions. The work of theorist Karl Polanyi, on the relation between markets, societies and states, can help to inform us about neo-liberalism and how to 're-embed' markets in society to advance the common good and address climate change.* ***Dan Cass*** *put forward a strategy for renewable energy that balances capitalising on the economy of renewable energy systems, while maintaining a deeper critique of neoliberal policy that has historically blocked climate action. Such a strategy can be beneficial for both working towards alternatives to neoliberalism, while taking advantage of momentum to build competition and lower prices in the renewable energy sector. Discussion followed about how to overcome the embedded social ontology of neoliberalism, which focuses primarily on market logic and the individual, at the expense of common good. Participants suggested models for other ways of looking at the world, including a return to social solidarity and creation of social aims and goals; the potential for an anarchist social ontology informed from a radically different theory of social organisations; and a general re-orientation of how we think of ourselves, recognizing the importance of considering the forms of language used when considering these issues.*

Ben Richardson opened and chaired the session.

Rosemary Lyster (University of Sydney) presented on the topic of a capability approach to climate justice, discussing *Neoliberalism, Climate Justice and Non-human Capabilities*. This approach acknowledges two essential tenets of flourishing (freedom and functioning). Climate change fundamentally undermines and can destroy capabilities. Referencing the work of Martha Nussbaum 2017, the capability approach recognises that diverse human communities are inextricably bound to one another and myriad other species through political, economic and ecological relations at the global scale. Thus, the capability approach is remedial, and aspirational. By accepting other species as a subject of justice, there is a potential for humans to act in ways to support their capabilities. In application to ecosystems, the capability approach may either recognise the extent to which human capability depends on environmental or ecosystem services, or, extend the

capability approach to them by recognising what functioning ecosystems do for all humans and non-humans.

Under neoliberalism, natural resources and ecosystems are privatised, commercialised and commodified, while state governance is eroded in favour of market mechanisms. These market mechanisms and private sector actors remove the issue from political contention. Further, citizen's influences on policymakers are constrained. At the same time, there has been a rise in transnational policy entrepreneurs 'selling nature to save it'. As part of this approach, market-based instruments have been entrenched transnationally, dating back to the 1980s. Biodiversity offsets and ecosystem services are conceived as the ecological characteristics, functions or processes that directly or indirectly contribute to the human well-being. This 'natural capital' is given estimated value in economic terms.

The idea of ecosystem services faces challenges on an ethical level, such as concerns around the commodification of nature. Challenges include that public goods are non-excludable and non-rival and cannot be traded, while a technical challenge poses many questions. For instance, what constitutes 'no net loss' of biodiversity, and against what metrics shall these be measured? What baselines should be used? There are issues around what calculators should be used, uncertainty, and what multipliers should be used. Should a market approach be taken, or strategic landscape planning? Finally, governance issues arise in relation to the mandatory or voluntary nature? Transparency, compliance, management and monitoring all raise issues. In 2016, an article in *Bioscience* stated that barely any empirical evaluations of offset schemes exist. However, a study of the Hume Highway in 2017 illustrated perverse outcomes and loss of native animal habitat. A 2017 article further stated that offsets for no net loss of native vegetation clearing has a time lag of 146 years.

Ecosystems are not anthropocentric, utilitarian, or instrumental, as humans rely on the rest of nature, and are part of the biosphere. Instead, recognition of a mix of monetary and non-monetary pluralistic approaches with broadened public discourse is required. Uncertainty and resilience must be considered, as well as social power relations that affect the way trade-offs are imposed. Empirical evidence has shown that biodiversity services do not protect non-human capabilities or facilitate their freedom and flourishing, and are very unlikely to promote climate justice. The question now is how will the law respond, and will it respond? Especially in the face of neoliberal deregulation and 'cutting red tape'.

Karey Harrison (University of Southern Queensland) presented on the topic of *Limits to growth and fair shares: Neoliberal economics leads climate justice astray*. Currently, people in developed countries are using more than their fair share of the global commons, at the expense of people in developing countries. Climate justice literature tends to assume economic growth will continue, thus providing funding for sustainable development, and allowing poorer countries to develop. However, this reflects a reliance on economic growth and market mechanisms. Australian climate policy modelling similarly assumes economic growth and a doubling in

production and consumption. Modelling based on continuous economic growth often assumes that climate change will not affect future growth. In reality, the impact of climate change will convert areas of the world currently used for food into deserts, and the productivity of the ocean will decline, having a large impact on civilisation. Lovelock proposed that a climate-changed world may only support about 2 billion people. These changes evidently involve a massive disruption on a global scale, and are not consistent with a functioning economic or political system. Certainly, it is questionable that GDP will continue to grow under such conditions. Despite this, climate justice focussed policies often accept mainstream modelling.

The problem with economic calculations of GWP (all market exchange) is that it includes money spent on fixing climate related damage. The counting of repairs as contributing to economic growth, despite no new infrastructure, means that climate damage is included in economic calculations as a *positive*. Therefore, this modelling cannot be used in accounting for the cost of climate change. Instead, taking account of the real cost of climate related damages, it is suggested that the economy will peak, and may then rapidly fall back towards pre-industrial levels. The modelling in the Club of Rome 'Limits to Growth' included pollution and greenhouse gasses, as well as population growth, in a model that shows large-scale collapse in 2040. The CSIRO has subsequently matched Limits of Growth modelling to actual data, and found modelling has so far been generally accurate.

Internationally, the shares of wealth have been unequally distributed as a result of neoliberal policies. 82% of all the wealth created in 2017 benefitted the richest 1%, with no wealth increase for the poorest half of the world's population. This kind of economic context has the potential to give rise to fascism. This is the ultimate crisis for capitalism, as it creates a world in which growth is no longer achievable. In a world that does not support modern democracies, there is the potential for a 'neo-feudalism'. This could take the form of either an undemocratic fascism, or a shared, sustainable anarchist form of government.

Jeff McGee (University of Tasmania, IMAS) discussed ideas relating to *Polanyi, Neoliberalism and Climate Change*, and expanded on the idea of 'bad timing' (Klein, 2014), and the rise of neoliberalism after the Cold War. Climate change moved onto the agenda just as the world was transitioning into a new type of political economy. That is, the shift towards neoliberalism in the late 1980s and 1990s. This has resulted in a political discourse which intrinsically accepts neoliberal tenants, at the expense of the concept of 'common good.'

The work of Karl Polanyi is useful in unpacking this. A political economist and sociologist, Polanyi wrote a history of economic institutions in the West. This outlined many ideas now taken for granted, such as globalisation and markets. For example, globalisation's first wave occurred with British free trade and marketisation, which was a deliberate move away from more localised trade in the mid 1800s. The idea of the self-regulated market arose at this time, and had significant effects on society, distinct from the economy.

Key concepts include the embeddedness of market within society, and the market's role in dis-embedding the economy from society. Foundational goods, such as human labour, land and money, have been brought into the market system, but should not be, and create crises in this position. Further, markets do not appear spontaneously, but are created and often imposed by governments. However, the idea of neoliberalism has been kept alive by economist theorists, even through the years of Keynesian mixed economies, and was revisited in the 1990s. Key theorists include Hayek and Friedman, and ideas such as deregulation, marketisation, and privatisation. They attacked the ability and the role of the state to regulate for the public good. These ideas are evident in the words of Reagan and Thatcher, and such language regarding the role of the state has subsequently been accepted into modern public policy discourse. It forms the basic 'instinct' of governments to allow self-regulation, rather than state regulation, of the market.

Unless there is a shift away from this way of thinking about public policy, there is a significant danger that Polanyi's observation of the disembodied market undermining the conditions of its own reproduction, will come to pass. Within this individualistic and contractarian way of thinking, the idea of the common good and social good is discredited. This means that discussion of environmental policy often takes places in terms framed by the neoliberal approach. The starting point for justice under neoliberalism is what the market provides. Therefore, the struggle for a safe climate is really about re-embedding the market back within the conditions of its own production.

Dan Cass (The Australia Institute) put forward a strategy of *Renewables as Climate Strategy: Generating Power from Energy*, which on one hand, requires an unprecedented alliance with the capital that is generated in renewable energies, but simultaneously also fosters a deeper critique of the philosophy of growth.

In cataloguing the numerous environmental philosophies in the 1980s, the diversity of opinion is striking, especially when compared to the limitations of neoliberalism environmentalism in the 1990s, of which the main solutions were market based. Thatcher captured the totality of the rise of neoliberalism when she declared 'there is no alternative.' As surmised by Bauman, markets are eroding state power, including its ability to build social goods and intervene. The global ecological crisis requires an impactful state, yet just when the state is needed to step up, it lacks the power to do so. Protests in Rio against the UN Framework Convention on Climate Change, and the agenda of some environmentalists there, reflected a protest against the 'market fetish' for a price on carbon.

The neoliberal carbon price strategy has failed, but a popular politically powerful policy can provide a viable alternative. There has been about 90% public support for over a decade for renewables, as found in a poll in 2006 by Newspoll. So renewables have the popular mandate, and provide an opportunity to use the power of business to help get climate action. It has been predicted by Bloomberg New Energy Finance that even without subsidies that the global market for solar and wind will grow substantially.

Therefore, we must create an alliance between clean energy investors and the climate movement and millions of solar homeowners. We actually need to argue for *more* capitalism in the National Electricity Market. The NEM is an artefact of the rise of neoliberalism, and therefore needs to be more open to competition from batteries, solar, and new business models to combat the neoliberal system of the NEM.

Policies that drive both technological and political transformation at the same time must be promoted. This allows both creating growth, and making electricity generating more democratic. An example is community owned electricity generating. In this context, the Australia Institute today launched a report for Tasmania proposing that Tasmania should emulate the model used in NSW. Community ownership allows economic alternatives to neoliberal environmentalism to be built, working with capital and innovators to force more competition in electricity markets. Community owned renewable energy is a viable model, while also encouraging growth in the sector.

Moral Corruption/Anthropocene and Ethics/Transition

Abstract: *This session explored a range of themes and advanced discussions on strengthening collaborative efforts in a range of areas to address climate change.* ***Liesbeth Feikema*** *built on Gardiner's definition of moral corruption noting that for future generations to comprehensively address climate change we have to more systematically institutionalise obligations.* ***Jonathon Pickering*** *discussed transnational impacts, examining arguments for and against countries providing assistance to other countries for the impacts they have caused, and how such assistance should be guided by the principle of common but differentiated responsibilities.* ***Neil Ormerod*** *discussed the Papal Laudato Si stating how it re-orientated environmental thinking to an essential part of Christian life.*

Marcus Düwall opened and chaired the session.

Liesbeth Feikema (University of Utrecht) addressed *Corruption and Climate Change, An Institutional Approach*. After noting Gardiner's definition to moral corruption, and his explanation using the storyline of Sense and Sensibility it was suggested that this definition should be built upon. This was done by noting the intrinsic features of a promise. One intrinsic feature of a promise is that circumstances remain equal throughout the promise. In the storyline of Sense and Sensibility the circumstances do not remain equal, the nature of the relationship was redefined from the making and moment of the promise. Building on Gardner's definition, a more defined and systematic approach to moral corruption was suggested; "moral corruption is the undermining of the social norm that one pretends to comply with, by intentionally – and unjustly – reframing the original circumstances and adapting the obligation(s) under that norm in a way that better suits one's self interest." It was acknowledged that institutions have moral obligations. Legally, these obligations were first recognised in the neighbour principle in *Donoghue v Stephenson.* In concluding, future generations in addressing climate change firstly have to institutionalise obligations to avoid moral corruption. We have to keep in mind the danger of these open norms.

Jonathan Pickering (University of Canberra) explored *Supporting A Just Transition: National Responsibilities for the Cross-Border Impacts of Climate Change Policies.* One contentious issue in climate negotiation is the impacts of the implementation of response measures. Recently, this issue has broadened to cover the just transition of the work force away from fossil fuel industries that have transnational impacts (i.e. where a country's actions have impacts beyond its borders). There are arguments both for and against countries providing assistance to other countries for the transnational impacts they have caused. There are arguments against providing assistance, including that 1) in the global economy there is no general obligation to compensate for economic impacts; 2) the losses are too hard to quantify; and 3) affected countries have means to cope. However, there are countervailing reasons, including 1) the extension of the principle of common but differentiated responsibilities; 2) that some losses are quantifiable; and 3) not all affected countries are able to cope.

If there is a rationale for providing assistance in some cases, the principles to do so should develop from common but differentiated responsibilities. This would mean that the countries that are least responsible and least capable in coping should receive assistance, while countries with greater responsibilities and greater capabilities should provide assistance. Assistance should be delivered by estimating the net adverse effects on the least responsible/capable countries, building effort-sharing arrangements among the most responsible/capable, and delivering assistance through existing/new social protection mechanisms. In summary, response measures should not derail other efforts to tackle climate change. However, it is critical that climate policies do not push vulnerable communities further into poverty. A collaborative effort is required.

Neil Ormerod (Australian Catholic University) spoke on the topic *Laudato Si: A Case for Action or Wasted Opportunity?* In *Laudato Si* Pope Francis is considering how to re-orientate environmental thinking as a non-negotiable element of Christian life. By doing so the Pope rejects one interpretation of Genesis 1:28 and seeks to prompt a change in lifestyles away from consumerism and the techno-economic paradigm. It is clear that in *Laudato Si* the Pope wants to have a direct impact not only on the Catholic Church but also more broadly. However, a recent National Church Life Survey shows that a large number of Catholics are not familiar with *Laudato Si.* Concluding that while the sleeping giant of the church may have arisen, more is needed for a fuller awakening on the issue. Participants raised a number of questions including, whether *Laudato Si* has influenced government thinking, a number of questions about a just transition in light of cross border effects, and broader questions including how to communicate all of these issues and stories to a wider audience.

Justice, Duties, Differentiation

Abstract: *This session focused on notions of justice, duties and differentiation.* ***Karin Hutflotz*** *discussed how we can do justice to each other, by exploring the notion of justice and suggesting that people work towards an intersubjective concept of justice by sharing experiences, listening to each other, and addressing fundamental questions to find common ground.* ***Thierry Ngosso*** *discussed how both states and individuals have obligations to reduce emissions and distinguished between different types of emissions, such as luxury and subsistence emissions, and different types of societies, such as burdened societies and well-ordered societies, as a basis for more effective cooperation to address climate change and related issues.*

David Coady opened and chaired the session.

Karin Hutflotz (Munich School of Philosophy) addressed *How to do Justice to Each Other? Reconfiguring the Notion of Justice in Climate Change Discourse.* To do justice to each other, people must work towards an intersubjective concept of justice. Currently notions of climate justice are often based on the idea of debtors and creditors. It is extremely difficult to determine who is the debtor in climate change issues, and yet people still hold on to this idea. It is difficult or even impossible to figure out costs, now or in the future. Additionally, justice is often described as abstract concepts and does not take into account social reality. Therefore, an intersubjective concept of justice should be worked towards. To work towards an intersubjective concept of justice, people could employ a 3-step program that involves sharing experiences, learning to listen to others, and asking fundamental questions in groups of high diversity, whilst meeting as equals. This would give everyone the opportunity to be a part of the discussion and hear all viewpoints. When working towards an intersubjective concept of justice, conflicts could be used as a resource. This could be the main resource of understanding and community building, and it would force people to focus on real values, and a common ground for basic human rights. It would not be necessary for people to agree on details or the content of values, but it is necessary to have a task or problem in common, to pursue a common goal, and to recognise people as equals and individuals at the same time. This is an ongoing recognition process.

Thierry Ngosso (University of St. Gallen, Switzerland) addressed the question *Acceptable Pollution and Unacceptable Pollution: Do Burdened Societies Owe Strong Climate Obligations to their Citizens?,* considered both the role of luxury and subsistence emissions, as well as what a burdened society is, and how these countries can demonstrate they are willing to become well-ordered societies and to reduce emissions. A burdened society may be defined as one that is willing to become a well-ordered society, but is not able to achieve this objective independently, as they are trapped by what can be considered as historic burdens, such as weak economic structures. The use of 'burdened society' terminology versus 'developing' terminology is important, as it is less paternalistic, and can put more weight on the individual, rather than the state. In the area of climate justice,

obligations at the global level can be determined by calculating emissions, and whether the relevant emissions are luxury emissions or subsistence emissions. Some argue that it would be unfair for wealthy countries to continue to emit luxury emissions while other countries remain poor. This is not to say that burdened societies have no obligations at all, just that they have a strong obligation to improve the lives of their own people, which often requires some level of emissions. At the same time, some emissions in burdened societies are luxury emissions, and burdened societies should have a strong climate obligation to reduce their own luxury emissions. Additionally, if burdened societies do not do whatever they can to reduce emissions, this can ultimately serve as a barrier to climate justice. A question arises as to whether emissions are luxurious or not. One way to determine this is to see which emissions are acceptable, as people need them to live a reasonable life, and which are not needed and thus unacceptable. However, using this acceptable and unacceptable distinction is more of a political than a moral decision, and it is known that most political communities have highly divided ideas. Alternatively, the simple distinction could be used of emissions that either can or cannot be avoided to live. This is less likely to be politically influenced and emphasises individual responsibility. Burdened societies should do what they can do to reduce luxury emissions. However, because of their relatively weak situation, they should be helped by well-ordered countries. This help should, in turn, be based on the burdened society seeking to become a more well-ordered society, which can be demonstrated in many ways. For example, many burdened societies rely heavily on natural resources. Reigning in natural resource use, increasing taxes, and becoming more vigilant in how taxes are used can have economic benefits while changing relationship between rulers and citizens, and making decision-making more accountable.

Discussion: Participants raised a number of questions during the discussion following the two presentations, including: what meeting as equals means in the context of working towards an intersubjective concept of justice; how to take into consideration people's development level when determining what luxury emissions are; whether it is fair to increase taxes on citizens when only a small proportion of the community can afford to have luxury emissions; and what individuals can do in response to climate change.

Theme 2: Barriers – Science, Governance, Economics & Equity

Theme 2 – Barriers explored issues of science, economics, ethics and governance including issues that arise when seeking to address climate justice in relation to democratic systems, to achieve an equitable sharing of burdens, and to address the underlying scientific facts of climate change. This theme was developed in the following keynote session.

Keynote Session

Jan McDonald chaired the session and introduced the three speakers.

> ***Abstract: Robyn Eckersley*** *discussed how to win political legitimacy for climate justice in the face of pluralism, and whether there is a fundamental tension between democracy, and achieving the collective and mutually beneficial goal of climate justice. Eckersley argued that we do not have to accept an inevitable clash between democracy and climate justice, but that justice as a normative principle is integral to democracy. Further, there is a need to engage citizens, explore new political connections, and draw linkages between looming climate disaster, and problems that are real and ongoing in democracies today.*

Robyn Eckersley (University of Melbourne) spoke to the topic of *Democracy and Climate Justice: Never the Twain shall meet?* She suggested that in order to achieve climate justice, political legitimacy must be achieved. However, there is no consensus on a single principle of climate justice, and multiple principles inform climate negotiation. For example, there is an inverse relationship between concepts such as responsibility and capacity, and contribution and vulnerability. These issues were previously addressed through the principle of common but differentiated responsibilities but it was found too hard to reconcile on the international level in the Paris Agreement. As such, disagreement is evident between ethicists, experts, and, of course, politicians.

There is a tension between the need to achieve collective rational outcomes, while also ensuring an open pluralistic democracy. How can we reconcile this tension, and achieve a robust outcome? One theorist has suggested that irreversible climate change is an unavoidable fact of political pluralism. As a result of this 'dilemma', some climate scientists are flirting with the idea that authoritarianism may overcome this problem. This is not necessary, as the dilemma is both misleading, and complacent.

It is misleading because we do not have to accept irreversible climate change in a true democracy, as democracy does not necessarily take place by virtue of neutral decision-making processes. There is a substantial normative process that occurs in decision-making. What about justice as central to a liberal democracy? Civil and

political rights are mutually constitutive of democracy. Free political agreement must be upheld, but civil and political rights, and environmental rights, are necessary to uphold free debate and democracy. Further, a number of various dimensions of justice are active in the climate debate.

The theory of one person equals one vote rests upon an idea of human dignity and the individual. This normative principle of recognition is very important but does not recognise the impact of policy on non-citizens (e.g. the environment). This is an example of a paradox at the heart of democratic theory – that the boundaries of the demos cannot be determined democratically. The source of power is the votes of the people, but institutions of democracy cannot be conflated with the norms that create that democracy. Democracies have prefixes, they are coloured and shaped by pre-democratic normative commitments that give them meaning. To accept the dilemma above is to be overly binary.

The dilemma is too complacent about existing democracy, because it assumes the correct operation of democracy. For example, what about gerrymandering? Democracies are fragile and prone to destruction. It is not enough to wait until a crisis, such as the holocaust, to act.

More radical critiques include environmental democracy, and ecological democracy. There is a difference between the two. The former is a critique of components within the current democracy and requires asking for more transparency, for instance. The latter is a critique of the elements that actually form a democracy, and the underlying norms. Ecological democracy offers a broader critique – for example, if boundary drawing can never be done democratically, then do not focus on them. Certainly, a rule of law is necessary, but there is a need to look outside. An example is when something is done in the name of the nation, but is very harmful for the global polity.

These are dark times for democracy. At the moment, we need environmental democracy, to gain traction with citizens. We must draw connections between looming climate injustices, and problems in democracy right now. We must ask who would actually consent to undoubtedly harmful and un-transparent decisions, if they had the ability to say no? Yet these decisions are being taken now, locally and internationally, on a large scale.

We must hold this conversation within the already existing distorted rules. Interestingly, the political Greens and the new left have more in common with the older conservative movement, while the older left working class has more in common with the new right. We must work to form connections across this political spectrum, and build bridges, including outside of the 'climate bubble'.

Abstract: Steve Vanderheiden *addressed climate justice by refocusing and moving beyond his previous work on the evolution of the concept of burden sharing, to include future oriented and speculative ideas of the relationship between justice and democracy. Justice and democracy have primacy at different stages of climate policy, that is, at the level of international decision-*

making and national implementation, respectively. Justice and democracy, however, rarely meet. There should be a normative, rather than merely empirical reconciliation between these two concepts. Both input (procedural) and output (substantive) justice involves the same set of normative commitments. They are not distinct in application or scope but apply in a symbiotic way, adherence to which may bind democratic institutions by equity commitments, where equity is constituted democratically. There is need for experimental research into equity outcomes from different democratic forms.

Steve Vanderheiden (University of Colorado at Boulder) addressed *Climate Justice: Beyond Burden Sharing,* refocusing his previous work on the evolution of the concept of burden sharing to include future oriented and speculative ideas of the relationship between justice and democracy. Up to now climate justice has often focused narrowly on the outcome of treaty making processes and policies that allocate burdens among states and over generations. In particular, the focus has been on the equitable (or inequitable) manner in which burdens are allocated between states. Burden sharing outcomes are viewed primarily as being a result of decisions made by states, rather than collective individuals or agencies.

The idea of 'beyond burden sharing' indicates that the concept has evolved to include a variety of other components and procedural matters that have burden sharing outcomes. Under this approach, procedural and democratic process are seen as instrumental to the achievement of equitable burden sharing commitments. Procedural approaches are presumed to be pragmatic and are not noted in treaty language, but reflected in institutional design. Instrumental commitments to process confers lower priorities. The shallowness of the commitments in the UNFCCC may be what is undermining equity outcomes.

Climate policy can be considered a two-stage model, firstly where decisions are made at an international level and there is an equitable arrangement between nation states, and secondly where states action these pledges. In the first stage, equity in outcome is the primary criteria by which to assess treaties. The second stage is assessed procedurally, whether self-determination and democracy are upheld. Thus, justice and democracy have primacy in different stages. It is a false dichotomy to assume that equity only applies at the first stage and democratic commitments only apply in the second.

There are unsatisfactory hypotheses on the justice-democracy relationship: that the domestic outcomes are just because they are democratic; and that the democratic processes facilitate just outcomes. A way to cast this problem is to distinguish between input justice (justice concerns related to the processes by which climate policy is developed/administered) and output justice (justice concerned with the evaluation of substantive policy outcomes or their practical effects). The term climate justice captures many norms and procedural rules of assigning equity, such as north/south quotas on IPCC committee chairs. If we assume input justice guarantees justice in outcomes, we will likely be disappointed; justice and democracy rarely meet. There is an empirical reconciliation where input justice increases responsiveness to affected parties and empowers the vulnerable to make claims.

The proposal calls for a normative, rather than empirical reconciliation. Rather than reducing one to a causal factor in the other, it affirms both as related but non-reducible. Justice in the sense of an input, as well as output, requires the same set of normative commitments. They are not distinct in application or scope but apply in a symbiotic way. A third hypothesis is justice as requiring equal status and dignity. The input/output system does not require separate criteria but are interacting norms for constituting justice. The democratic institutions are then bound by equity commitments, where equity is constituted democratically. The norms and institutions are constructed upon public imaginary.

One of the implications is that there must be more empirical research on tendency of different democratic forms to generate equitable outcomes. There is a circularity problem in defining equity where there is no independent position to critique forms in empirical research. There will be a trade-off between inputs/outputs in a pluralistic ideal. Experimental research will have to answer equity issues of its own, such as, who or what counts? How are interest of absent/silent represented? These are research questions that will continue to make this field interesting and vital.

Abstract: Nathan Bindoff *explored changes to the oceans and cryosphere, drawing on assessments by the IPCC. The climate, across a range of scientific measures, has already changed and this was caused by human influence. These climate changes will impact a number of areas including future surface temperature and sea levels, which as a consequence will impact food security, food nutrition and economic stresses.*

Nathan Bindoff, Antarctic Climate & Ecosystems Cooperative Research Centre, discussed *Changing Oceans & Cryosphere: Assessments by the IPCC.* The IPCC (Intergovernmental Panel on Climate Change) has been labelled as a "remarkable example of mobilizing expert analysis to inform policymakers", while it has also been said that "the Assessments are as dull as dishwater."

IPPC reports have been occurring since the beginning of the UNFCCC, and are released every 5-6 years. The IPCC reports are one of the key activities that contributes to the UNFCCC and involves a significant number of the scientific community. The process is also a transparent one, and is different to peer-reviewed literature, which means that a high level of scrutiny goes into every IPCC outcome.

A key part of the climate change narrative is that CO_2 concentrations have increased forty percent from pre-industrial times, to levels unprecedented in 800,000 years and global average temperature has almost increased to pass the 1.5 degree C mark. Oceans have also warmed. Oceans are a key element of the climate system for a number of reasons, including that the oceans are holding back the rising surface temperature on the oceans. Multiple other lines of robust evidence support the conclusion that many aspects of the climate system have changed (i.e. sea ice, sea level). All of this evidence, of the components of the

climate system, shows that as concluded by the IPCC the "warming in the climate system is unequivocal."

There is strengthening of evidence that the cause of these climate changes is human influence. There are two hypothesis for the cause of climate change; human influence or natural variations. When we look at observations since the 1960s you can address these competing ideas. The IPPC has concluded "it is extremely likely that human influence has been the dominant case of the observed warming since the mid-twentieth century."

Looking to the future, there will be a global surface temperature change, and we also expect sea levels to rise. Even small changes in sea level rises make a big difference, as the one-in-one-hundred year flood becomes once every year. Sea level rise is a big issue. For example, based on a high emissions scenario, the sea level rise from Antarctic could be 15.65m by 2500.

In terms of fish stocks, the consequence of climate change result in a dramatic decline of the maximum potential catch. Twenty percent of the world's population depends on fish as a source of protein. Climate change will not just impact maximum potential catch but the migratory patterns of fish, which will have a disproportional impact.

Average annual losses (which are estimated economic stresses due to climate change) as a percentage of GDP are also much higher in Small Island Developing States compared with the global average.

There is some good news with a possible new mechanism, suggested through the recommendations of the task force on climate-related financial disclosures. The task force, with Michael Bloomberg as its founder, is pushing for the financial disclosure of climate related risk to every public business.

Discussion: Many questions were asked in this keynote session. Topics that were raised include: whether there is a process informed by equity in which Habermas' ideas or democratic processes can be injected into the procedural regime; how society can have a new system that offers true justice even with countries that are not democratic; who our 'enemies' are and why they are winning; how democracy is working in the context of Adani; and whether democracies should presuppose that they are bound by norms and evidence.

Science and Knowledge

Abstract: *This session on science and knowledge involved scientists, policy analysts, philosophers and academics and discussed the approaches of science sceptics and the causal attribution of extreme weather events. The disbelief or doubt of climate science is perhaps both due to sceptical audiences, and the reluctance of scientists to state alarming and urgent outcomes.* ***David Coady*** *addressed two epistemic errors of many climate change sceptics. The first is the failure to recognise truth, due to the pursuit of belief or avoidance of error. The second is an independence principle, mistakenly requiring scientific conclusions to be acquired with a high degree of independence of each other. Climate sceptics are often characterized as anti-science, but rather may have a misunderstanding of science.* ***Richard Corry*** *discussed attributing responsibility for extreme weather events. In answering whether climate change caused a specific event, we may ask whether it 'could not' or 'would not' have happened without climate change. Both tests are unsatisfactory to answer the causal question. If we measure how much of a contribution the cause made, the results may show climate change as a significant cause of events. Three discussants shared their responses to the presentations.* ***Sivan Kartha*** *highlighted the particular aspect of testimony. There may need to be better differentiation between scientific conclusions and normative judgements.* ***James Risbey*** *noted there is an inbuilt conservatism in science and a reluctance to talk about climate change as an alarming prospect.* ***Mel Fitzpatrick*** *addressed the silencing of scientists. Part of the problem is the well-funded misinformation campaign and attacks on climate scientists.*

Jan Linehan opened and chaired the session.

David Coady (University of Tasmania) addressed *Two Epistemic Errors of Many Climate Change Sceptic.* Climate sceptics are often illustrated as anti-science, but rather they have a misunderstanding of science. The first error is the failure to recognise truth. This may be due to prioritising either the pursuit of belief or the avoidance of error. We should not favour either the duty of pursuit or of avoidance over each other. These are imperfect duties. The demands of one must be balanced against the demands of the other. Excessive aversion to false beliefs is a common vice of science. This may indicate intellectual timidity. James was not arguing that knowing the truth or avoiding error is our only duty, he does not argue for intellectual recklessness. Russell's critique of the 'will to doubt' has had damaging outcomes, such as the development of scientific sceptics. They have changed from labelling themselves 'free-thinkers' in the past.

Those who identify as science sceptics are not sceptical of scientific methods as such. Scepticism is about finding the balance between doubt and certainty. Rather, the proponents of scepticism tend to be over-concerned about acquiring scientific beliefs, especially testimony. This is challenging because most people's beliefs on climate change are heavily dependent on what others tell them. Thus, they are not science but are opinion. Because the climate change debate is about who to trust, the debate is subjectively rational. Everyone's opinions are influenced by others who rely on the testimony of others who investigate. This is truer now than in

Locke's time. The general public is heavily reliant on scientists who are dependent on other scientists. We have to take what we hear on trust, but science seems to prescribe distrust unless demonstrated. Science does not tell us to trust nothing, the idea that there is something good about scepticism has led to confusion in the debate on climate change. Sceptics either do not believe climate change is a result of human activity, do not believe it is a bad thing, or do not believe we are responsible and have a moral obligation to mitigate the change. This does not entail disbelief or denial of scientific methods. Climate change is a political issue and has political implications.

The second error is the independence principle. This is a mistaken epistemological doctrine used by sceptics. A consensus of expert opinion is only evidentially significant to a non-expert if and to the extent that the parties to it have arrived at it independently to one another. There are two factors: the number of experts and their independence to each other while arriving at consensus. The science on climate change is too well distributed and wide for the scientists to be sufficiently independent. Experts (who are especially knowledgeable in their field) and meta-experts (those who know who are especially knowledgeable) are distinguishable, but often overlap in roles. For example, experts often know other experts. For this reason, experts need not arrive independently to each other, but they arrive at agreement by logical and sound processes. The scientists that come to be involved have consensus but sceptics are unconcerned by this. They deny that non-experts should be influenced by this consensus because of the lack of scientific independence. Where a consensus exists, it does not indicate the truth.

Richard Corry (University of Tasmania) discussed *Attributing Responsibility for Extreme Weather Events.* Over the last decade the media has paid a lot of attention to extreme weather events. This is not surprising as extreme events have large impacts on people and are therefore newsworthy. The question that often arises is whether it is caused by climate change, created by human emissions of greenhouse gasses. There is an epistemological challenge of what evidence we need to answer the question. While individual events cannot be attributed, a change in the probability of such events may be attributable. This is distinguishable by 'type level' and 'token level' attributions. Type level attribution is that climate change causes extreme weather events of the type seen or affects the probability of such events. A token level attribution is that climate change caused the specific extreme weather event. We might interpret the position that we can sometimes make type level claims but not token level.

Type-level claims are useful for risk assessment and management, and infrastructure and financial planning. We care about token level attribution for compensation for loss and damage. In such a case, causation must be established. Climate treaties have not succeeded in defining compensation mechanisms, however there has been some litigation against corporations. Token level is also important for government and public motivation.

In answering whether climate change caused an event, there are criteria such as whether it could not have happened without climate change. This may be too high

a bar, however, because although long-term models satisfy the test, the short-term tests of extreme weather events do not pass this test. The other test is whether it would not have happened without climate change. This is the classic 'but-for' test in tort law, or the 'counterfactual' test in philosophy. To test this claim we look to the nearest possible worlds or models that do not have climate change and see if the event occurs. We cannot run a perfect simulation but we do not need to. Extreme events are, by definition, improbable and the climate system is chaotic. If we apply the 'but for' test the outcome is that it will likely not happen in other models. The event probably would not happen without climate change and therefore climate change is probably the cause of the extreme event. However, this sets the bar too low.

We need to ask a different question, that is, when attributing responsibility in a case where there are multiple 'but for' causes, we need to ask *how much* of a contribution did the cause in question make? There is a current emerging field of the fraction of attributable risk which deals with the measure of attributable causation. This may measure climate change as a large cause of events, rather than concluding that we cannot answer the question.

Three discussants shared their responses to the presentations.

Sivan Kartha highlighted the particular aspect of testimony. There is a caveat of what kind of testimony we rely on scientists for. There are several highly technical questions that rely on sophisticated analysis and have inherent normative importance. An example is two degrees, the threshold we must not pass. This number is a scientifically informed determination but is ultimately a value judgment. The proposition of suitable limits, such as two degrees, is a value judgment of what we are prepared to risk. These normative statements ripple on and presuppose future actions. We are making assumptions on the risks to future generations. They are extrapolated scientific pronouncements. There may need to be better differentiation between scientific conclusions and normative judgements. Scepticism is also a matter of interest and the result of a very deliberate misinformation campaign.

James Risbey discussed how efforts have shifted to what is appropriate in lessening harm. We are essentially clouding the glass on climate change by lessening the sense of gravity and urgency. By failing to differentiate between what we know and the inconsequential details about how it unfolds. The pause of global warming has little evidence and in any case would not be an unusual fluctuation. There is an inbuilt conservatism and a reluctance to talk about climate change as an alarming prospect. If something is described in benign terms it is not challenged. This is inbuilt in science so it is hard to convey the alarm and urgency. We must look at how we communicate. We need to ask scientists more questions to probe uncertainties and put it in context so that we learn what it does and doesn't mean.

Mel Fitzpatrick addressed the silencing of scientists. Part of the problem is the well-funded misinformation campaign. Scientists have been under attack and some of these attacks have become personal. The harassment takes many forms, such as

freedom of information requests that take up their time and stop them doing research. We must make sure that scientists are not silenced. Science is meant to be self-correcting. Scientific conservatism leads to not overstating things. There is a project about how climate scientists feel, and people talk about pre-traumatic stress disorder. It is a big mental health issue that faces scientists and will face the whole population. There is a struggle with making people aware of the reality of risk while at the same time giving them hope.

Discussion: Open discussion surrounded the language of opinion and belief in relation to knowledge and the discourse of science sceptics, and the understanding of impacts across disciplines.

Law, Constitutionalism, The State

Abstract: Law, Constitutionalism, The State *considered issues pertaining to the role of the state, at both a domestic and international level, as well as the impact of the Anthropocene in the development of international environmental law.* ***Tim Stephens*** *presented on the relationship between international environmental law and the Anthropocene. The relation between the two has taken different forms in a pre-Anthropocene era, and in the present day, and provides challenges and opportunities for just and effective outcomes moving into the future.* ***Louis Kotzé*** *focussed particularly on one of the ways to change international environmental law, through discussion of a 'global constitution', involving legal reform based on constitutional legal rules, but without a global state. Such reform could occur in the same manner as human rights law, with states as the subjects, and work to entrench legal environmental norms.* ***Ben Boer*** *discussed ecological civilization, why it is important in China, and what implications the concept of ecological civilisation has for addressing climate change, both in China and Australia.* ***Peter Burdon, Mary Heath & Sal Humphreys*** *spoke on the topic of surveillance and climate activism, with a focus on the recent developments in Australian law concerning surveillance and legality of environmental protest. They considered the discourse used by governments to justify the passing of legislation, such as protection of critical infrastructure and national interest. The relation of corporate security firms to government is a similar area of research which has implications for environmental protestors, and relates to the neoliberal context more generally.*

Joseph Wenta opened and chaired the session.

Tim Stephens (University of Sydney) spoke to the question of *What is the Point of International Environmental Law in the Anthropocene?* The idea of the 'Anthropocene' is generally accepted, but its various meanings remain relatively unexplored. Meanings include a technical, geological meaning; an Earth systems science meaning that includes disturbance to Earth's biophysical systems; and the socio-ecological meaning, which is that global environmental changes carry major risks for human civilisation.

The implications of this for international environmental law and policy are great. International environmental law emerged out of the process of 'ecological modernisation' in Europe and North America, which means it is a neoliberal enterprise, and has been somewhat complicit in producing the Anthropocene – by failing to curb the human pressures on the earth. It has tended to be discrete and localised, leading to the problem of 'regime fit'. Further, international environmental law is very difficult to change or transform, thus has a 'path dependency'.

However, the Anthropocene focuses attention on the need for change clearly and urgently than any previous idea, and it decisively ends the Enlightenment assumption of human/nature separability. What then is the goal of international environmental law in the Anthropocene? The transformation in Earth systems in

turn demands a transformation in global governance. Therefore, there is an opportunity for international environmental law to transform.

It is possible to identify three different time frames. Firstly, the pre-Anthropocene international environmental law in which nature is a threat, the earth is to be utilised, there is a limited understanding of ecosystems, and no clear goals. Secondly, today there is a postmodern pluralist system, in which instrumental and inherent values sit alongside each other, nature is treated as an object and there are narratives around wilderness, heritage and conservation, with some conception of Earth systems. Finally, under the future possibility of international environmental law in the Anthropocene, we must consider the idea of living in a post-nature world. There may be a return to instrumentalist values, to seeing nature as a threat, and to crisis models of law-making. There may also be notions of creating a safe and just safe, a circular economy, and stronger sustainable development narratives.

For just and effective international environmental law in the Anthropocene, we must reaffirm and operationalise core principles of international environmental law. We need the setting and codification of clear, science-based global goals, as well as engagement in a process of fair and just division of benefits and burdens. Finally, we must look at processes of democracy, including deliberative and ecologically reflexive processes.

Louis Kotzé (North-West University) argued that international environmental law has failed to effectively respond and come to grips with the Anthropocene. New ways must be found to respond to the threats that are presented by the Anthropocene era. Such reforms cannot be incremental, and targeted – they must be radical and all encompassing, changing foundations of international environmental law, and the actions of states. Such reform could lie in constitutional entrenchment, as the worldwide entrenchment of human rights has been effectively implemented.

Constitutionalism is generally understood domestically, but it must be situated in the international sphere. Several charter type instruments have been canvassed over the years, for instance the Earth Charter and the (disappointing) New Global Pact for the Environment.

The Anthropocene has become a lightning rod for discussion of humanity's normative systems, and how they will change. We must realise that law is central to managing climate events, and provides an opportunity for opening up of legal and regulatory discussions, as well as fresh critical engagement. Constitutional international environmental law is well placed to respond to Anthropocene specific challenges. A greenwashed Anthropocentric ethic based on growth without limits, for instance ecosystem services or narratives of sustainable development, are just a continuation of destructive neoliberal practices. A new international environmental law must move away from this. The Anthropocene could present a new legal opportunity, similar to the development of human rights law after World War 2.

A global constitutionalism could exist based on the respect of institutions, laws, and order, as in the domestic constitution, but without the global state. International law should depend on legal rules, rather than just state consent. Further, such a constitution should incorporate domestic constitutional doctrines such as separation of powers and human rights. States are therefore the subject of the constitution, and subject to such rules. Thinking about constitutional law beyond the state requires some epistemological flexibility and imagination.

An example is the Stockholm Declaration on the Environment, adopted by the UN General Assembly. The Declaration emphasised the protection of nature as an end in itself, for nature's benefit. Human development is only possible when the environment is protected.

The World Charter for Nature has slipped away from state concern, and exerted no significant norm shaping force. The Charter should be reanimated with the specific aim of supporting a World Constitution. While non-binding, the support received should not be relegated to merely symbolic. It does not have to be legally binding, but doesn't mean it is precluded from being so – such as in the formation of human rights law. Formal endorsement and acceptance has moved to real impact in the world of diplomacy. Despite being perceived as a 'talk shop', the UN General Assembly has the most influence on the nature and substance of international law. The World Charter for Nature is potentially valuable as an expression of concern, but also as a political and legal tool to ensure development of international environmental law in the Anthropocene.

Ben Boer (University of Sydney & Wuhan University) focussed on a regional level, but considered the topic of *Eco-Civilization & International Environmental Law* bearing in mind the international law which frames the whole debate. Ecological civilisation is an important term in China, and refers to the interaction between people and nature on a societal level. In 2013, China began to implement reforms that aimed to reconcile contradictions between economic development and the environment. It is described as a future oriented guiding principle, based on the perception of the extremely high price China has paid for its development. A single definition of eco-civilisation has not emerged, however, it can broadly considered a *process* and a way of thinking about the environment and natural resources.

Chinese President Xi Jinping has spoken about 'building' an ecological civilisation and giving priority to cultivating ecological culture. In this context, ecological civilisation refers to a world in which we govern ourselves as part of an interconnected Earth system and community, mindful of our obligations to the environment. It can be broadly equated with the concept of 'sustainable development', but can be seen as a deeper concept, incorporating more the Australian concept of *ecologically* sustainable development. It requires an ethical consideration of the human/nature relations.

This represents a very significant trend in China. The question is whether this will actually translate into action on the ground, or remain merely rhetoric. It is

especially important due to land contamination, water contamination, scarce water, and land 'grabbing' for development and food production. However, there is a huge uptake in wind power, and a reduction of heavy emission from power stations in China. Further, China is now looking at rolling out an Emissions Trading Scheme at a national level. Ecological civilization is being addressed in the Five Year Plans, which appears a solid basis for action to seriously take place.

For similar actions and considerations to better take place at the international level, we must further integrate the work programs of the MEAs, contemplate a general global MEA, and strengthen regional environmental law regimes such as ASEAN.

If the concept of ecological civilisation was accepted worldwide, it would require examining existing environmental law. China plans to set up a specific governmental body, and the Australian government is currently looking at establishing a Commonwealth Environmental Commission. However, we have to think about whether eco-civilisation is a smoke screen for business as usual. Further, whether the Australian government ought to be thinking in the same way? China's system is by no means perfect, but at least the top leaders are saying the right thing with regard to global environmental policy.

Peter Burdon, Mary Heath & Sal Humphreys (Adelaide & Flinders Universities) presented on *Surveillance, Security & Climate Activism,* and opened by noting that last week in Australia the government sought to increase its surveillance powers, while closing down the opportunity for whistle-blowers to act in the public interest. This legislation would stifle action that could be seen to be against 'Australia's interests'. This is indicative of a particular discourse.

Shifts in discourse indicate shifts in power relations. Particular discourses manifest certain world views as the truth, which can lead to action on their behalf. The government is currently espousing forms of neoliberal logic that posits climate change activism as unlawful. Therefore laws that include surveillance of metadata, and increasing powers of certain agencies, are justified on these grounds.

The discourse of safety and risk underpins these legislative measures, including the suppression of protest and dissent, restriction on freedom of assembly, restriction of protest, cuts to government funding, media laws, terrorism laws and protest laws. Environmentalists are being targeted as terrorists. Hyperbole about greatest ever threats to the nation lead to legislation which overreach.

Further, relationships between private security firms and government agencies are concerning. Corporate capital is seen as critical infrastructure, and activists who block such corporate capital are seen as damaging the nation, and its interest in critical infrastructure. A large amount of work overseas has been done on the topic of corporate security firms and government agencies, including critical infrastructure (often oil and drilling projects). Private security is deemed necessary certainly when violence may occur in a protest situation, but also when mere trespass occurs, or simply when too much public attention is garnered. This

creates a state/corporate symbiosis, wherein legitimate political processes are disrupted in the interests of business. For example, in 2009, the then Energy Minister suggested ASIO needed stronger measures to protect major energy providers' trade and investment. Journalists obtained documents revealing that the Minister stated environmental activists provide a greater threat to energy infrastructure than terrorists. This positions the government as having the unique responsibility to protect market access for energy infrastructure businesses.

Much of the Australian surveillance and protest legislation is justified as protecting jobs, workers, Australia's interests, or critical energy infrastructure. It appears to favour market interests and economics, characterising protestors as unimportant. This sits with a characterisation of neoliberalism which pervades every aspect of life. All elements of life are commodified – for instance 'jobs and growth' is consistently repeated, but social solidarity is not considered. From this point of view, we are running out of options for conceptualising protest under neoliberalism, as it only considered in terms of being a market impediment.

Panel discussion: Human Rights and Climate Change

Abstract: *This session discussed human rights and climate change in both a general context, as well as how human rights can be used as a tool in climate change issues.* ***Hugh Breakey*** *contributed by raising the fact that human rights should not only be seen through a legal lens, but also from a moral perspective that highlights the need for 'waves of duties' that can help promote core freedoms and interests.* ***Guy Goodwin-Gill*** *raised options for protecting the human rights of refugees and emphasised the need for international cooperation when dealing with migration issues. Countries do not always act in accordance with this international regime and one of the ways this may be addressed is though allowing States to be held criminally liable for their treatment of refugees, reflecting that everyone has the right to have a remedy for wrongs done, and to be treated as an equal.* ***Bridget Lewis*** *discussed the limitations of using human rights law to respond to climate change, in order to show the potential of a human rights approach. This involved a discussion of human rights being used at both an international and domestic setting in order to protect the rights of those affected by climate change.*

Robin Banks opened and chaired the session.

Hugh Breakey (Griffith University) addressed *Climate Justice: Understanding Human Rights as Moral Rights.* It was identified that we often think of human rights from a purely legal perspective. However, human rights should also be viewed in terms of moral rights. After all, human rights are often understood as an individual's moral entitlements. Human rights are a collection of 'core freedoms and interests' (CFIs). When looking at human rights from a moral perspective, CFI's should be promoted by any means necessary.

There are a number of modes that can be used to promote CFI's. These included the responsibility to mitigate GHGs, which is important in the context of climate change. The responsibility to mitigate means states should avoid creating indirect, un-intended, collectivized risks to an individual's CFIs. This should include states protecting against third parties imposing similar risks to the state's citizens. Anything can be done in these modes of promotion, including work through legislation and institutional delivery.

We need to be aware of 'standard threats' to the CFI in the environment. Climate change is a 'standard threat,' and yet it is likely that in the future society will only respond to individual 'spot fires', meaning that society will respond to different weather events such as droughts as they occur, rather than planning for the future strategically. Ethically, this allows citizens of rich states to enjoy protections, while leaving citizens of poor states vulnerable.

Instead, 'waves of duties' should be deployed. For example, if a flooding event occurs, there needs to be a new wave of duties, above the normal duties, to protect the farmers during that drought. This requires prior planning for 'waves of duties'

to be effective. These duties should be in a fair way, through collective, decision-making processes.
Morally speaking, human rights can be protected through many types of duties that can be implemented through law, policy and practice. This gives human rights many tools to tackle the issue of climate change and its impacts on human rights. However, pursuing tactical rather than strategic responses will lead to gaps in the delivery of human rights in society.

Guy Goodwin-Gill (University of New South Wales) addressed *People on the Move.* The human rights perspective is important for people moving between States. Even though these people are often not formally named, they still need protection. In the Universal Declaration of Human Rights, there are several relevant rights, which include the right of individuals to leave a country and return, the right to seek and enjoy other countries, and the right to a nationality. However, some of these rights are not protected. For example, the right to a nationality is still very much contested and this contention, caused partially by rights not being defined in certain terms, has in some cases encouraged certain governments to act as if individuals that want to move to a new country have no rights at all.

We have an international regime concerning refugees that ought to allow the international community to respond appropriately. This regime has human dignity and non-discrimination at its core. Refugees are entitled to international protection, and thus international cooperation is needed. International cooperation would in fact help States themselves, in terms of equality and equity. However, countries do not always act in accordance with this international regime. For example, Australia, has previously announced that everyone in offshore processing would be banned from ever finding a home in Australia. Australia's unilateralism in this instance has harmed its reputation, when Australia could have played an important role in the international community.

There is a need to look at the possibility of criminal liability for how States treat people moving to their country. In the context of human rights protection, criminal liability needs attention. It is considered by many to be deeply unethical, and maybe even criminal conduct, to subject others to arbitrary and unhealthy conditions whilst being detained. Especially when it is foreseeable that it will cause physical and mental harm. In recent times, some governments have paid for the wrongs they have done.

Adding criminal liability would increase the protection of people needing to move to a new country. Everyone has the right to have a remedy for wrongs done, and to be treated as an equal.

Bridget Lewis (Queensland University of Technology) addressed *Human Rights Approaches To Climate Change – Can They Live Up To Their Potential?* she addressed the question of whether human rights approaches to climate change have potential, and what the limitations of a human rights approach to climate change are. By looking at limitations, one can get a better understanding of the

potential of such an approach, while also having a better idea of what will succeed when it comes to climate change.

The fact that human rights systems at international law are state centred frameworks is a limitation, as these frameworks do not easily extend to non-state actors. This creates problems for people who want to enforce their rights in climate change through traditional law enforcement at the international law level. The nature of greenhouse gases creates issues with causation, because if a person wants to seek a remedy for a human rights violation, the plaintiff has to prove the duty-bearer has caused or at least contributed to climate harms.

There can also be trade-offs associated with the human rights approach to climate change. Governments owe obligations for wide range of human rights, and while some are threatened by climate change, other human rights depend on creating emissions in order for them to be protected in certain states. For example, development is needed for some economic rights, and that often involves emitting greenhouse gases. International human rights law is also not adequate to protect future generations, and there is no way for humans to bring actions for non-human beings, such as ecosystems.

Some more successful attempts at climate action have occurred outside human rights law. Domestic cases, using human rights principles at a domestic level (without relying on international law), can bring remedies to victims of climate change. Successful cases of this kind have used human rights language in some cases. The trade-off is that the flow-on effect of this will be more limited. However, we might see a powerful trend if governments are worried they are facing more domestic litigation. Additionally, a human rights approach, when applied to climate change, could involve mitigation and adaptation strategies. By using human rights principles to see if mitigation and adaptation responses are appropriate, this can help ensure access to appropriate remedies.

Discussion: During the discussion the following topics were raised: Australia being referred to the International Criminal Court for refugee policies; whether criminal prosecution would address core threats posed by climate change; whether both legal and moral perspectives of human rights should be used; the evolution of human rights; the structure of international courts that could be drawn from; the fact that duties related to human rights do not easily extend to corporations; and whether human rights can apply to certain groups of people, like in the UN Disability Convention.

Keynote Session

This keynote session continued discussion of the topic of barriers to climate justice and ways to address them.

David Schlosberg chaired the session and introduced the three speakers.

> ***Abstract: Lavanya Rajamani*** *addressed equity and differentiation in the 2015 Paris Agreement, exploring their evolution, maturity and prospects. Her presentation examined the provisions of the Paris Agreement – how they include, shape or omit the principles of equity and differentiation; and how differentiation is more dynamic and tailored to different issue areas. She noted that these issues remain contested terrain, but there are ways that equity and differentiation can be addressed in post-Paris negotiations. Countries could provide indicators and details of how they assess fairness and ambition in their nationally determined contributions (NDCs), but ultimately this will be nationally determined. Another way to bolster equity and differentiation is by supporting developing countries to implement their NDCs, as they are often conditional upon support. In the context of the global stocktake, group indicators could also be evaluated and linkages between action and support can be made.*

Lavanya Rajamani (Centre for Policy Research, New Delhi), a member of the core drafting advisory team for the Paris Agreement, addressed *Equity and Differentiation in the 2015 Paris Agreement: Evolution, Maturity, Prospects.* Equity and differentiation are related concepts, however they have distinct definitions and applications. Equity is a wider concept, including the principles of fairness, justice, equality, redistribution and others. Differentiation is a distinct and narrower concept in the negotiation process, referring to the principle of common but differentiated responsibilities and respective capabilities (CBDRRC).

This is contested terrain. There are core content and meanings of the terms equity and differentiation, however their application is disputed. Developed countries tend to use the term fairness while developing countries speak of equity. There are numerous arguments based on the core content of the terms, such as the right to development and equitable access to sustainable development. Historical framings include burden sharing, climate debt for past harms and carbon budgets. Their operational significance is unclear in the Kyoto Protocol, and the Paris Agreement, and domestic contexts.

In terms of CBDRRC, differentiation may be based on responsibilities or capabilities, or a combination of both. Further it may be based on historical or current or future actions, or an aggregation of all actions. Thus, there are multiple approaches to application of CBDRRC, where the nature and extent of differentiation differs. There is an application of CBDRRC in the Paris Agreement. It must be examined whether this specific application lends itself to obligations and what the legal status of CBDRRC is. Some involved have said it may be customary law but others disagree. Nevertheless, it is part of the conceptual architecture of the regime. This has consequences for how we fashion duties going forward.

The CBDRRC principle provides context for implementation of the Paris Agreement, in particular with regards to its long-term temperature goal. It is also included in the Preamble, Art 2.2, 4.3, 4.19, with the qualification 'in light of different national circumstances'. Equity is also anchored in the Paris Agreement, and provides context for implementation of the Agreement (Art 2.2) and informs the long-term goal for mitigation (Art 4.1). The principles of CBDRRC and equity are complemented by sustainable development and efforts to eradicate poverty (Art 2.1 and 4.1).

The application of differentiation in the Paris Agreement is distinct from how it was applied in the Kyoto Protocol. It is tailored to different issue areas. For example, under mitigation there is self-differentiation through Nationally Determined Contributions (NDC), governed by normative expectations such as progression and the highest possible ambition. This compromise is a departure from the FCCC and the Kyoto Protocol. We are in a post-Annex world, with a move away from the Annex 1, non-Annex 1 dichotomy. The different categories of parties – developed and developing – are contested definitions, especially as there are no references to annexes in the Paris Agreement. This means differentiation is more dynamic and nuanced, and is even more so due to the addition of 'in light of different national circumstances'.

Further, poverty eradication and sustainable development in the Paris Agreement are part of the context, rather than being an overriding priority such as in the Kyoto Protocol. There is a relationship between support and implementation, but the extent of developing country implementation is not directly linked to the extent of support afforded to them.

In post-Paris negotiations, there are numerous ways equity has been included. The fact that countries can self-identify whether they are developed or developing can provide countries autonomy and potentially enable greater equity. The Paris Agreement encourages parties to submit how their NDC is fair and ambitious. The equity claims of fairness and ambition are self-determined; however, empirical studies show that this does not lead to greater equity as countries rely on self-selected indicators such as a smaller share of emissions, income and vulnerability to avoid ambitious action. This is not a robust system to determine what is fair and ambitious.

Another way to increase fairness and ambition is supporting developing countries in implementation of their NDCs, as NDCs are often conditional upon support. The global stocktake is a way of measuring collective progress towards long term goals. Group indicators could also be evaluated and linkages between action and support can be made in order to assess equity. The outcomes of this will inform future NDCs.

In discussions, participants addressed differentiation in the 'Trumpocene'. Following the withdrawal of the United States last year, President Trump has indicated they are open to re-entry with renegotiation. For purposes of equity, the NDCS are often below what is desirable and therefore downward revision by major

emitting countries – such as if the US revises downwards its NDC – will further accentuate inequities and trigger a race to the bottom. The Paris Agreement is a step change from the FCCC and the Kyoto Protocol that decentralised equity debates to self-determination and introduced dynamism into differentiation. There is a deep dissatisfaction with this compromise. It remains central and divisive and any future negotiated compromise will also be tenuous.

Abstract: Sivan Kartha *presented a civil society report on fair shares and climate equity, which calculated equitable effort sharing efforts among nations, and the required efforts in terms of mitigation and climate support. This was calculated in light of metrics relating to responsibility (historical emissions), and capability (national income), evaluated in light of various progressivity indicators. These 'fair shares' were then evaluated against the pledges or 'national contributions' made by countries under the Paris Agreement. Results indicated that some developed countries' contributions are well below their equitable fair shares, regardless of which progressive model is used. Further, while some developing countries have met their fair shares, more support is required from developed countries to enable these poorer countries to take on still greater mitigation efforts.*

Sivan Kartha (Stockholm Environment Institute) began by noting that equity has had a number of interpretations within and outside the UNFCCC. In this presentation on *Fair Shares: A Civil Society Approach to Climate Equity*, the focus would be on equity among nations. While there are hooks within the Paris Agreement for equitable burden sharing, they are tenuous. So we cannot rely on parties alone to share the effort of addressing climate change equitably. It is therefore necessary to have a science-based evaluation of equitable sharing in order to determine what countries need to do and by when.

Responding to this challenge, the CSO Equity Review initiative was formed by a number of civil society organisations, and over 130 organisations signed onto the procedure, method, and results. This group of civil society organisations, some based on the North and some in the South, included groups with a wide range of viewpoints, including those focussed on environment, development, labour, gender, faith, migrants' rights and other concerns. Naturally, these groups did not come to a single unanimous consensus on all issues. Yet nor was there a proliferation of irreconcilable viewpoints – in fact, the group came to a broad, but well-defined and informative range of equitable effort sharing strategies.

The report is based on the underlying principle of common but differentiated responsibilities and respective capabilities, found in the UNFCCC and in the Rio Declaration (1992). These principles recognize the pressures that wealthier societies place on the global environment, and the technologies and financial resources those societies command. This concept has become important in popular discourse – reflecting both the historical share or contribution of a nation towards causing environmental change, plus its relative ability to address those changes – and has been widely cited (e.g. by Al Gore in the New York Times in 2007).

The purpose of the Fair Shares report, then, was to assess the national fair shares of the global effort of mitigation, and to use these fair shares as benchmarks against which to assess the Paris pledges (known as nationally determined contributions or NDCs). The collective scale of effort needed was calculated against the current trajectory of warming, and the required amount of emissions reductions needed in order to remain below 2 or 1.5 degrees C. Based on this, each country would be assigned a range of possible fair shares of the global effort, being an 'equity range.'

In calculating this equity range, one question addressed in the methodology was the historical start time for measuring emissions as a contribution to the problem of climate change. A key question here is: how far back in time does historical responsibility extend? To 1990? Or to 1979, the time at which the Group of 7 nations acknowledged the need to reduce carbon dioxide levels. Or does the responsibility extend back to 1950 or earlier reflecting historical emissions arising from the infrastructure upon which our current wealth was mostly established, and from when territorial boundaries were fairly consistent.

A second element of the methodology relates to capabilities. There is a wide disparity of income among countries (for instance US, India and China), which evidently affects the capacity of those countries to act. As with taxes, capacity can also be thought of in a progressive way. For example, a country with high income and development relative to population, could be subject to a more progressive evaluation of its capacity. Lower and higher levels of progressivity were considered – broadly similar to taxation systems of the US and Sweden respectively.

The shares of responsibility and capability were then calculated and set against population and income. The US for instance has 43% of responsibility, and capacity of 39%, which equates to 41% fair share of mitigation effort for 2015. This, in turn, was calculated against a more equitable and progressive consideration of historical emissions, and a model of medium progressiveness.

Each country's fair share of the global mitigation effort then was measured against the countries *actual* Paris pledge. It is evident that for some countries there is substantial difference between both the more and less progressive calculation of fair shares, and their pledged NDCs. While there is some difference between results depending on the calculation used, in some cases there exists a large difference between fair shares and pledges *regardless* of which model of historical responsibility is used. On one hand, it can be seen India and China have pledged above their fair shares, due to income and capacity, while the US historical emissions raise their fair share much higher than their pledge, whichever calculation used.

The issue of financial and technological support is crucial here. While most of the mitigation efforts in the world will have to happen as a practical matter in developing countries, most of the *obligation* falls to the developed countries.

In conclusion, it is possible to have a science and equity based deliberative dialogue about fair shares, and to use it to assess the Paris pledges. Such a process can productively accommodate a range of equity perspectives, focusing on key equity parameters. The clear lessons from this show that: insufficient effort has been pledged, and we are not on 1.5C pathway. Some countries are unambiguously leaders, while others lag. For wealthier countries, they must provide support and international cooperation; while poorer countries, even despite meeting their own fair share, must continue to do more, with this support.

Abstract: Jan McDonald *explored ideas related to fairness in adaptation law, recognizing the challenge of simultaneously operationalizing adaptation law, while also ensuring fairness in adaptation law. Adaptation actions can play a key role in addressing injustices relating to climate change; yet adaptation actions themselves involve making choices and making trade-offs with justice implications. If an over-arching object of adaptation law is fairness, then laws should tackle the issues of who benefits from adaptation, and who pays. The importance of mitigation was also raised, as if mitigation is not stressed in society, adaptation will not be able to cope with climate stresses, and there will be a larger adaptation gap, leading to greater losses and damage locally, nationally and inter-generationally.*

Jan McDonald (University of Tasmania) explored *Fairness in Climate Adaptation Law*, exploring ideas on how to operationalise adaptation law, while also ensuring fairness in adaptation law. As it is becoming increasingly known that mitigation is going to be a slow process, adaptation is increasingly seen as imperative to society's response to climate change. However, any adaptation action has beneficial and adverse consequences, and thus fairness in adaptation law should be considered.

Justice in adaptation is about giving a voice to those who have not had a chance to express their views. There are a number of injustices of climate impacts. One of these injustices is that people that are impacted often have no choice in where they live and thus do not consent to the exposure to climate impacts. Additionally, often people affected by climate impacts have no say in the way climate change effects will be exacerbated. Another injustice is that impacts are distributed unevenly in terms of spatial, temporal and geopolitical circumstances. There are also existing vulnerabilities in society, some of which stem from past systemic injustices, such as structural issues. There is also highly differential patterning of vulnerability and adaptive capacity. For example, the elderly has a different adaptive capacity to young adults in extreme heat. Children generally have poor adaptive capacity for both incremental and extreme events. It is not just human vulnerability that is relevant either; natural systems can have limited adaptive capacities, as well as the people within those systems. Therefore, for justice to be done in adaptation law, these injustices should not occur.

However, all adaptation actions have justice implications. Adaptation actions can influence alternatives that are available to a society, cause both beneficial and adverse consequences, and can confirm a particular set of decision-making

procedures that some in society may not agree with. Adaptation actions also often require trade-offs to be made. There is a continuum of these trade-offs, which can relate to short-term, long-term, and inter-generational problems. Trade-offs are highly complex and varied, even in a single society in the present day. An example of a trade-off is choosing to adapt for coastal impacts, rather than impacts from bushfires. Another example is a national level of government making decisions about adaptation, which could then impact on lower levels of government that ultimately normally implement the adaptation strategies. A failure to act can also have justice implications, and those with the greatest need for adaptation have limited capacity for autonomous adaptation.

Due to the justice implications of inaction, there is a need for collective action and associated burden sharing. Collective action is needed for decisions about adaptation priorities, funding and compensation for residual impacts. A role for law is needed for processes in how we do adaptation action. Adaptation laws should be both substantively about adaptation, as well as being adaptive in themselves. Society needs to actually address adaptation as a priority but must also laws that are more adaptive and responsive to change. Some laws will be general adaptation laws, and some will address particular impacts and risks. Laws can create frameworks for incentives in adaptation, but at the same time should not reward maladaptive behaviour. Adaptation laws should have principles of fairness as well. This can be seen in the Paris Agreement, where there is an adaptation goal that seeks to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change in Article 7(1). These types of goals need to trickle down to national and subnational levels.

An over-arching object of adaptation law is fairness, so laws should tackle the issues of who benefits from adaptation, and who pays. There should be processes for fairly determining objects, priorities and trade-offs. Adaptation laws should also focus on avoiding impacts rather than on compensation. Additionally, as climate impacts are often uncertain, adaptation laws and processes need to be sensitive to these uncertainties and allow for change.

The longer we leave mitigation, the greater the mitigation burden will be. Society is reaching a point now where we are facing the prospect of a significant adaptation gap. The less mitigation occurs, the less adaptation is going to work. We need to think seriously about national, local and intergenerational loss and damage caused by climate impacts.

Adaptation

Abstract: *This session explored a number of themes related to adaptation and barriers to equity and justice.* ***David Schlosberg*** *used two examples to advocate that the capabilities approach allows for more specificity about the experiences, impacts and potential policy responses to climate change.* ***Kate Dooley*** *compared studies quantifying different equity approaches, noting the lack of consistency amongst their findings. The comparison raises questions around the role of science when it comes to determining fairness and informing these highly political processes.* ***Peter Christoff*** *used Australia as a case study considering how national equity issues may play out and the possible compounding effects, noting that there is a poor longer term prognosis for climate/equity in Australia.* ***Jason Byrne*** *explained how local governments and non-governmental organizations can enable climate-just adaptation with a focus on social innovation and risk framing to enhance responses to climate change. Overall, the session raised a number of thought provoking issues and opportunities raised both for adaptation and equity.*

Philippa McCormack opened and chaired the session.

David Schlosberg (University of Sydney) spoke on his paper *Just Adaptation: Public Engagement and Capabilities in Adaptation Planning*, which advocates that climate justice has to include just adaptation based on a capabilities approach. This approach was legitimatised by both public engagement and public experiences, as demonstrated by two Sydney examples.

The first example, compared City of Sydney adaptation strategies to public experiences. In this example the public process, much more than the policy, illustrated the link between adaptation and everyday life.

In the second example, resident experiences of shock climate events were examined to look at what is necessary to be resilient, or necessary in the design of a just adaptation policy. A number of findings were noted about the Penrith heat waves. One finding was that expenses are the number one thing that stops people being resilient. A number of findings were also noted in the Blue Mountains bushfires, and a fear of disconnection from the environment (and individuals past connection to the environment) was noted.

Overall, these examples demonstrated that the capabilities approach allows for more specificity around the experience, impact and potential policy responses to climate change.

Kate Dooley (University of Melbourne) spoke on the topic *Do Equity Debates Function as an Enabler to Climate Action or a Barrier?* The equity principles contained in the Paris Agreement were outlined, noting that in essence equity debates are ongoing and there is no consensus between countries on the meaning of equity.

Since 2015, there have been a range of studies quantifying different equity approaches and assessing relative fairness of NDCs. However, there is a lack of harmonisation across different studies which makes comparison difficult. Four different studies that look at equity approaches were outlined: (1) CSO equity review using the Climate Equity Reference Framework; 2) Pan et al 2015 using the Equitable Access to Sustainable Development model; 3) Robiou du Pont et al 2016 using five equity categories sourced from the UNFCCC; and 4) the Climate Action Tracker using equity assessment literature. Comparison of the four approaches reveals a number of differences between their findings. For example, the CSO equity review approach was that the only one to find that China's target is compatible with its fair share of a global 2 degree Celsius mitigation pathway.

Overall, this comparison raises questions on the role of science when it comes to determining fairness and informing these highly political processes, quoting: "when it comes to reflecting on the relative fairness of difference countries pledges and actions, the role of "science" (that is, scholarly analysis and quantification) is to help clarify the ethical underpinnings and consequences of the choices facing us. It is emphatically not to *make* those deeply normative choices"

Peter Christoff (University of Melbourne) explored *How Will Climate Change Affect the Welfare State? A Study of Burden Sharing in Australia*. Equity has been a core principle, and central problem, in international negotiations. But a lot less attention has been paid to the national equity issues with very little written on the welfare state. In using Australia as a case study, this paper considered how these issues may play out and the possible compounding effects.

There are emerging pressures on the welfare state in both developed and developing states. Past responses to emerging pressures on the welfare state have been to delay and increase debt. We now have to add climate change on top of our past fiscal pressures

While there are a number of challenges in determining whether climate finance is being delivered, it appears that there is a significant climate financing gap for mitigation. The gap for climate finance is unknown for adaptation and loss and damage. In addition to this there are ongoing climate finance and fiscal demands/costs for mitigation, adaptation and loss and damage .

Turning to Australia there is unequal economic capacity within the nation state. However, the biggest problem within Australia is household debt, which introduces an enormous fragility into the economy.

In summary, there is no sign of Australian fiscal crisis at present. However, our public revenue base is insufficient to meet future climate pressures and targets. This means that future preparedness to deal with climate change is weak – there is no integrated assessment of climate/welfare impacts and needs, **t**here is no formula for equitable national burden sharing, and there is insufficient institutions for national climate burden sharing. This indicates a poor longer term prognosis for climate/equity in Australia.

Jason Byrne (University of Tasmania) explored *Factors shaping enablement of climate-just adaptation by local governments and NGOS in Australia*. In introducing the topic a number of areas were explained, including; the exposure to harm from climate change, the extreme impacts of climate change, individual vulnerabilities to climate change, and factors causing environmental injustice.

Spatial planning's response is a scientific-based approach to predicting and forecasting low carbon based economies and adaptive responses. Examples of spatial planning on the Gold Coast were explained, noting that some of these actions can also be maladaptive.

Social innovation can be a response to climate change. The research project investigated the framing of climate change, and the impact of framing on local governments across a number of local councils in four different Australian states. This research project found a number of commonalities. One key finding of the research project was the utility of risk framing. These claims were illustrated by contrasting regular barriers to action with what local government officers were saying demonstrating local governments can enable climate change through social innovation. Key components of 'enablement' are an ability to cope/manage, understanding, self-efficacy, continuity over time and transferability.

Discussion: Participants raised a number of questions including questions on research methods, transferral of costs through a range of mechanisms and safe failure.

Radical Critiques

Abstract: *This session explored radical theories that critique the current social structures that prevent action on climate change, and offered new ways of conceptualising the issue.* ***Rob White*** *discussed conceptualising polluting corporations as climate criminals, and argued that a green criminological perspective allows for radical structural change moving forward.* ***Eve Croeser*** *explored the implications of geoengineering for democracy, and how the normalisation of Solar Radiation Management reflects a failure of our current form of liberal democracy. Surely considering an alternative economic governance system would be a less radical alternative than 'hacking the planet.'* ***Afshin Akhtar-Khavari*** *spoke about ecological restoration, and new ways of imagining the social contract as a natural contract, moving away from assumptions about objectivity and towards an ecological world-view.* ***Bob Pease*** *noted that the study of vulnerable populations has often neglected a gendered perspective. Looking at the impact of privilege, as well as the masculinities which exist within the environmental movement, are integral for creating a critical ethic of care and a more environmentally conscious masculinity.* ***Fred Gale*** *discussed the role of values in a divided polity, and considered 'tetravaluation', a linking of four value systems, as important in achieving better political, and sustainable, outcomes. At the end of the discussion, participants explored questions about individual awareness-raising, as opposed to larger structural reform. Structural problems are fundamental to address, but it was noted that structures themselves are reproduced by individual subjectivities.*

Louis Kotzé opened and chaired the session.

Rob White (University of Tasmania) spoke on the topic of *Climate Change Criminals and Climate Justice*, suggesting that the key question is how to frame the topic of climate change. The actions of corporations are criminal in polluting, as climate change involves foreknowledge, and resultant harm. Therefore, conceptualising corporations as climate criminals is the missing link. This requires talking about political economy, and socio-economic dynamics. Climate change criminology views criminality in terms of criminal and/or harmful behaviour that contributes to the problem of global warming, and which prevents adequate responses to climate change related consequences.

The first pillar is the crime of ecocide, which conceptualises climate change as a crime. A second pillar is global connectedness and eco-justice; which requires looking at the issue from an ecological philosophical perspective. Third, climate change criminology considers the victims and perpetrators. Apportioning responsibility looks at contributions to the problem, foreknowledge, and precautions taken. It is possible to determine exactly *who does what*; that is, pinpoint the states and corporations, and their level of emissions. The fourth pillar deals with power and interests. The strategies that nation-states use to deal with environmental concerns are contingent upon the class interests associated with political power. Transnational corporations (TNCS) are the agents of the global

capitalist system, and their power and finance is central. We must look at this in terms of sectional class interests, and according to this hierarchy of interests, the subsequent externalisation of costs and harms. The fifth pillar is social action and agitation, and democratisation of mitigation and adaptation strategies that are premised upon both human and ecological interests.

We need democratic control over the essentials of life. This requires radical egalitarianism involving eco-justice for humans, ecosystems and non-human specifics. This involves acting in the greater social and ecological interest and divesting the present 'owners' of their private property to reassume communal control.

Climate change litigation has a role, as does fighting on the streets. The solution is found in analysis of causes rather than in the science that exposes it. Capitalism is incredibly resilient, the costs and penalties of climate change will undoubtable be shunted to those not part of the power structure. This 'crime' basically revolves around who is deciding whose fate. Democracy does not always work, and is not currently working – we can't get hung up on the small wins, but look at the big picture. We need politicisation, mobilisation, and struggle against the true climate criminals.

Eve Croeser (University of Tasmania) presented *Democracy is a prerequisite for climate action and climate justice, but context matters,* focussing specifically on geoengineering. The relevance of this issue relates to attempts to normalise geoengineering. A small clique of US scientists are particularly pushing this, and are very active in attempting to normalise geoengineering into climate change narratives.

However, there are great technical dangers to using Solar Radiation Management (SRM). The Earth is dynamic and non-linear, and human knowledge of it is imperfect both in practice and in principle. There is the potential to create new crises or make things worse. Even if it does work, there could certainly be unanticipated and perhaps even irreversible effects, or different effects in different regions. Further, there are threats to liberal democracy which could arise. For example, the generation of conflicts within existing institutions; necessitation of autocratic government; the potential for plural or unstable motivations for implementation; and its role in furthering the neoliberal project.

Within the climate movement, there are two 'wings'. The climate action (CAN), and climate justice (CJN). CJN activists include the most disadvantages and powerless groups from the global South, and some of their Global South allies in the North. The CJN looks at false solutions and real solution. Any solution which removes nature from the commons and commodifies it, as well as techno-fixes such as SRM, as considered false solutions. For instance, see Powys Whyte (2012). It appears we are sleepwalking towards a technical nightmare, and plan B (geoengineering) is at the forefront, rather than the mitigation efforts of Plan A. This is a patent failure of liberal democracy. However, there are other forms of democracy, such as

participatory and grassroots, or direct democracy. These are the kinds of democratic practices which we must fall back on.

In talking about SRM, methods are usually assessed against 'business as usual'. But isn't is less radical to talk about changing society, than to talk about altering the natural world? SRM governance consultations should then include the options of moratorium or outright band of these technologies.

Afshin Akhtar-Khavari (Queensland University of Technology) spoke about *Imagining Justice Through Restoration: International Law In An Era of Ecological Restoration*. Significant areas of the world have changed substantially. Anthropogenic threats have completely destroyed the ability of forests to regenerate in some cases. Restoration and recovery questions are not just about law, but require consideration of socio-economic drivers. International and environmental law are more concerned with prevention than restoration and there are few restrictions on states to restore in most legal systems.

An Anthropocentric approach can be useful in thinking about environmental law and the Anthropocene can be a tool for thinking and reflecting. However, these approaches reflect a modernist approach, based on the latent assumption that objectivity is possible. They rely on the social rather than the natural way of thinking about the world. Environmental law is thus actually complicit with the neoliberalist modernist way of thinking about the world. So, for example, intergenerational justice is central to the *social* contract, but not the ecological contract. Instead, we need to think more about the ecological world in a deeper way, increasing perception or recognition of sentient plant life – not to increase ecosystem services, but engaging in an emotional way. We may rationalise about how to remediate a landscape, but we need to think about how to remediate landscapes in a different way.

The idea of recovery and restoration is not necessarily radical, but a well-established science. Depending on the habitat under consideration and the nature of the degradation, states may support restoration for a number of reasons, including conservation, achieving goals of environmental human rights, and adapting to climate change.

Notions of environmental and social justice are related to the idea of the social contract. We are currently building our ideas of these forms of justice on this social contract, but we must move from the social contract to a natural contract. We must consider the world story, recognise that our experience of reality is shaped by this. We cannot take objectivity for granted but we must move away from localised things to world objects, to help us revaluate and consider globalised knowledge. The Earth actually acts and responds to us. We need to think of inquiry and knowledge, not mastery and domination. The metaphor of tectonic plates, as societies move and interact with each other, tells us those societies also interact with the Earth itself. Recovery is then about embedding ourselves in the work of nature; a symbiotic relationship requiring that we give not just because we expect a reciprocal reward. We must simply engage.

Bob Pease (University of Tasmania) spoke to the topic of *Men's Privilege, Hegemonic Masculinity & Global Warming: Towards a Profeminist Environmentalist Response,* which is grounded in social relations, as the impact of climate change is differently felt in terms of geographical location, and social locations of gender, class, race, sexuality and disability. Research on vulnerable populations has failed to address the gendered power, or patriarchal discourses that frame climate change as scientific problem that is ostensibly unrelated to gender. There has been little research into gendered groups as the main perpetrators of climate change.

Firstly, men in developed countries tend to have a larger carbon footprint than women. Women generally *assume* they know less about climate change, but have been found to *actually* know more, and are also more likely to be involved in climate change activism. Reasons for this have historically come from an essentialist point of view, positing women as more caring, nurturing, and expressive. An alternative to this essentialist view is locating differences in men's' and women's' social positioning in relation to their privilege. There is the 'conservative white male effect', which shows that men are usually in positions of power, and therefore the highest emitters as well as most commonly climate deniers.

There are multiple masculinities that arise from difference cultures, historical periods and social divisions. These different positions are in relation to power, as well as institutionalised and embedded in organisational structures. They are embodied by men, enacted by men, and produced through men's actions. In relation to climate change, the 'technical problem' of carbon emissions is often framed in a masculine way. Environmental politics is similarly masculinised, and white middle class men tend to dominate organisations responsible for addressing climate change. This gendered lens is intersected with race, ethnicity, class and other social divisions, as well as the Global North and South. We need to shift the focus away from vulnerability to climate change, to the role of privileged groups in reproducing climate change. Those who are privileged tend to notice the least; and those who contribute the most to climate change tend to do the least about it.

Ecomodernism promises to reconcile ecological and industrial modern discourse (Hultman 2013). It has constructed another form of masculinity, in a way which is resistant to other kinds of more radical critiques. Hegemonic masculinity is alive and well within the environmental movement, and one of the main barriers for men becoming more environmentally conscious. We must bring a critical ethic of care into masculinity.

Fred Gale (University of Tasmania), in his explanation of *The Political Economy of Climate Justice: Tetranormalisation all the Way Down,* suggested that a major barrier to climate justice is our modern system of liberal democracy. If climate justice is the goal, then all theoretical and practical roads in political economy lead to fragmentation into four different value hierarchies - tetravaluation.

The circular cycle of election issues; elected governments; enacted law; and adjudicating by the courts is evidently dysfunctional in terms of its policy outcomes. A beginning point is that the polity is always fragmented into four different value hierarches. This policy system does not emerge in a vacuum, but arises from fundamental personal values, for instance according to the Schwartz Values Circumplex 2012. Ones' value hierarchy can be mapped onto this model, across the categories of Openness to Change, Self-Enhancement; Conservation, and Self-Transcendence.

A majority of Australians agree that it is important to look after the environment. However, conformity, security and tradition also all rate highly. Thus Australian values are strongly correlated with the traditional left-right scale (economic equality versus inequality), and correlated with the libertarian conservatism scale (freedom versus obligation). There is currently a sterility of party politics, great oscillation in Australian politics. The polarised value scales neglect to consider sustainability issues.

The solution is to recognise different values, and that they are not going to be reconciled easily. Therefore, people must be brought together into a values dialogue, tentatively called tetravaluation. This can happen, for instance, through corporatist governments. An example, albeit not perfectly practised, can be seen in Scandinavian countries.

Panel Discussion: Climate Litigation

Abstract: *This session was a panel discussion on climate litigation. One common theme discussed was novel avenues for pursuing climate litigation, and there was a general focus on the accountability of governments and corporate actors for climate harms.* ***Timothy Baxter*** *discussed the future of negligence in climate litigation, exploring the possibility of changing the elements of negligence for negligence concerning climate impacts. This involved a discussion of the Interpretive Theory of Negligence Law.* ***Danny Noonan*** *looked at different ways of framing climate litigation. This involved a discussion about the current approaches to climate litigation, the limitations of these approaches and the advantages of new approaches. Obstacles to new approaches were raised.* ***Hari Prasetiyo*** *discussed the In Dubio Pro Natura principle and climate litigation from an Indonesian perspective, stating that in the future a principle that legal doubt should be resolved to protect nature may be used in Indonesian courts.* ***Margaretha Wewerinke-Singh's*** *remarks touched on climate litigation and human rights in the South Pacific, and how there needs to be a better understanding of how climate litigation could promote climate justice in the South Pacific. A specific climate treaty for the South Pacific region that is being developed was also discussed, and how a focus of this treaty will be access to justice.*

Jacqueline Peel opened and chaired the session, and read Margaretha Wewerinke-Singh's remarks.

Timothy Baxter (University of Melbourne) addressed *Is there a future for negligence in Australian climate change litigation?* There is possibly a small and untested future of negligence in Australian climate change litigation, however for this to occur, it would involve re-imaging the tort of negligence in principle, by changing the elements of negligence in the context of climate change.

Negligence cases have almost always lead to damages being used as the primary remedy. In law, another remedy for negligence are injunctions. This had not been applied to negligence anywhere in the common law world until recently. The first case that used an injunction for a remedy for negligence was *Plaintiff s99/2016 v Minister for Immigration and Border Protection (2016) 243 FCR 17,* which concerned harm to a plaintiff that could not be compensated. A prohibitory injunction is more appropriate in many instances to remedy negligence. In the context of climate change, it can be incredibly difficult or even impossible to calculate the amount of money that would remedy the effects of climate change.

In the context of litigation on climate change, the remedy should be looked at first, rather than last as is often the case in negligence cases. By looking at the remedies first, this fundamentally alters the elements of negligence. For normal negligence, causation is important, however it can also be difficult to prove what exactly has caused the effects of climate change, as some often argue that the effects of climate change could be caused by normal climate variation. Instead of proving causation of past damage, negligence in climate litigation could require imminent damage to be proven. There would not need to be an actual breach, but instead an anticipated

breach. Then, the plaintiff could get an injunction. This could be successful, as some would argue that greenhouse gases being released into the atmosphere cannot be brought back, and they can cause an imminent threat. In climate litigation, negligence could also require a duty of care, of which the scope of the duty will change, and elements could include relationship of proximity, foreseeability of risk, foreseeability of effect, and capacity to mitigate.

For climate litigation, the Interpretive Theory of Negligence Law could be used – i.e. "A legal claim against a defendant where that individual has failed to meet the standard of a limited and specific duty to protect a class of plaintiff from recognisable harms consequent to the realisation of a foreseeable hazard." This would be a useful theory to use, as in normal negligence law damage and breach often overlap, and this theory describes negligence in a holistic way. The political questions doctrine is also relevant to climate litigation, as climate change is often considered a political issue. However, the judiciary actually choose what is political or not political autopoietically, and thus this may not be a barrier to climate litigation extending to the tort of negligence.

Danny Noonan (Our Children's Trust) addressed *Discourses of Climate Justice in Climate Litigation: Time for a New Approach.* Our Children's Trust coordinates law suits against the United States and other countries, often using avenues other than traditional litigation avenues. Currently, the existing approach to climate change litigation tends to involve challenging fossil fuel developments under existing environmental and planning review through either merits review, or judicial review. However, there are problems with this approach. When this traditional approach of statute-based litigation is used, the climate impacts often become a peripheral concern, with other concerns in the giving case being given more weight in court, such as focusing on animals, or whether a Minister followed the correct way to approve a development. Additionally, process-based challenges imply that there is a 'correct' way to approve emissions-intensive development. This creates dissonance with campaign groups and invites attacks on legitimacy.

There are many advantages to new approaches to climate litigation. New approaches articulate a coherent discourse and get to systemic issues. They can articulate a clear narrative of climate justice, and remedies being sought are generally commensurate to the actual mitigation adaptation challenges climate change faces.

However, there are a number of obstacles to a paradigm shift. Firstly, not all new approaches articulate the same discourse of climate justice, and they are not all harmonious with each other. For example, some take stance on climate science and human rights, some have distributive notion of justice. There are also legal obstacles, such as overcoming differences between different legal systems. Another obstacle to a paradigm shift is the conservative Australian public-interest environmental law sector, and the fact that they often have resource constraints, limited philanthropic funding and adverse costs.

Margaretha Wewerinke-Singh (University of the South Pacific) addressed *Climate Justice through the Courts?* There is potential for human rights based litigation in the South Pacific to be used as a tool for climate justice. In the South Pacific there have been many negative effects caused by climate change, such as an increased loss of lives across the region, people being forced to leave their traditional lands in some cases. Human rights such as the right to life, food, education, and development are impacted upon my climate change.

The South Pacific has seen a growing interest in climate litigation in general. Some South Pacific island communities have vowed to take cases concerning human rights and climate change in order to hold large companies accountable. However, there is only a limited understanding of the effectiveness of human rights climate change litigation as a tool to promote climate justice in the South Pacific. There is a call for knowledge sharing amongst the climate litigation community.

A specific climate treaty for the region is also being developed. A focus of this treaty will be access to justice. Interdisciplinary scholarship is also needed for community-based climate justice.

Hari Prasetiyo (Universitas Indonesia) addressed *In Dubio Pro Natura as a Principle in Climate Litigation: Future and Challenges.* There have been many frameworks made that attempt to prevent the effects of climate change. However, more is needed to protect the environment. For example, in Indonesia, there are bushfires that are not lit intentionally by enterprises, and it can be difficult to determine who is responsible for the bushfires. If the In Dubio Pro Natura Principle is applied, the enterprise would still be responsible for the fire.

The *In Dubio Pro Natur*a principle is the principle that, when there is any uncertainty about the law, that uncertainty should be resolved in favour of the result that will give greater protection or conservation of nature. This principle can be distinguished from the precautionary principle, as the *In Dubio Pro Natura* principle focuses on remedies rather than precautions, and concerns legal uncertainties, rather than scientific uncertainties.

This principle was first applied in 1995 in Costa Rica, where it was found that if there is any doubt regarding the legal interpretation of an act, nature should be favoured in the resolution. From the case law it can be said that under this principle a judge cannot invent something that is not explicitly or implicitly included in the law, however when there is a question of interpretation of the actual law, the interpretation that best safeguards the environment should be chosen.

In Indonesia, this principle has been acknowledged in environmental law. In the Supreme Court Decree Nr. 36/2013 it is stated that judges should use environmental principles when examining environmental cases, however it assumes that the *In Dubio Pro Natura* principle is the same as the precautionary principle. Therefore, though it is mentioned, it appears there is not a clear understanding of the nature of the *In Dubio Pro Natura* principle.

The prospects of the *In Dubio Pro Natura* principle being used in Indonesian courts in the future is promising. Civil societies are bringing more cases to courts, and more awareness is being raised of these types of cases in society. Judges are being spotlighted by the media for all cases in court, and this will push them to 'green' their spirit and take a side to the environment. Perhaps ten years ago judges could have been easily bribed to side with the enterprises, but now due to spotlighting, they will not be able to take bribes, at least as easily. Implementation of the *In Dubio Natura* principle cannot rely on the green spirit of the judges alone but must be accompanied with a deep knowledge of it of the principle.

Discussion: Many questions were asked of the panel. Some of the topics that were raised included: the political environment surrounding recent Indonesian bushfires; public-interest climate change lawyers' limitations to take on novel climate litigation cases due to funding, and the possibility of adverse effects of taking to litigation; what awareness the public need to have, and the timing of this needed, in order to increase the success of climate litigation; the logistics required to run a climate litigation case with many plaintiffs and complex evidence; the evolution of common law and civil legal systems; whether courts are an appropriate place for climate litigation in the Pacific Islands; whether evidence such as unearthing oil companies' documents are helpful in boosting the success of climate litigation; whether the prospects of climate litigation have been enhanced due to Australia and the United States having 'vacated the field' of addressing climate change; and sustainability issues in the context of climate change.

Theme 3: Strategies

Strategies explored different strategies on how to respond to climate change on different levels. These ranged from personal levels such as strategies for climate change 'refugees' to the global divestment movement and strategies surrounding this movement.

Keynote Session

Robyn Eckersley opened and chaired the session.

> ***Abstract: Ben Richardson*** *evaluated the rationales of the global divestment movement, and assessed the criticism levelled at each rationale in turn. Firstly, the legal responsibility of investors to address climate change risks is uncertain, often resting on fiduciary law. Secondly, avoidance of complicity by investors in the negative consequences of their investments can provide a rationale to remove an investment, however questions are often raised about thresholds for knowledge that equate to complicity. The leverage-based responsibility of investors to use their strategic influence links morality to ones' capacity to effect change. This however is countered by arguments around the greater effectiveness of continuous engagement as a means to change corporate behaviour. Finally, the business-case for divestment is often considered the most powerful and persuasive rationale for the divestment movement, yet fossil fuel investments cannot yet be considered stranded assets. Divestment as a strategy for combatting climate change is paradoxical, as it would be served by better government regulation – yet such regulation would negate the need for divestment, by exerting control over the free market.*

Ben Richardson (University of Tasmania) asked the question *Divesting From Fossil Fuels: A Useful Strategy for Climate Justice?* The presentation focussed on institutional divestment and investment, and whether it is truly influential in the market, and for what rationales. Divestment in this sense is the withdrawal of money from businesses and institutions which have negative environmental impacts.

The first rationale for divestment rests on the legal responsibility of investors to address climate change risks. There are very few laws in the world which expressly talk about divestment, but they are generally focussed on public sector funds. The legal context for the private sector, in common law jurisdictions, relates to fiduciary law. In the case of pension fund trustees, fiduciary law says that the trustee must act in the best interests of the beneficiary. Usually, best interests are considered in an economic sense. However, occasionally 'best interests' could be seen in ethical terms. Another option would arise if the 'constitution' of the trustee fund allows explicitly for trustees to divest, or if beneficiaries consent to and wish

for that fund to divest. This, however, relies on beneficiaries to agree – and in some cases there are no beneficiaries. Finally, such a case must be legally viable, and in the Harvard University Fund case, the students who brought that to the court were not beneficiaries of the fund, and thus lacked standing.

The social license of the investors to avoid complicity in fossil fuel industries is another rationale for divestment. The issue here is that usually the institution itself is not actively undertaking the destructive activities, for instance digging coal. The legal doctrine in this case is that of complicity, which accords guilt to those assisting that actor which *actually* does dig the coal. A problem with this is determining the threshold for assuming complicity. For example, all commuters are carbon emitters, yet are they complicit in those carbon emissions? Further, there is confusion about the degree of knowledge that constitutes one's complicity. Is the customer of a bank which invests in coal mines complicit if they know of those investments? Banks and universities are certainly publicly visible and likely to be harmed by a damaged social licence, but private businesses are not, and can often avoid this guilt through complicity.

The leverage-based responsibility of investors to use their strategic influence links morality to their capacity to effect change. The idea that action should follow influence, however, is the Achille's heel in this approach. The idea is potentially too vague and lacks substance, and further, investors often have no power. In corporate social investment literature, it is shown that refraining from buying shares in a polluting company does not necessarily suppress their share price, as the shares are picked up by others regardless. Additionally, 75% of oil production is through state owned oil companies, which evidently will not be affected by this tactic. While new research from Canada looked at actual impacts of divestment, and found that it did have a negative impact on the companies that were divested from, in the short term at least. There is also the argument that social investors can best engage using shareholder rights, rather than leaving the company altogether. Engagement is often preferred over complete divestment.

The business case for divestment is the most powerful and persuasive rationale for the divestment movement. The upside of this is investment in new and green technologies, the down side is the risk. The 'stranded assets' concern relates to investments in older fossil fuels, as they diminish in value, and assets in those companies are no longer relevant. The decline of Kodak is an example. However, there currently remains demand for fossil fuels, and as facilities close, governments often grandfather and grant compensation.

In conclusion, there is a paradox in the divestment movement, as it mobilises where governments have failed to act. But to make divestment work, governments must act – and if governments did act, then divestment wouldn't work, because regulation would control the free market. Lobbying government, and targeting regulators and politicians can potentially be a better and more effective strategy than pure divestment.

Abstract: ***Guy Goodwin-Gill*** *addressed Climate Refugees: Pathways for Justice and began by explaining why there is good reason to avoid the term 'climate refugees.' 'Climate refugees' do not fit within existing international law definitional or procedural arrangements. As a consequence the UN High Commission for Refugees' mandate, although evolving, has not been extended by the UN General Assembly to those displaced by disaster. After the definitional issue was explained, two substantive risks were raised, firstly the numbers of 'climate refugees' and secondly the seductive appeal of the temporary. The value of a longer-term approach to those displaced was noted. An encompassing, rather than individualistic, approach to climate change displacement may be required to [meet these challenges]. The presentation questioned above all whether there is a need for protection for those displaced by climate change, as historically it is the very need for protection that underpins the international legal regime.*

Guy Goodwin-Gill (University of New South Wales) addressed *Climate Refugees: Pathways for Justice.* There are two issues with the title of this presentation. Firstly, there is a good legal reason to avoid the term 'climate refugees', as existing people displaced by the impacts of climate change do not fit within current definitional or procedural arrangements in treaties relating to refugees. While this does not mean international refugee law is never applicable, states do not generally support the label of 'refugee' being extended to other categories of displaced people, for fear that this may mean they have to extend their support.

The mandate of the UN High Commission on Refugees (UNHCR) mandate is confined to refugees. The UNHCR's mandate has evolved as the UN General Assembly (UNGA) has encouraged it to take additional categories under its mantel. The most recent strategic plan of the UNHCR noted that it will *contribute* to the area of climate refugees. The UNHCR has also provided assistance for several occasions of displacement due to disasters such as the boxing day Tsunami. However, the executive committee of the UNHCR has declined to endorse a broader range of climate related activities. The UNHCR's mandate is derived from the UNGA which doesn't currently include those displaced by disaster. States have historically taken the view that it is not clear what protection should be granted to the displaced and what responsibilities states have.

Therefore, the term 'climate refugee' isn't legally accurate. But it does not bring climate refugees under the 51 convention so we have to look elsewhere. There is an emerging body of practice. When people seek to cross borders they run up against a state's sovereignty. The general challenge here is to guarantee enough spaces for humanitarian necessity. Determining humanitarian necessity will be difficult as this challenge will coincide with changes in working demographics, changes in supply and demand of labour worldwide. As global migration can only meet a small need, not large changes, more emphasis needs not to be on removing - we need not to expect the unexpected but to develop resilience at the community level to enable us to respond to the knock of the door.

There are two real issues: (1) numbers and (2) the seductive appeal of the temporary. As we do not know exactly how many will move planning and

budgeting are difficult. But that very uncertainty is one of the reasons we need to have community support in place. What we need to assume that displacement will happen and experience tells us of the value of the longer term emphasis on self-reliance and adaptation in displacement not on the short term models. This longer term model requires infrastructural support.

At one level it might be a reasonable inference that internal displacement is more of an issue that cross country displacement. But that is no reason to ignore this kind of displacement. The challenge always here is the unpredictability; floods, hurricanes, volcanos, or the impact of slow onset disasters. The effects of slow onset disaster may be less dramatic but may ultimately have a worse outcome.

Turning to look at the pathways to justice, in the exercise of its refugee mandate the UNHCR has examined that in practice some options tend to be are available to the individuals but ultimately climate change may demand something more encompassing. A example, is a recent relocation exercise in Fiji which sought to replicate traditional living arrangements and habits, maintain their heritage and identity.

Important language on human mobility can be found in the Sendi framework, and work of the Secretary General. There has just been published two zero drafts [by the United Nations General Assembly], one of the global compact of refugees and one on migration. They often optimism – the refugees draft emphasises preparedness. The migration draft is much more emphasis in setting out one of its aim to minimising the push factors for migration. They will also commit to opening up regularly pathways for refugees sand migration. Will this all be done? Or these just faint tracks in the wood. There is no evidence that these non-binding documents will emerge unscathed. These are complex issues.

Above all there will be a need of protection? As historically it is the very need of protection that underpins the international legal regime.

Abstract: Jack Pezzey *discussed the crucial difference between cost benefit analysis (CBA) and cost effectiveness analysis (CEA) of climate change. CEA is favourable because it sets physical targets and yields carbon prices without guessing the value of climate damage. By contrast, using the DICE CBA model, it is projected that global warming will reach a maximum temperature of four degrees when optimally controlled. These are contested results and there are differing inputs of the value of climate. DICE optimal projections of warming are also incompatible with the UN target of two degrees. These projections, however, are dependent on complex and unpredictable climate and human variables and therefore it is almost impossible to model climate damage. The prescription is to do less CBA and more CEA modelling, while recognizing the latter still faces deep uncertainties.*

Jack Pezzey (Australian National University) focussed on climate economics and discussed *The case for not valuing climate change monetarily and setting physical targets instead.* He sought to give understanding of the approaches of economics to

climate change, but not to advise those ways are wise. Valuing climate change monetarily and using that valuation to estimate the optimal future which minimises costs of damage and the costs of emissions abatement is cost-benefit analysis (CBA). This is contrasted with setting physical targets to find a future that minimises the costs of emissions abatement in a cost-effectiveness analysis (CEA). It is suggested that economists should work less on CBA integrated assessment models and more on CEAs. They will always disagree because they use made up data.

The model examined is world's oldest and most influential, the DICE model by Nordhaus, which has been widely applied with multiple revisions. The structure of DICE is global and deterministic which means there is no uncertainty and only intergenerational justice. It is important to keep in mind that the only injustice that exists in DICE is intergenerational as it does not measure current global differences. Nevertheless, DICE was the first model to add a climate dimension, showing it harms net output. By modelling the global mean temperature anomalies, the optimal path projects a future of four degrees of warming when optimally controlled. This, however, has been investigated and rebutted. It is interesting to note that in this model global well-being is also seen to rise. Such optimal projections are incompatible with the UN target of two degrees.

A lot of economists, however, take issue with the four-degree projection. To end up with more credible results, climate must be inputted in a way that does not just affect consumption but is an added part of well-being. This is because, on its own, climate creates radical results. Economists criticise the discount factor and change the damage function. They find lower optimal warming projections with a few key variations in DICE's assumptions. It must be assessed whether playing with the DICE model provides useful results. In the model, economists mostly use guesswork and may have no relevant empirical research. Meanwhile there are econometricians studying economic impacts of weather, using sub-global data who disagree. They believe we are in a renaissance of quantitative empirical research.

Yearly swings in global temperature are only half a degree of warming and so extrapolating to four degrees of local variations is guesswork. There is evidence of why damage functions are so hard to come by. It is because Earth's biogeophysical system is unique, its timescale is centennial, the likely state is unprecedented, and change is slow. There are some stable laws of atmospheric physics that give some confidence in results. However, the impact of modern humanity, with unprecedented population, energy use, etc, is immensely more complex. Thus, climate social science does not have any agreed, stable laws for global social behaviour and therefore it is almost impossible to model climate damage.

The prescription is to do less CBA and more CEA modelling. This is because CEAs yield carbon prices without guessing the value of climate damage. CEAs, however, still face deep uncertainties such as the speed of growth and ethical challenges such as the distribution of costs between rich and poor, present and future.

Discussion: Many questions were asked in this session. Some of the topics raised included: whether cost effectiveness relies on equilibrium models; the idea that the politics of divestment is very much rapt up around symbolism; and the loaded term of climate change refugee.

Governance/Law

Abstract: *The session focused on the role of legal and normative mechanisms of global governance to address climate change.* ***Anita Foerster*** *addressed the obligations of corporations to recognise the risks posed by climate change, the consequences for failing to do so, and developments in how climate risks are considered in the internal and external actions of corporations.* ***Michelle Lim*** *discussed governing through goals and introduced criteria for effective goal-setting. This was applied to the examples of the Paris Agreement, the Sustainable Development Goals and the Sendai Framework. Goals have motivational and operative value and are contrasted with rules, but both are needed for effective governance.* ***Shirley Scott*** *discussed the role of the UNSC in climate change. Climate change can be framed as a security issue, invoking the mandate of the UNSC. Although this may have undesirable consequences of militarisation and nationalism, and could fail to focus on human security, the UNSC may play a constructive role if we see some of the worst scenarios occurring.* ***Daniel Klein*** *addressed how the Paris Agreement's goals and frameworks contribute to achieving its objectives. Parties are currently in the phase of operationalisation of the Paris Agreement. This process can provide a platform where targets are measured and we move forward with progressive goals and actions and solutions that can help us achieve these objectives. The Paris Agreement and international law and governance can set the frame, but action needs to come together from all actors.*

Hannah Murphy-Gregory opened and chaired the session.

Anita Foerster (University of Melbourne) addressed *Corporate Climate Justice?*, distinguishing between two distinct approaches to corporate climate justice that involve private, non-state actors. The first avenue is conventional climate justice litigation that involves holding corporations to account for their actions. The second looks at corporations as agents for achieving a safe climate future. It looks to the body of company and securities law as a source of tools for driving clean energy business practices. These are not mutually exclusive strategies; there are important links between them.

The traditional stream sees corporations as a barrier to climate justice. This is apparent in the lawsuits targeting corporations with torts and human rights claims. This approach allocates responsibility and seeks compensation from corporations for their contribution to climate change impacts. An example is the 2009 claim in Alaska suing Exxon Mobile claiming damages for the cost of relocating community's due to climate change.

The second approach, which is the focus here, frames the financial risk and opportunity, and examines whether this can change corporate behaviour. There has been a gradual shift in corporate culture, accelerated by the Paris Agreement and investment coalitions that push the idea that climate change should be thought about as a risk to corporations. This can be a physical risk to assets such as changes in rainfall or temperature, or a transition risk associated to a clean energy

economy such as the cost of complying to new laws, for example a carbon tax which may reduce the value of a corporation.

Under the company and securities law, climate change may be recognised for its financial risks. There are requirements for disclosure of material financial risks to business, engagement with corporate management through shareholder resolutions and enforcement of director's duties for failure to fulfil their obligations.

Climate risk disclosure has been a particularly big focus in recent years. There has been a senate enquiring and work by mainstream financial institutions such as the Taskforce on Climate Related Disclosures. In Australia we don't have specific laws yet. Climate risk is captured by the general requirements for disclosure whereby corporations are mandated to disclose their financial statements. Information is required to be provided so that people can make an assessment of the company and its outlook, and this includes risks posed to it by climate change if it impacts on the ability to create or maintain value.

The consensus is moving towards acceptance that there are real risks posed by climate change. In Australia there was a study done on reporting practices of high emitters which found that Australian companies have highly variable reporting on climate risk, but showed they have minimal substantive engagement. In the USA there was a high profile investigation of ExxonMobil for their failure to disclose risks posed by climate change. This resulted in a shareholder class action lawsuit in late 2016 which centred around the misleading of investors and the public due to their failure to disclose, resulting in higher prices for their shares than they otherwise would have been.

The other area attracting discussion is around director's duties to a company and whether they need to consider and manage climate risks. The risks relevant to director's duties of care and due diligence occur to the extent that they intersect with company interests. Company directors can and in some cases, should be considering the impact of climate change on business. Failure to consider climate business risks could result in liability for breach of the director's duties.

The next steps, in the context of a radically shifting landscape, are to talk to businesses about how they perceive the risks and obligations. Ultimately the question needs to be asked whether these legal tools are capable of dealing with these issues.

Michelle Lim (University of Adelaide) discussed the question, *Can "Governing Through Goals" Advance Climate Justice or International Environmental Governance?,* examining whether governing through goals can be an effective strategy for better global governance and in what instances it is most effective. This dialogue has emerged because of a realisation of the limitations of international law, where consensus is required for binding instruments, and that it offers a slow way to deal with the threats of our times. It has been suggested that governing through goals is a good approach for sustainable development goals and

global policy more broadly. This, however, will be challenged by examining the examples of the Paris Agreement, the Sustainable Development Goals (SDGs) and the Sendai DRR Framework.

Goal setting is aspirational, contrasted with rule making which involves behavioural prescriptions. Related to goals is a fixed time frame, instead of laws which have a long-term purpose. What is important to this discussion is to recognise the differences in approaches of goal making, which is not legal and uses different ways of motivating human behaviour, contrasted with rule making. The criteria for effective goal-setting are well-defined priorities, which are confined in number that can galvanise attention and mobilise resources.

The first example is the Paris Agreement, which is a voluntary instrument that occurs within a legal framework. When countries try to move out of the agreement there are mechanisms to stop them from doing so. It is suggested that the legal framework that supports the Paris Agreement may be more effective than the other examples presented. The binding procedural requirements and normative expectations of progression may mean it is more effective. In the context of the Paris Agreement, the effective goal-setting criteria are satisfied as it includes well-defined priorities, that are limited in scope and mobilises resources.

The SDGs were meant to eradicate poverty, assure prosperity is shared and tackle the key drivers of climate change. Examined alongside the effective goal-setting criteria, these goals are not sufficiently limited and the agreement is non-binding. There are targets but they are easy to sidestep. The indicators are simply for the purpose of data collection and do not shape human behaviour in the sense that clear targets might. There are little linkages between the goals and it lacks an overarching goal. Perhaps it does galvanise attention to mobilise resources but this is because of the linkage to the UNFCCC.

The danger of negotiated goals is that there may be too many goals to be useful in establishing priorities. They are framed in vague terms which are difficult to operationalise. They are individual goals presented as a package that are incompatible and contradictory and do not interact.

The Sendai framework has a clear goal, that is, to prevent disaster risk and enhance resilience. The targets may appear broad but they are an improvement on the SDGs as they provide guidance to the overall aims.

There have been some successes of governing through goals, however, it is important to be aware of the pitfalls. There is difficulty in establishing incentives and pressures to stick with goals at an international level. Nevertheless, goals are good depending on their context and design. Goals and rules are not an either/or. There should be coherence across the frameworks and coordination across the goals of the Paris Agreement and the SDGs. Further, it should be noted that climate change is not the *only* challenge of our age. Biodiversity is a great challenge also, so we must think of the range of frameworks for a healthy planet to shift us to a healthy trajectory.

Shirley Scott (University of New South Wales) discussed *The UN and Climate Change*, noting that many might see any involvement of the United Nations Security Council (UNSC) as a barrier to climate justice. This is because of their top down approach, and thus their unlikelihood to deliver climate justice. If disaster does occur, however, there may be a governance tipping point in which we look for new solutions. Therefore, forward thinking is required, despite it being a live issue currently. Climate change can be framed as an economic issue or a human rights issue, but it is also a security issue. Framing it as such attracts resources to the issue and may mobilise armed forces that are able to react to large-scale disasters. The concern is that the issue may become militarised, incite nationalism and ultimately fail to protect human security. The idea that framing it as a security issue is new is incorrect, is has simply not been the dominant frame thus far.

It seems unavoidable that the UNSC will be addressing climate change related issues. It's also contentious to frame is as a security issue because of the evidentiary rules surrounding their mandate for protecting international peace and security. Addressing conflicts may include issues of human security more generally and therefore the UNSC may act. Although there are direct threats to humans, in the traditional forms of conflict, research is throwing up answers on both sides. At some point we need to establish the terms of discussion. For example, whether a climate change related event was made worse by climate change, or it if has to be the sole cause. It is unclear whether the UNSC would use recommendatory or compulsory powers. It must be considered how the UNSC might relate to other bodies and if they would use existing tools or new ones. Relating to the themes of the conference there is a gap between legitimacy and effectiveness. If states ignore the council, they have little power.

Another topic discussed was whether the Council can create a court or tribunal for climate crimes. It must be considered what the crime may be and how it is defined in the Statute of the Court. Perhaps the UNSC may resolve the issue and the body of law applied, such as domestic law. It may have a role in climate induced migration or clarifying aspects of the Paris Agreement, for example the requirement that NDCs constitute a progression. However, there may be barriers as the P5 may not want to hold themselves to account. They may choose to use legislative powers to commit states to particular action, as happened to prevent terrorist accessing WMDs. The UNSC may play a constructive role if we see some of the worst scenarios occurring.

Daniel Klein (Legal Officer, UN Climate Change Secretariat, UNFCCC) addressed *Implementation of the Paris Agreement – Progressing towards its long-term goals,* noting how the Paris Agreement and its goals contribute to achieving its objectives. The objectives are to achieve stabilisation of GHG concentrations in the atmosphere, in a three-fold purpose where parties aim to hold global temperature from rising, increase the ability to adapt, and make finance flows consistent with these objectives. The mechanisms in the Paris Agreement to achieve these objectives are the nationally determined contributions or NDCs. These contributions are guided by the principles of the highest possible ambition and

progression. All of this is following the principle of CBDRRC in light of differing national circumstances. Developed countries should provide financial support towards developing country parties and their NDCs.

We can see in the overall structure of the agreement that the purpose guides the general obligation for mitigation and adaptation. The Agreement also includes a transparency system. Parties must account for the NDCs and report on their progress and this information is independently reviewed. A related mechanism focuses on facilitation of implementation and compliance. The global stocktake is an assessment of collective progress towards the goals. This should happen in a comprehensive manner, in the light of equity and the best available science. The ambition cycle is aimed at holding warming below two degrees.

We are in the phase of operationalisation of the Paris Agreement and the work programme is expected to be completed and adopted shortly. In this context, Parties are currently participating in a Talanoa Dialogue, which addresses themes such as: Where are we now? Where do we want to be? And how will we get there? By the end of 2018 we hope to see the operationalisation of the Paris Agreement and progress towards the fulfilment of pre-2020 targets and promises.

This perhaps would not be possible without the involvement of non-party stakeholders. We can expect new commitments and inputs into the overall conversation of how to increase ambition. We need to see the completion of the Kyoto Protocol and a full implementation of the Paris Agreement, starting with the enhanced NDCs. This could create an upward spiral, which is much needed to complete the goals of the Paris Agreement. We also need to ensure the SDGs remain in reach, for example, by halving emissions every decade. There are many scenarios of how to get to a climate neutral world in the second half of the 21st century. In the end, the Paris Agreement and international law and governance can set the frame, but action needs to come together from all actors, including non-party stakeholders. What the UNFCCC process can provide is a platform where targets are measured and we move forward with progressive goals and actions and solutions that can help us achieve these goals.

Discussions surrounded the nature of goals and open norms, company disclosure and director liability, the definition of soft-law and the possibilities of changes to the structure of the UNSC and its powers. Further, the potential for environmental NGOs and corporate partnerships as corporations try to mitigate their risks, the need for inter-disciplinary workings on norms, and moving climate change into the upper end of the dichotomy of high and low politics, which has agenda implications.

Panel Discussion: The Justice of Climate Intervention

Abstract: *This session focused on climate intervention methods, whether they are inevitable, and whether they should be used from an ethical standpoint.* ***Aylin Tofighi*** *discussed the science of climate intervention methods. This involved exploring the advantages and disadvantages of Carbon Dioxide Removal (CDR) methods and Solar Radiation Management (SRM) methods, concluding that CDR methods would be preferable for long-term solutions.* ***Jeff McGee****, presenting* ***Kerryn Brent's*** *paper, explored the idea that climate intervention may be inevitable. Mainstream science suggests that climate intervention methods will likely be necessary to keep to the Paris Agreement's aim of a temperature rise of 2 degrees above pre-industrial levels. The use of climate intervention will bring substantive and procedural justice issues that may be difficult to solve.* ***Catriona McKinnon*** *discussed the governance of both SRM research and deployment, suggesting that governance should include provisions to shut down research in situations where companies use 'lock-ins' (to guarantee deployment of the project and reduce their financial risk) before carrying out geoengineering research. The governance of SRM was also highlighted as an opportunity to make new institutions that consider what we owe to future people in climate intervention matters.* ***Michel Bourban*** *and* ***Lisa Broussois*** *discussed whether climate engineering agents are actually altruistic and benevolent as some philosophers argue. It was argued that it is unlikely that there is a balance of good consequences over bad effects when it comes to climate engineering, or that climate engineering agents have benevolent intentions. Instead, it was argued an altruistic person would support mitigation of climate change impacts, rather than climate intervention.*

Jeff McGee opened and chaired the session, and presented Kerryn Brent's paper.

Aylin Tofighi (IMAS, University of Tasmania) addressed *Climate Intervention: What, why and whom?* Climate intervention is not a new idea, as weather modification dates back to the 1830's. The paper focused on two categories of geoengineering, Carbon dioxide removal (CDR), is the more promising as CDR can remove greenhouse gases while minimising the negative effects of this. Solar Radiation Management (SRM) is the other category of geoengineering. Space based mirrors are an example of SRM at a global scale, while more regional SRM techniques include cloud brightening. SRM could lead to lower temperatures. However, they do nothing to reduce carbon dioxide in the atmosphere, and could lead to further damage of the ozone layer.

SRM techniques are cheap compared to CDR, however CDR methods should he regarded as preferable to SRM methods unless immediate action is necessary. Climate intervention methods are not a substitute for climate change mitigation.

Kerryn Brent's (University of Tasmania) paper *Is Climate Intervention Inevitable? What Role for Justice?* was presented by Jeff McGee (University of Tasmania). 10-15

years ago, climate intervention was often seen as science fiction. However, climate intervention is already starting to take hold. For example, there are already discussions taking place about localised solar radiation management for the Great Barrier Reef to prevent further coral bleaching. A project has also been approved in northern Queensland for the upwelling of water to go onto the reef during periods of hot weather.

The Paris Agreement in 2015 sets a target band for allowing a temperature rise of 1.5-2 degrees above pre-industrial levels. When looking at the climate science, that science indicates that it might not be possible to do this just by mitigation. The Paris Agreement aims to keep global temperatures below 2 degrees, however commitments under the Paris Agreement look more likely to lead to at least 2.6 degrees of warming. Climate modelling scenarios on climate mitigation for the Paris Agreement rely on negative emissions. Negative emissions will likely be needed by 2030 to limit global warming to 2 degrees Celsius. Therefore, it is likely that climate intervention will be needed to help reach this goal. It is not argued that geoengineering is inevitable, but that mainstream climate science indicates that it is likely to be necessary alongside strong mitigation.

SRM has not played a role in modelling, and proposals to develop this are less mainstream than proposals to develop CDR. However, placing all hope in CDR is a risky gamble, especially when climate intervention methods are expected to be rolled out in 10 years or so, as research for CDR is still in the laboratories, with not many field tests having been conducted. It is uncertain whether CDR proposals can be developed in time to take action that will help limit warming below 2 degrees and even if they can, whether they can deliver the scale of intervention needed. Some scientists are proposing developing SRM techniques as well.

When discussing the effectiveness of SRM geoengineering, people often use natural analogies to suggest it might work, such as the fact that volcano eruptions have reduced temperatures in the past. However, these eruptions only work for a limited amount of time, and some eruptions have been known to cause significant impacts on the Asian monsoon, rainfall, and glacial melt in Asia. There may be significant harms caused due to recourse to SRM. SRM has substantive justice issues and procedural issues, such as questions about who should make decision about solar radiation, as those who undertake it may not get the worst effects or may be the beneficiaries while others bear the costs.

CRD engineering will play an increasingly prominent role in climate change policy. This means many new considerations for climate justice. There will be a necessity for compensation, questions of distributions of risks and benefits that come from any law or policy, and also questions about the processes by which decisions are made regarding substantive issues. The worst result would be to build assumptions about climate intervention capabilities into the Paris Agreement, and then not having the technology to achieve what is set out. Work and science need to proceed, and substantive and procedural concerns must be addressed.

Catriona McKinnon (University of Reading) addressed *Sleepwalking Into Lock-in? Avoiding Wrongs to Future People in the Governance of Solar Radiation Management Research.* There are no international laws to help govern SRM in ways that speaks properly to the various ethical concerns that this new technology raises. The issue of governance is important. There are compelling arguments that both the research of SRM, as well as the deployment of SRM should be governed. Currently, a 'geoclique' made up of a small number of people that are often researchers of SRM have been doing research on SRM governance. However, it could be argued that experts should prepare reports on governance. It is important to get this organised soon, as SRM technologies are already developing fast. There is a field experiment in SRM organised for later in 2018, SCoPEx, that is highly significant. Though the physical impacts are will not occur, it is an important step in the development of SRM.

Governance of SRM research must take seriously our moral obligations to future people. This means that governance of research must contain provisional mechanisms to shackle or shut down research programmes when it is clear they cannot serve as precautions against climate impacts. This is the case when the research itself creates a need for precautionary action because it locks us in to deployment, and so creates dangers of massive loss in future. For SRM research to be justified as a precaution against climate change impacts, it must be governed in ways that appropriately attends to these dangers. However, this does not necessarily require a moratorium on research.

Simulating SRM research as a precaution against future climate impacts would succeed under two conditions. Firstly, that future climate impacts satisfy the conditions for justified precautionary action. Secondly, that governance to stimulate SRM research does not itself create circumstances in which precautionary action is justified. SRM research could cause massive losses if the deployment of SRM causes a risk of a termination shock, and if research programmes lock in deployment.

The governance of SRM research therefore should incorporate more strenuous flexibility mechanisms, which can shackle or shutdown research programmes if the signs and signals of lock in are apparent. There should also be powerful oversight provisions to allow us to continuously assess research projects. There is a need to ensure oversight provisions include more than just SRM community members, and there would also need to be explicit space in such a provision of oversight for the protection for future people. This is an opportunity to make new institutions that consider what we owe to future people.

Michel Bourban (Kiel University) and **Lisa Broussois** (Independent researcher Lausanne), addressed *Effective Altruism, Climate Change and Geo Engineering*. There was a focus on ethical issues on research and deployment of climate intervention methods. There have been claims in the past, by those who support effective altruism, that climate engineering could be an ethical solution to climate change, and that altruistic individuals who want to contribute efficiently to the fight against climate change should give financial support to climate engineering

projects. However, one must first look at the philosophical meaning of altruism and benevolence, their implications, and the justifications for using these notions in the ethics of climate engineering before coming to conclusions.

Though some argue that climate engineering research is ethical, and that it is not inherently dangerous because if the research is not certain to work it could simply not be deployed, many research projects risk 'lock in' provisions, which would lock our society into a technological scenario. Once research is started, the funding of climate engineering programmes makes it more likely that these technologies will be deployed, and less likely for alternative programs to launch. However, there are alternative options that need financing that could help humanity fight climate change without potentially disastrous consequences.

It can also be argued that that altruistic individuals who want to contribute efficiently to the fight against climate change should not give financial support to climate engineering projects, drawing on Hutchesonian philosophy of moral sense and the notion of benevolence. This requires people to take into account the kind of person they want to be, the kind of society they want to live in and the kind of relation they want to have with the rest of nature and future generations. It can be argued that geoengineering is harmful, but people choose to support it as it allows us to continue to live as we do. Climate intervention does not make us question our behaviour, or our current lifestyle. This thinking does not take into consideration other potential harms. It can be argued that this attitude is the opposite of benevolence and that a benevolent science engineer does not exist.

If it is decided that climate engineering should go ahead, it is arguable that this should be done by benevolent and altruistic people. However, if this was the case, it would be unlikely altruistic and benevolent people would choose to undertake climate engineering anyway. An altruistic person would not finance climate engineering, but would instead mitigate climate change, for example by using renewable energy technologies. Some philosophers such as Singer and Preston assume that there is sufficient evidence for a balance of good consequences of climate engineering over bad effects, and that climate engineering agents have benevolent intentions. However, it is very unlikely that either of these conditions will be met, let alone both simultaneously.

Discussion: Many questions were asked in this session. Topics that were raised included: specific reasons why 'lock ins' should not happen; whether climate interventions are actually plausible, and, if not, why people would want to develop governance mechanisms for technology that will not plausibly solve the issues it is intended to; whether 'lock ins' should be reversible; and whether it is worth it for large companies to conduct research with such high costs, with no lock in provision.

Renewables, IP and Technology

Abstract: *This session explored both innovative energy options and the legal framework underlying these options.* ***Matt Rimmer*** *explained the interrelationship between climate change and intellectual property law, noting that that questions of intellectual property in climate change have often been addressed in fields beyond climate law.* ***Margaret Young*** *discussed the international trade regime in climate trade exploring the underlying question on whether the international trade regime has the tools to address the inevitable questions of justice.* ***Meng Zhang*** *presented a model for carbon capture and storage regulation in China.* ***Franziska Mey*** *explained that community renewable energy can play a key role to ensure a just energy transition.*

Tom Baxter opened and chaired the session.

Matt Rimmer (Queensland University of Technology) addressed *The Paris Agreement: Intellectual Property, Technology Transfer and Climate Change.* Climate change effects a several areas of intellectual property (IP) law, including patent law, trademark law, consumer law and copyright law. Historically, intellectual property has a been a taboo subject in international climate law and as a result questions about intellectual property have often been absorbed into other fields.

Intellectual property was very contentious in the Copenhagen negotiations. In Paris there was a sense of déjà vu arising from some strong views, particularly between India (which sees IPRs as a barrier to technology transfer) and the United States (which supports IPRs and seeks to avoid discussion of them at the UNFCCC), around the need for the strong protection of IP rights. There were a range of potential options for inclusion of IP in the Paris Agreement. These included: financial support for IP; the green climate fund playing a greater institutional role to lower the cost of IP rights; an international mechanism on IP rights; IP sharing; IP as a public good; IP promotion and enforcement; no text on IP; and inclusion in technology transfer. There was little discussion on indigenous knowledge as an option for IP in the Paris Agreement.

There are a number of other mechanisms that can pick up IP rights as they relate to climate change including; the World Trade Organisation and its TRIPS Council, and multilateral agreements such as the TPP.

Margaret Young (University of Melbourne) spoke on the topic *Energy Transitions, Fossil Fuel Subsidies and International Law.* The international trade regime, unlike the Paris Agreement, seeks to cover subsidisation of energy by energy-exporting states. The underlying question is whether the international trade regime provides us with comfort that key issues of justice are addressed by the regime.

The data behind the renewed attention on fossil fuels subsidies allows us to see that each year there are approximately $US444 billions of production subsidies that are provided by the G20 alone. Countries have been aware of this for some time, and there was an attempt to include fossil fuel subsidy reform agreed in the Paris Agreement, particularly from countries most vulnerable to climate change.

The V20 Group of Vulnerable Nations has called for the removal of fossil fuel subsidies, focusing initially on production subsidies but now also focusing on consumption subsidies.

The New Zealand Ministry of Foreign Affairs and Trade released a statement in December 2017 calling for the development of 'disciplines on inefficient fossil fuel subsidies that encourage wasteful consumption', including through the WTO. For trade lawyers, subsidies considered in need of discipline are characterised as inefficient and distorting of world trade, or 'unfair because they 'disrupt the level playing field.' The WTO disciplines the use by WTO member countries of subsidies that fit the definition of being a specific financial contribution that confers a benefit to a particular industry. WTO law also classifies action that can be taken in response to a subsidy by other countries according to the category of subsidy – whether it is prohibited, actionable or non-actionable. In practice, the current regime provides a certain freedom of states to uses subsides as they see fit unless those subsides harm another state.

Australia's $1 billion loan form the North Australian Infrastructure Facility for the Adani mine could potentially be a prohibited fossil fuel subsidy, especially if it could be shown if the loan is contingent on export performance. Here, Indonesia may be able to action a case against Australia as it will likely displace exports of Indonesia to India.

Meng Zhang (University of Ghent) explored *Carbon Capture and Storage in China: Future Options and Strategies*. If we see climate mitigation as a battle we need to win, we must consider all the options our pocket; (1) energy efficiency, (2) renewable energy and (3) carbon capture and storage (CCS).

CCS has three important technical components: (1) separation of the CO2 from its two main sources (the energy sector and energy incentive industries), (2) transportation and (3) storage. China is an excellent case study for CCS as it the second largest economy, the largest CO2 emitting country and has high reliance (87%) on fossil fuels.

The Chinese government is facing high international pressure to put more effort into climate mitigation. As a country it needs to decide whether to choose fossil fuels or climate change mitigation. This dilemma can be minimised if we consider the development of CCS. In China there are two legs of CCS projects – CCS technology research and development of CCS pilot demonstration projects. Last year, the first large scale CCS project began construction in China.

Currently there is no specific CCS law or regulation in China, which is dangerous. Fortunately, the current Chinese environmental legalisation can offer some protection from risks.

In the future, public awareness is one of the biggest barriers to CCS. Climate change is not recognised as the biggest problem for Chinese people – air population is. An ideal model for CCS regulation in China would include

environmental protection law, national climate mitigation legislation, environmental administrative structures and specialised CCS regulation.

Franziska Mey (Community Power Agency, and the Institute for Sustainable Futures) explored *'Community Renewable Energy Solutions for a Just Energy Transition in Australia'*. The broad definition of community renewable energy (CRE) means a diverse range of activities fit into this field. Community renewable energy projects can offer both distributional justice and procedural justice. Firstly, CRE can generally facilitate distributional justice by meeting intergenerational goals, allowing greater diversity of actors to enter the energy market and adding value to local and regional areas. From a procedural perspective it allows a democratic governance structure, decentralised energy ownership and increased the acceptance of renewable energy projects.

A number of examples were provided to demonstrate these advantages. Repower Shaolhaven is a member based not-for-profit association that installed a 99kW solar PV system on the roof of the Shoalhaven Bowling Club, with 50 community members co-investing in the project. Research showed that most of the people involved with Repower Shoalhaven are motivated by climate action and this project enabled them to channel these motivations into unlocking investment opportunities for ordinary people. However the high price of the shares meant that only older people, and typically men, participated in the project, demonstrating some social equity limitations.

Darebin Solar Savers, and a current solar gardens pilot, were presented as two examples of models where low income households are provided with solar panels or shares in a community solar farm to offset their energy bills. These projects can increase access to renewable energy options for low income households and combine environmental with social goals, but can be quite complex and are dependent on government funding.

In conclusion, community renewable energy can play a key role to ensure just energy transition. Different projects address different aspects of climate justice. Limitations can be addressed through specifically tailoring approaches to combine social and environmental goals. The projects that enable greater social access and just outcomes need greater government support.

Discussion: Participants raised a number of questions covering advantages and disadvantages of CCS over other energy options, the likelihood of an international dispute mechanism being used in relation to fossil fuels subsidies, and options for non-state actor participation within intellectual property and international trade law.

Local/Cities/Resilience

Abstract: *This session covered topics including the role of cities, local government, and planning schemes in moving towards resilient adaptation to*

the effects of climate change. ***Anel Du Plessis*** *considered a critical theory of urbanisation, which seeks to take an integrated approach to explaining deeply embedded social inequalities which exist within cities. Multiple factors come together to create crises within cities, compounded by both climate events, and the wider capitalist system. Therefore, we must focus on the causality of vulnerability in urban areas, rather than just responses.* ***Edith Peters*** *presented research on the soft limits to climate change adaptation, which is exemplified by the risk-based mental model. An alternative, transformative mental model can instead provide a broader, community based, capacity building approach that can lead to climate justice.* ***Philippa England*** *outlined a number of key case studies that illustrate the gap between ideal practice, and reality, in resilience-based planning strategies.* ***Steve Williams*** *analysed the Alberta Energy Futures Lab as a collaborative inter-disciplinary model to consider energy system transitions, adding insights from environmental justice to existing energy system transition theory. Such a project embodies numerous aspects of justice, and paves the way for broader systems change.*

Jason Byrne opened and chaired the session.

Anel Du Plessis (North-West University) considered the topic of *Reconfiguring of the Role of Cities In the Global Pursuit of Socially Just and Climate Resilient Communities*, stating that rapid urbanisation characterises our world. While the urban condition is often associated with better levels of education and job prospects, cities consume significant resources, and have a large impact on climate change. Additionally, urbanization may lead to entrenched social inequalities.

Urbanisation is a complex conception, understood through three main considerations: population growth, globalisation, and resources. Urbanisation theory fails to adequately address casual analysis. For instance, rarely asking why resources are lacking, or why social strategies are failing. At present, urban vulnerability is too vaguely conceptualised.

Instead, we must evoke a different perspective of the role of cities in building climate resilient communities and social justice. Marxist urban political ecological theory professes an integrated and relational approach to disentangling the interconnected economic, political, social and ecological processes that come together to form highly uneven, to deeply unjust urban landscapes. This helps to explain deeply rooted social inequality. An example of this is the coincidence of flood and mosquito proliferation in Jakarta, with the wider Asian financial crisis. This was a confluence of global climate disaster and global capital systems. Nature, society and the city are wedded together in a heterogeneous relationship, as there is no longer an outside limit to the city. Cities remain deeply unjust, and the structures which create this are local, regional and global.

Urban flows and interconnected global process make it impossible to construct universally true assumptions when we strategize towards socially just and climate resilient communities. Local changes and slow-onset impacts are as important. The cities goal (Sustainable Development Goal 11) focusses on a host of themes,

including housing and indigenous peoples housing. They focus on the numbers. However, the new agenda casts no light on causality and vulnerability.

It is odd that policies focus mainly on response, rather than first on matters of causality. This frames existing causality as 'natural', yet the vulnerabilities are really the result of social processes which benefits some at the detriment and expense of others. We must ask, who gains? In studies of cities such as Jakarta, often capitalism arises as a major factor in locating vulnerabilities. However, it is worth remembering that capitalism may be damaging, but it also may be emancipatory.

Edith Peters (Australian National University) discussed *Lessons for a Different Future From Local Government*, considering how we think about climate change adaptation, and why that matters. The presentation was framed through a theory of 'soft limits', which was originally proposed by theorists in 2009. The premise is that there are biophysical limits to climate change adaptation, as well as economic and technological limits to adaptation. However, there are also social limits to climate change adaptation. This includes knowledge and ethical priorities, and ideas of social risk. It is helpful then to distinguish between barriers to climate adaptation, and limits. A 'limit' may be considered a loss or risk, while a barrier prevents change.

In an exploratory study in Albury-Wodonga, conducted through interviews with local government members and officials, it was found that local governments have the capacity to lead, but also may be constrained by legislative boundaries, and mental limits. The study was framed through two mental models. Firstly, a risk-based approach to climate change adaptation is a response to different environmental risks created by climate change. These risks could be managed by mainstreaming climate change in governmental process, for instance emphasising the risks and responding to them, such increasing access for emergency services. The was also an emphasis on costs of climate change adaptation, i.e. noting the expensiveness of adaptation, as climate change is a minority concern in the community, not a priority.

Secondly, there was a transformative mental model of climate change, which saw adaptation as an opportunity. Climate change is a society wide problem, and therefore needs a society wide response. That response can be a broader based community capacity building reform, even addressing other social problems. This view included questioning other assumptions that society is based on.

The thesis is thus that the risk-based model is acting as a limit to action on climate change, and prevents action being taken. This shows that it is not just institutions that pose a limit to climate change adaptation. Alternatively, people who had a transformative mental model tended to have a sense of self efficacy and purpose, and often straddled various communities and had a broader worldview. The transformative mental model was more constructive in considering climate change adaptation strategies. Interestingly, those with the transformative mental model were both female.

Philippa England (Griffith University) presented on *Dealing With Floods In Australia: Resilience, Risk and Politics*, considering the differences between best practice, as opposed to real practice. Resilience in this context is defined as the ability to respond, recover, prevent and prepare. Australia has been historically good at responding and recovering, but not so much at preparing or preventing.

Prevention, then, requires looking at land use planning strategy. Ideally, they are the most cost-effective means of reducing growth in future flood damage and include risk-based management plans for each and every flood plain in Australia. Ideally, such plans will collect comprehensive information about flood behaviour, environmental and social factors, then generate different management options based on that information, gauge community risk appetite, and marry cost-benefit analysis with community input. But what happens in practice?

Apartments in Tennyson Reach, Brisbane, were built and approved by the state and local governments, and were touted as luxury living. The flooding of the area in 2011 and subsequent complete evacuation, cost about six million dollars. Some residents were evacuated for up to 4 months. It was known at the time of development that the apartments were built on a flood constrained site, and in the approval process a number of questions were never answered by the developer – yet it was approved regardless.

In *Radray Constructions v Hornsby Shire*, a seniors' living accommodation was proposed for land zoned as low density residential. The developer knew that land was prone to floods, and applied to build above the maximum possible flood level. This was refused by Hornsby Shire, and the court refused the application as well. The court's refusal was based on a holistic and precautionary approach.

Masonre v Logan City Council concerned an application for houses in a flood prone area, in which the developer proposed to put the house above the maximum flooded area on stilts. The court refused on the basis that it would be putting people in danger, whereas sound planning principles seek to prevent prospective residents from being at risk from such natural disaster at all.

These cases illustrate a precautionary approach, and include a normative, holistic consideration, rather than a highly technical approach. This evidently deviates from the ideal planning model above. Courts are suggesting not just risk mitigation attempts, but avoiding entering potentially affected areas at all.

Steve Williams (University of British Columbia) presented on *Implementing Just Energy Transition: The Alberta Energy Futures Lab* (EFL). The EFL is made up of 60 fellows across disciplines and organisations to consider energy transition. It came about in the context political controversy and polar opposites, such as the positioning of jobs against environment. The goals of the project are new partnerships, new standards, changed business models, shifts in public narratives, and changes in public policy.

Energy system transition theory looks both at shifts away from fossil fuels generally, but also changes in consumer behaviour, institutions, markets, business models and cultural discourses. But this neglects climate justice, i.e. considering who wins, loses, how and why. The environmental justice literature in therefore contributes useful concepts of procedural, distributive, and recognition based justice.

Distributive justice looks at who actually receives the benefits of a transition. In application to the EFL, this translates to ensuring indigenous people, for example living outside of the main cities, receive benefits from the transition. A procedural justice lens considers who gets to decide what the energy transition actually looks like, and who is present in the process of deciding. For instance, it could constitute engagement with representative groups and stakeholders. In practice, the EFL allows inputs from the fellows, with a wide-ranging membership, including many first nations representatives. Recognition justice is linked to individual/community identity and place. In the Canadian context, this means engaging with specific populations, and EFL seeks to focus on Indigenous fellows and partnerships, as well as recognising Indigenous ways of knowing and relationships within energy systems. An EFL example is the retraining of oil sands workers to learn solar installation, while also engaging with the Indigenous community through cultural integration.

EFL has engaged with these forms of justice. However, more discussions could be had around the role of a regime actors (e.g. oil and gas, government) in participation, as well funding pledges. Further, there is a need to consider broader systems change rather than focussing on individual one off projects. We need to move from critical theory, to critical problem solving, which looks for next best policy steps.

Activism 1

Abstract: *Activism is key to catalysing fair and equitable climate action at all levels of governance.* ***Thea Ormerod*** *discussed lessons learned by the Australian Religious Response to Climate Change in seeking to mobilise people to take action. The organisation delivers coherent messages across a range of faith-based groups, and has learned the value of nonviolent resistance and galvanising action by recognising common 'villains' in the fight. Real transformations are achieved when large groups of people are inspired towards winnable goals, and we succeed in change where we are connected, mutually supportive and combining our creative energies to create a better future.* ***Matthew Stilwell*** *provided an international civil society perspective and reflected on the ideas, movements and political agendas that provide an empirical basis for discussing what climate justice is and how it can be further advanced. Historically the global climate justice movement has evolved from many related struggles, including those around land, resources and rights, debt and structural adjustment, liberalization and deregulation. Networks have been formed both inside and outside the UN climate negotiations process, with a range of strategies being used. The African Renewable Energy Initiative was discussed as an example of an effective collaboration.* ***Zac Romognoli-Townsend*** *spoke to the experience of Seed Tasmania and efforts to transition to a 100% renewable energy future. Those that will suffer first and worst from climate change are those that have contributed least to the problem. Seed uses a strategy of 'talk, build and move' to mobilise young people around a platform that empowers them to take on the big issues and challenge the status quo. Seed has a vision for empowering different aboriginal communities to oppose fossil fuel projects and choose a clean energy future. We need leadership that supports alternative ways of living and supports a sustainable and healthy future for all people.* ***Discussions*** *took place around how working both inside and outside formal policy processes can be effective, and the need to retain meaning around what climate justice is. A focus on co-benefits was also discussed as a means to prevent people being disenfranchised by the climate justice movement by uniting around issues such as clean air, clean water and liveable cities.*

Liesbeth Feikema opened and chaired the session.

Thea Ormerod (Australian Religious Response to Climate Change) presented *From Spiritual Traditions to Collective Action: Insights from the Australian Religious Response to Climate Change*, and spoke to her experience in activism from working on issues including anti-nuclear, fair trade, trade justice, poverty focused aid, and most recently the response of the Australian religious community to climate change. What activates people and gets them moving has been the million-dollar question, and has led to a range of approaches to try and mobilise action over the years.

The Australian Religious Response to Climate Change is a multi-faith organisation that aims to deliver a coherent message from a range of different religious groups. The organisation is advocating for lifestyle changes that respect the earth's limits,

building on the opportunity for spiritual leaders to set an example. While also challenging governments, the voting public has been the key target of the organisation given the lack of engagement from the government on these issues. The organisation has emphasised positives by encouraging energy efficiency, local gardening and other solutions. To reach out to different faith-based groups, resources have also been produced linking scripture, theology, and prayers with climate action, including tools for Buddhist, Christian, Hindu, Islamic and Jewish communities.

As their experience grows, faith leader's statements have become stronger and more specific. The organisation drew lessons from Bill McKibben when he visited Australia, particularly his statement that "we're not in a debate; we're in a fight." It is important to recognise that there are 'villains' in our fights to get angry with. This framing can help galvanise connected, community-based, ethical, and strategic action (e.g. divestment campaigns). Lessons have also been learned around community organising and the value of nonviolent resistance, especially when dealing with a hostile government.

Overall, individual people vary in what motivates them to take action. Motivators include emotional awareness of threat; a way of connecting with existing values and beliefs; anger; and avenues for action that have the potential to deliver meaningful change (e.g. divestment as a means for individuals to take action); and high points that can be celebrated to inspire further action. We also need to be training and mentoring people with leadership ability. Real transformations are achieved when large groups of people are inspired towards winnable goals. We succeed in change where we are connected, mutually supportive and combining our creative energies to create a better future.

Discussions centred on how to deal with the 'brick wall' you often come up against with governments. How to bring along other members of Christian community and those that as a group can be resistant often culturally was also discussed.

Matthew Stilwell (Institute for Governance and Sustainable Development) presented *Climate Justice: International Civil Society Perspectives* and discussed activism, and how academics and activists can work together more effectively to influence outcomes, based on his experience working with the climate justice constituency, serving as a policy advisor to a number of developing country blocs at the UNFCCC and the World Trade Organisation, and doing academic work.

Different definitions of climate justice have been put forward at this conference. Climate justice can be conceptualised as a *term connoting a set of related ideas* that have been elaborated over past decade and are set out in range of principles and declarations; in terms of *movements* and those that self-identify with the climate justice movement; and in terms of the *political agendas* for climate justice that have developed. This provides us with empirical basis for discussions about what climate justice is and allows us to build on the substantial practice that already exists. There is an opportunity for academics to work with activists to identify, find alignment with, and bring their ideas to relevant and emerging policy areas.

Activists, in turn, need the grounding of good academic work to better understand what works in practice.

In terms of the origins, emergence and the current status of global climate justice movement, there are a number of roots. Firstly, climate justice is an extension of the struggles of indigenous and local communities for land, resources and rights. In developing countries this often stems from long-term struggles against neo-colonialism. A second strand of climate justice are campaigns and struggles against debt and structural adjustment, including around institutions such as the World Bank and International Monetary Fund that often fund projects harming local communities. Thirdly, protests around deregulation, privatisation, the role of the World Trade Organisation and other processes have formed part of the climate justice movement.

Generally, the groups from various struggles began turning their attention to climate change in the early 1990s, each bringing their different perspectives. Many recognised the global dominance of neoliberal ideas and issues around economic and environmental governance. At the UNFCCC, a platform for these groups was absent, with the civil society space primarily dominated by the Climate Action Network that presented a theory of change not shared by climate justice focused groups coming to the process. Consequently, the Climate Justice Now network (CJN) formed at the Conference of the Parties in Bali in 2007, uniting around the idea of "systems change not climate change". CJN presented a number of key asks, including leaving fossil fuels in ground and shifting to renewable energy, addressing consumption by the global north and southern elites, large scale financial transfers from the global north to the global south, addressing climate debt, taking rights-based approaches, and food sovereignty. However, CJN faced challenges as a mode for cooperation for a number of structural reasons. As a result, a subset of these groups formed within the UNFCCC. Since then, the group has worked towards a shared vision around equity, getting a global goal of limiting temperatures to 1.5 degrees Celsius into the Paris Agreement, climate finance, carbon markets, reduced emissions from deforestation, loss and damage, holistic Nationally Determined Contributions that ensure they do not narrowly focus on mitigation, and processes for scaling up action such as the global stocktake.

At the same time, new configurations also formed outside the UN climate negotiations. Those more critical of engaging in formal policy processes formed networks such as the Climate Justice Action, that see processes such as the UNFCCC as captured spaces they do not want to legitimise. Overall, there is a spectrum of strategies that groups working towards climate justice have taken, spanning those that work outside formal policy processes entirely and those that have both inside and outside strategies.

There are also structures in place at many levels. For example, the Global Campaign to Demand Climate Justice, regional groups such as the Pan African climate justice alliance, and national and local groups like Philippine Movement for Climate Justice. There are also a set of processes that are issue specific, including those around coal and oil. And there is the unification of these different global and

local groups around key political moments, such as when the UN climate change negotiations come to town.

Major demands have been set out in various documents including those by CJN, the 2009 Bolivian World People's Conference and the Global Campaign to Demand Climate Justice (DCJ). For instance, DCJ has called for transformation of energy systems, food sovereignty, rights to water, a just transition, safety and security from climate disasters, rights and empowerment, reparation for climate debts, climate finance, no false solutions or harmful policies, no commodification/ financialization of nature and a fair and science based international agreement. Understanding these demands provides insights into the content of "climate justice" and a locus for cooperation between academics and activists.

One recent example of an effective collaboration where lessons can be learned is the Africa Renewable Energy Initiative. This continental initiative, adopted by 54 States, was launched in Paris with USD 10 billion in financial pledges. The Initiative is set to achieve at least 10 GW of new and additional renewable energy generation capacity by 2020, and mobilize the African potential to generate at least 300 GW by 2030. This was a major outcome from Paris negotiations, and yet it did not exist 18 months beforehand. The Initiative is the result of collaborations between policy-makers, academics/experts and civil society. The formation of the Initiative demonstrates how those with different perspectives can collaborate, how climate change can be addressed in terms of its component parts, the importance of understanding the political economy you are engaging with, and the need to focus on structural change (not just getting energy in place but changing structure of political power by having communities receiving energy).

Discussions took place around the idea of 'spectrum politics' and how that can allow for a lot of different political perspectives, how progressive movements can organise together, how to work with those with different theories of change, how working both inside and outside formal processes can be effective, and the need to retain meaning around what climate justice is.

Zac Romognoli-Townsend (Seed, Tasmania) joined by video to present *Climate Justice Activism: An Indigenous Youth Perspective.* Seed is a group of youth leading a social movement to advance climate justice. The group has the aim of ending all new fossil fuel projects in Australia and moving towards 100% renewable energy.

There are many intersections between climate change and social justice. Those that will suffer first and worst are those that have contributed least to the problem. The richest in the world, such as those in Australia and the United States, are in this position because of fossil fuels, and yet it is the poor that feel the impacts of climate change.

Youth are becoming more engaged and often care about this problem, and so for Seed it is a matter of uniting these young people so they have a platform for action. Seed has adopted an approach of 1) talk (to enhance understanding); 2) build (to skill up volunteers through training); and move (to mobilise youth by getting them to attend meetings and other events that will help them engage directly in

activism). This approach has an exponential effect as those engaged each bring others in.

Seed has a number of rings it focuses on – known as the "four c's". At the outer ring, the group works with *community* who may not be aware of climate justice issues. It then *connects* with them through Facebook, newsletters and other platforms. Within the next ring are the people that are *committed* and will turn up regularly, and within the inside ring are the *core* group, including the national leadership team. Over time, the objective is to bring people from the outside of the model towards the inside, to expand the network over time. Seed takes a grassroots approach, based on connecting with who you know, inviting them in and making them feel welcome.

Having a platform to act is empowering in the face of issues that can be big and overwhelming, such as opposing projects like Adani. One of the biggest challenge are the number of people and entities with vested interests in maintaining the status quo. The barriers faced are both social and political - if people are not asking for change the government is not going to deliver change.

Seed has a vision for empowering different aboriginal communities to oppose fossil fuel projects and chose a clean energy future. Presently, aboriginal communities living in third world poverty are not in a position to decline offers made by mining companies to give infrastructure. They need the sovereignty to say no. We need leadership that supports alternative ways of living and supports a sustainable and healthy future for all people. We need a just transition to retrain those currently working in mining industry. And we need decentralised, community owned renewable energy generation. It is important to have indigenous people at forefront as they have a longstanding history of conservation and preservation of Earth. It is important to preserve and continue their tradition of being connected to the land.

Discussions considered how to balance engaging with those that are interested, while not polarising society and pushing people further in the other direction. A focus on co benefits was also discussed as a means to prevent people being disenfranchised by the climate justice movement by uniting around issues such as clean air, clean water and liveable cities.

Regional Perspectives

Abstract: *This session looked at the regional perspectives of climate change from LDCs in general, New Zealand and the Pacific Islands.* ***Rebecca Byrnes*** *discussed her research on increasing access to energy in LDC's. This focused on Ignite Power's work to provide tier one energy to households in Rwanda with solar energy. Key ingredients were identified to scale up the quantity of access people have to energy, and the issue of getting from tier one energy access to higher tiers was discussed.* ***Trevor Daya-Winterbottom*** *explored civil society strategies for future generations. There was a focus on New Zealand, which included discussion on governance arrangements for implementing the Paris Agreement, and impacts that these arrangements may have. The role of the next generation in reconfiguring environmental law to mitigate climate change was discussed. Contributions of Max Harris and Sarah Thompson were discussed, and it was mentioned that though not turning the tide, they have been an important catalyst for change.* ***Wesley Morgan*** *discussed the Pacific Islands perspective of climate change, and how Pacific Islanders have been crucial to international negotiations. The shifting of norms was discussed, and how Pacific Islanders play an important role as climate entrepreneurs, in the shifting of the global norm of not using fossil fuels.*

Aidan Davison opened and chaired the session.

Rebecca Byrnes, addressed *Scaling up access to renewable energy in Rwanda and Least Developed Countries***.** Least Developed Countries (LDC) are the 47 poorest countries in the world, and they have recently started renewable energy initiative. In the world currently 1.1 billion people do not have access to electricity, and half of these are in LDCs. Energy access aligns with many principles of justice, such as poverty reduction and economic growth. Energy access is also important for equity, as people have the right to sustainable and economic development. Economic development can help with climate change resilience, and thus energy access is important. There are problems getting finance for energy access, with only 0.2% of required finance being given. Therefore, there is a real gap for LDCs scaling up access to clean energy, especially poor areas.

In Rwanda, a person spends on average US$1.65 per week. Only 24.5% of people in the country have access to electricity. Rwanda has an ambitious plan to increase people with off grid access by 50 times, in one year by mid this 2018. They aim to do this by partnering with NGOs like Ignite Power, who provide access to solar energy to people in Rwanda and other countries.

There are a number of key ingredients in scaling up the quantity of energy access. Energy access can be understood by using a five-tier framework, where tier one is the lowest level of energy access with 1-4 hours of lighting per day in a household, while tier 5 is what would be found in developed countries such as Australia. Ignite Power for example, provides tier 1 energy access to households. There are five key ingredients to scaling up the quantity of energy access. These are: access to finance and capital; awareness of renewable energy solutions; technology; cost and

affordability; and government support such as good government policies, subsidies and partnerships.

Ignite Power is an example of what these key ingredients can look like. Ignite power gained access to finance and capital by working with the government. Ignite power promised the government they would provide access to energy for 250 houses in that area. This helped reduce perceived risk, as it was clear they would have this many sales. The government then made a guarantee that they would reimburse Ignite Power for the last 6 months if they fulfilled their profits. For the awareness ingredient, Ignite Power trained 1600 people that were able to deal with maintenance. Good quality technology was used, as people can lose trust if they have had bad experiences in the past with technology. The cost was kept low at only US$6 a month, however there are still issues reaching the poorest of the poor.

A contentious issue is that it can be difficult for people to move up tiers of energy access. When people bought the Ignite Power basic system, it was thought that as it was cheaper than the kerosene they were originally using that people could upgrade their energy access themselves, however this does not seem to happen in reality. In order to get between tiers 2 and 3, there may need to be government or international aid. Further research is needed into understanding what intervention would help households, so that they can see benefits of energy access, and what kind of aid would help this intervention. Additionally, there are questions about whether targeting residential households is the best for energy access. Perhaps, increasing energy access in production, or example agriculture, could be more useful as this targets economic development, rather than individuals.

Trevor Daya-Winterbottom (University of Waikato) addressed *Civil Strategies for Future Generations*. The governance arrangements for implementing the Paris Agreement was discussed, as well as the administrative justice issues and the potential for activist NGO strategies. After New Zealand ratified the Kyoto Protocol, there have been a number of cases that concern climate change impacts and greenhouse gas emissions from fossil fuel use. Cases originally had judgements where the Kyoto Protocol was taken into account, but they were still influenced by the preferred government policy. Then in *Genesis Power Ltd v Greenpeace New Zealand* the court held that the regulation of greenhouse gas emissions was not possible under the relevant act. In the Buller Coal litigation, there was also a negative outcome for the future of climate litigation in New Zealand.

However, despite the outcomes of these cases, younger generations can turn the tide in favour of climate justice. The role of the next generation in reconfiguring environmental law to mitigate climate change was also explored, using examples of Max Harris and Sarah Thomson. It was concluded that though not turning the tide, people like Harris and Thompson are an inspiring catalyst for change.

Harris decided he would formulate ideas for the future of New Zealand, that would have three components. These would be justifying foreign policy in ethical and political terms, decolonisation which involves using Maori values to create hard

legal norms, and a redistribution of public power through constitutional change. Harris also focused on New Zealand's relationship with wider Pacific and thought that New Zealand should be taking ethical lead on terms of issue of climate refugees, by legislating humanitarian visas for displaces people, for 100 people per year. Humanitarian visas for this purpose are now on the agenda.

Sarah Thompson pursued litigation about a Minister of New Zealand having the discretion to review Paris Agreement related targets and not using that discretion, as well as the inadequacy of the New Zealand Nationally Determined Contribution (NDC). The impact of the decision of this case, was that the court found that the Minister's decision was reviewable and that a remedy may have been granted absent the change to the political landscape of the time. Thus, climate change litigation is now firmly justiciable before New Zealand Courts (notwithstanding questions about dualism or polycentricism).

The decision in this case, as well as Harris' actions, have arguably galvanised the political will of New Zealand to focus on international responsibilities to its Pacific island neighbours. After this case, New Zealand even committed to be a 'net zero' GHG emissions economy by 2050. Based on these achievements by the young people such as Thompson and Harris, there is tremendous hope in what bright young people can do in the world. And the older people need to listen to these younger people of younger generations and take part of that dynamism and energy.

Wesley Morgan (University of the South Pacific) (by video) addressed *Pivotal Players: Pacific Islands & the End of the Fossil Fuel Era.* The agency of South Pacific countries in multilateral regimes, for example climate negotiations, was explored. Pacific Islands are key actors in climate change, to tackle the climate crisis that we all face. Pacific islands are particularly vulnerable to climate impacts. Every year 40 billion tonnes of carbon dioxide are released into the atmosphere, and yet political leaders have no fully grasped the enormity of the challenge we face. If nothing happens, our legacy will be climate impacts, mass extinctions and other legacies not to be proud of. The Paris Agreement was detailed for understanding, and it was noted that each decade society will need to see a halving of global emissions. 80% of fossil fuel reserves need to stay in the ground.

Climate change is a problem of global politics and governance. We need cooperative multilateral regimes that allow states to work together to tackle the problem. Ideas are very important. Normative ideas reshape politics. Norm refers to a standard of appropriate behaviour. Norms change over time, such as slavery, or the right to vote for women. Norm entrepreneurs help get new norms onto the global agenda. If enough people like an idea, norm entrepreneurs can redefine accepted behaviours or practices. Currently, we are at the end of a norm shift about fossil fuel use. People generally now realise that putting carbon into the atmosphere will undermine many of the Earths systems.

Pacific countries play a significant role in the global norm shift away from fossil fuel use as entrepreneurs. They have moral authority as they have been able to

reduce emissions and have deployed that in climate regimes. Pacific Islands have framed climate change as an existential issue, which has lead people to know it is a critical issue to take seriously. AOSIS was very influential in the design of UNFCCC, ensuring it reflects the concerns of small island states. After UNFCCC formed, the Pacific Island countries through AOSIS proposed a new treaty, with a multilateral approach, which became Kyoto Protocol. After the Kyoto Protocol the next major agreement was the Paris Agreement. Pacific Island countries were crucial to getting this successful outcome.

Discussion: Many questions were asked in this session. The topics raised included: how courts can argue a government selling coal is alright just because if they do not sell it, someone else will; how urban energy is made; questions about the financial gap related to energy; whether LDCs might put diplomatic pressure on developed countries to reduce their energy use in light of access to energy; the shifting or norms; climate change refugees and the term 'survival migrants'; the idea of moral leadership and ethical ideas being injected into the legal system; problems with the separation of powers; and how local groups can reach out to people in the Pacific about climate change issues.

Arts & Climate Change

Abstract: *Arts are at the core of how we might find lateral solutions for climate justice. The session addressed the role of artists and collaboration in documenting our changing climate and aiding in preservation efforts.* ***Guy Abrahams*** *addressed the value of culture and the power of art in providing tangible engagement with climate issues. CLIMARTE is a collaborative project that aims to inform and inspire action to climate change.* ***Meg Keating & Jacqueline Fox*** *discussed the Tasmanian Arts and Activism Project with the examples of the protests against the Lake Pedder and Franklin dams, and the Tasmania land conservancy's efforts to protect sites around Tasmania. Art in activism can capture the truth in ways that other forms cannot.* ***Jan Hogan*** *presented her work on seeking to form a contract with her environment to form a connection and sense of responsibility that is often lacking.* ***Susan Greenhill*** *discussed the unique role for writers in documentation before things are irrevocably confined to the past. There has never been a more vital time for innovation and looking outwards, as well as intimately inwards, in a time where our greatest threat is silence. Art has an important role to play in the efforts needed to transition to our imagined future, providing an open-ended enquiry and a space to consider the issues more broadly.*

Natasha Cica opened and chaired the session.

Guy Abrahams (CLIMARTE) was once a lawyer before moving towards the field of arts. After seeing a failing of the environment, he retrained in environmental politics. Abrahams discussed *Culture for Change: If not now, when?* Culture is an important element in addressing issues in the climate change arena. There are limits to growth and sustainable development, and these meanings have attempted to be conveyed to the public, however, this information is indecipherable and un-understandable to most people. Generally, people do not engage fully with the topic through rational interpretation of events. Culture is perhaps the oldest form of knowledge and has been engaged in the relationship between human kind and nature throughout history. More recently, we often only find out about historical thought and relations through culture and art. We know the power of art, for example the impact of Guernica about the message of the horrors of war. More recently, the power of Dombrovski's images brought to the attention of people throughout Australia the risks of losing the Franklin River.

We needed an organisation to bring together the creative contribution to climate change. Artists needed a cohesive body to present their message more broadly. This is what CLIMARTE aims to do – to "harnesses the creative power of the arts to inform, engage and inspire action on climate change". It brings together artist in Australia and around the world. No particular artist or cultural form may provide answers but this is not the purpose. It provides an open-ended enquiry and a space to consider the issues more broadly. Examples include exhibitions on migratory birds, the tangible harm of plastic in our oceans, indigenous art and the distracted nature of our society. As a result, CLIMARTE participated in ARTCOP21, providing powerful compassionate images to the discussion. A poster project was also commissioned to look at a clean energy future. There is a growing body of

academic research and literature about bringing culture into this space. It is an important part of the efforts we need to make to make the transition we need to.

Meg Keating & Jacqueline Fox (University of Tasmania) talked about *The Tasmanian Arts and Activism Project,* which aims to investigate and document the involvement of artists in protest. Collaborative eco-art process have a power that eco-advocacy does not. It has contributed to environmental campaigns and helps shape public opinion.

The first example was a documentary film about the damming of Lake Pedder and the imagery surrounding the damming of the Franklin River. The campaign to save the lake lost, but a green party was born. It has a melancholy tone. In the film, the decision to dam the lake is presented as a foregone conclusion and aims to be an immortalisation to preserve the memory of what is lost, instead of being a plea for preservation. They espouse the romantic notions of an untouched wilderness and the beauty of nature. In the early stages, the Tasmania Wilderness Society decided they needed national support, and marketed efforts through anti-bureaucratic methods to persuade the public of their cause. It was argued that Tasmania could not afford the dam, and preserving it would create more jobs than the dam itself. They used visual marketing and representation to let the wilderness speak for itself. The green triangle was harnessed and has continued as a symbol of activism. The resulting images from protests have documented the anxiety and tension between the public, media and dam workers, and foreground our wilderness as an artificial construct. The legacy of such works captured the public imagination in an experiential level, presenting open ended avenues for interpretation.

The second example surrounded the Tasmania Land Conservancy's efforts to protect sites around Tasmania. The Tasmania Land Conservancy frames itself as science based, but recognises not everyone connects to science. It has entered into partnerships with curators, artists and writers. They aim to raise the value of positive collaboration on climate issues, to unite rather than divide. The Skull Bone Experiment invited artists to immerse themselves in remote landscapes, and where they were provided with scientific information to deepen their experience. The kind of art and collaboration differs to traditional political campaigns. They were produced as a representation of an ongoing and respectful relationship with the artists and the remote landscapes to evoke passion and commitment to the environment.

Artists provide a new way to look at the environment that is experiential. They distil the environment in a way that the presents the challenges and values. Creative minds can capture the truth in ways that other forms cannot.

Jan Hogan (University of Tasmania) presented *The Art of Negotiation; The Negotiation of Art*, and visits Hinsby Beach every day as part of her work. The aim is to pay attention to landscapes, and enter into a contract with the place in which we live. The process of art can unveil the differences that occupy space. It must be noted that the line between what is natural and man-made is contested. In her

work on *Contract,* Hogan used large swaths of paper to let nature speak for itself. Her research takes the language of drawing into the environment and is open to chance, the weather and the unexpected results of working with ink and charcoal in an estuary environment. The aim of her research is to shift the language that acknowledges and environmental layers and the competing stakeholders of resources. It has been portrayed that artists are separated from the world, distinguishing between human and non-human entities. In Australia, art has been used in the negotiation of land rights and sea rights, presented with English written and signed petitions. Knowledge about land is passed on through stories and ceremonies in indigenous culture, particularly in the interaction of salt water and fresh water. Place and thought perhaps can never be separated because the land is alive and thinking, and humans provide agency to this thought. In indigenous culture, there is an inherent link between person, sea and land. As a settler, we rely on scientific knowledge, but we lack the connection and sense of responsibility to our environment. Through her work, Hogan begins to enter into this contract, which includes reference to the haunting of the past. In this process there are symbiotic relationships that must be managed. *Contract* reflects internal and external forces on the paper made by material interactions between the artist and the environment. The paper is marked by each point of contact, reminding us that our cultural forms are also part of this natural world. The fertile ground of the paper represents the forces we must interact with and the need to not become separated from it.

Susan Greenhill (Writer) discussed *The Role of Writers: Climate Change and the Ecological Imagination* noting that art has the ability to promote change and alter momentum. Writing and literature can imagine and articulate alternative futures, test them out, alter the status quo and articulate grief. Thus, writers are essential at a time of decision. However, there are disproportionality few and the struggle with the vastness and functionality of climate change issues are a barrier to their work. The inadequacy of our response to climate change is a failure of our imagination. We have lacked the tools and language to evoke the world we inhabit and the ways it is changing. The climate crisis has been met with science, described as catastrophic, but not serious. Today, we are the first to become aware of the gravity of the issue, and the last to bear witness to the state of our world today. Writers have failed to wholly describe this. It is a unique responsibility that may never come again. Apocalypse refers, not to the catastrophe itself, but to revelation. It may be a lifting of the veil that shines a light on the systems it disrupts. We can envision a future society and people can choose to turn away from or walk towards it. We can lend our skills to activists and engage with science to guide us through paths where literature has faltered. There has never been a more vital time for innovation and looking outwards, as things are irrevocably confined to the past. We can write about the intimacy of despair and about the loss of the things we love. The greatest threat is silence. Writers must end this silence so we can collectively sway our society in a sustainable direction. Greenhill ended by reading her piece ‘It Will Not Be Enough’.

Discussions included the angle of approach needed to provide the impetus to action, the cultural and artistic space provides a space for reflection. The enormity of the problem and the emotional responses to it are dealt with in an intimate and unique way through imagination and art interpretations. The relationship between art and activism was discussed, surrounding the role for art in giving meaning to motivation and action and the translation from an artist's personal meaning to the effects on consumers. Further, the seductive values of imagery are the darker, scrupulous side of the artistic interventions and there have been efforts to remove manipulators of aesthetics and build an awareness of visual culture.

Media/Psychology

Abstract: *This session examined the representation in and role of the media in relation to climate change discourse and conveyed an understanding of the psychological perspective of individual motivations for mitigation actions.* ***Linda Steg*** *outlined the role of values and past behaviour in shaping future action. Motivations play a key role in climate actions and responses to climate policy. The media is a space that reflects waves, but finds it difficult to create them.* ***David Holmes*** *is working in this area to present factual, non-persuasive information, in line with approaches being adopted in the United States. This is for the purpose of creating greater public awareness and dialogue that is often lacking in traditional and social media platforms.* ***Claire Konkes*** *discussed how climate change is communicated in Australia in traditional and social media platforms. The example of the Great Barrier Reef was used to illustrate the changing media landscape and how this has impacted on public opinion and action. Motivations for climate action are shaped by personal values and traditional and social media representation of information, however, creating a shift in understanding and action may require more than an increase in the quality and quantity of information we consume.*

Libby Lester opened and chaired the session.

Linda Steg (University of Gröningen), a professor of environmental psychology, discussed *What Motivates Individuals to Act on Climate Change?* Impacts are becoming more physical and complex and we need different actions to mitigate climate change. The general factors that influence individual action are values, such as self-enhancement, altruistic values etc. Climate action involves a value conflict. It can be costly and effortful to mitigate climate change. Therefore, we can make it beneficial and profitable. There was a study dealing with motivating action. Financial appeal was least effective, while environmental appeal was more effective. This is because financial benefits were generally small and fail to motivate effort. Acting upon climate change may have positive feelings. This is Eudaimonia. It reflects positively and encourages future action. This may be perceived literally, experiencing a 'warm glow' effect. Depending on your values you focus on different consequences of behaviour, forming preferences for certain types of behaviour. This also determines how we act on information we receive. Biospheric values effect identification as an environmentally aware person. This is also influenced by past behaviour, leading to further action. By reminding people they have not acted in the past, this leads to less identification as an environmental person and less action in the future. Thus, it can be seen that motivations play a key role in climate actions and responses to climate policy. Intrinsic motivation is a solid base for consistent climate action.

David Holmes (Monash University) is the director of the Monash Climate Change Communication Research Hub (MCCCR Hub) and discussed *What Role Have Media Played in Polarising Views on Climate Change In Australia?* It addressed the attitudinal behaviour in the media and how climate information is presented in

television. Our attitudes to climate change have been examined by similar studies in Australia and America. It is important to know because how the attitudes towards issues are stratified will inform how they are approached. There are categories of attitude identified, which are alarmed (who accept the science and feel the urgency), concerned (that the threat is close and believe with views based on cultural politics), uncertain (moderate belief but perhaps it is not anthropogenic), doubtful (low acceptance, no real anxiety, sees it as distant), dismissive (can be hostile, presented with facts makes more entrenched in position). A study was done of capital city television audiences in Australia. It found most people were interested in learning more about impacts of climate change in weather bulletins. Another study showed the difference in the discursive stance of articles about major weather events and whether they raised climate change as a contributing force and the level of politicisation. To communicate climate change better, MCCCR Hub is working with BoM, CSIRO as well as others in presenting non-persuasive factual information. In doing this, time series are used to illustrate the issue, in line with approaches being in the USA. It will include business as usual and Paris Agreement projections. Data will be included from thunderstorm asthma and increases in pollen. 91% of weather presenters were willing to present this information on climate change. There are 1500 packages, over every media market in the country for which MCCCR Hub is funded. Their operational structure includes being advised by climate scientists. The role of the Hub is to present science to society from trusted sources. If people trust the source or it is connected to something they care about, it will have greater impact.

Claire Konkes (University of Tasmania) is interested in the intersection between public opinion and media, and addressed the question *Are we getting better at communicating climate justice?* It was found that Australia had one of the highest rates of people who said they had not followed any news for a month, roughly half saying that they avoid it either sometimes, often or occasionally. Nevertheless, traditional print brands are read by roughly half of the population of Australia and access remains high. The overall snapshot of the media is that political and economic considerations trump scientific consensus. In Australia sceptics are represented relatively highly compared to other countries and have been privileged in this 'contest' and attempts at 'balance'. Further, political actors dominate as news sources. Social media sites are political communities because they have performative aspects, although they may not highlight the nuances that exist. There is little evidence of diverse perspectives coming together to engage in reasoned open public debate. In a pre-digital world, there were more barriers to information flows, however, with technological innovation the costs have decreased and competition has increased. NGOs have a notable reluctance to adopt social media because of cost of including "skilling up". A good example of how the digital space works for climate change is the monitored twitter use around the 2013 IPCC report. It found that only a few things were picked up and shared widely. The other interesting aspect is that the most frequently spread data was about sense-making, for example 'the five things you need to know'.

The study of protecting the Great Barrier Reef (GBR) looked at three instances (1974 when the GBR Marine Park was announced, 1981 which saw the GBR World

Heritage Area, and 2012 when there were calls to save the reef) during the fifty-plus years of activism. The actors were mostly political in traditional news media. It wasn't until 2012 that the idea of protection began to be rejected and there was a balance sought between environmental protection and industry. More news stories do not necessarily translate into strong messages of support for the environment. Ecologically sustainable development discourse privilege business interests. We are in a dangerous time: emerging environmental policy is not being celebrated or supported, but instead is being eroded by a 'balancing'. The courts are important because of their material power to stop or defer environmental harm that is a keystone of effective environmental public interest litigation. Further, it is in the court where symbolic displays are made and messages are played out. Generally, social media is where you find young, left-leaning people and it is important for sharing information and mobilisation. Nevertheless, traditional news media remains the arena for political contest, audience engagement, public understanding and policy development. Thus, the media we consume is a selection of sources, definitions, contests, authority and discourse, that is largely informed by ideology. Tackling the ideological shift needed is about more than increasing the quantity of information.

Discussion surrounded the areas for improvement of public understanding and the lack of connection to the gravity of the situation. Further, the attitudes of weather presenters in presenting climate change information, the space for climate sceptics, and advice for the 'Stop Adani' campaign were discussed.

Activism 2

Abstract: *This session looked at imagery, narratives, language and media representations of the climate change debate, especially in regard to climate activists.* ***Don McArthur*** *looked at how imagery is used by activists and groups within the climate movement, including organisations such as 350.org. Imagery is an important factor which has the ability to express important messages, inform public opinion and create political will.* ***Cynthia Nixon*** *presented research on how the media has portrayed the legal challenges to the Adani mine in Australia. Media tended to give equal weight to both advocates and activists, and failed to adequately capture the legal decision, but relied on PR material.* ***Chloe Lucas*** *considered the different reasons people may be unconcerned about climate change, including self-protection, a reaction to cultural narratives, and a perception of the responsibility of groups.*

Peter Christoff opened and chaired the session.

Don McArthur (Monash University) spoke to *Imagery and Climate Politics: How is the Climate Movement Using Imagery to Shape the Climate Debate?* He considered comments that the climate movement has lacked the powerful images the civil rights movement. The anti-slavery movement was built around information, but also powerful images which brought the information home. Photos of Pacific islanders, imagery in the Lock the Gate movement, and photos of the Stop Adani campaign all focus on people power – rather than vice versa, of people power mobilising *around* imagery. There is an important and powerful role for imagery. 'The display of symbols outweighs discursive argument', yet critical analysis has often focussed on dialogue, and images have often been considered mere supplements, accompanying written content.

Imagery makes climate change visible, tangible, and focussed in the public imagination. They project a vision for what the future would look like, and convey emotional power. In 350.org, visuals are prioritised, and used more than most. In fact, as evidenced in 350.org campaign manuals, imagery is considered at the centre of how social movements come about. An action photo the best tool for leveraging ones' event in the media and the community after a fact.

In thinking about climate politics, we can acknowledge how imagery, narrative and political theatre affect outcomes. In the case of the Pacific Warriors in Newcastle, the importance of imagery was embraced in the highest levels of government in the Pacific. This 'image event' captured the imagination of communities and leaders. Prior to the Pacific Warriors blockade, there was no established fight to save the Pacific island, apart from through formal governmental channels.

Imagery is thus generative, and impacts the social license of the institutions involved, such as that of the coal industry. The divestment campaign for example challenges the fossil fuel industry's legitimacy, and affects branding and social

opinion. However, the follow on impact of this climate movement has been described as motivating, yet falling far below the necessary political will.

Images, stories and political theatre help define the issue in the public imagination, leading to impacts on the public will, across awareness and cognition, as well as impacting the political will. The image is the node around which the public imagines the issue, recognises the issue, and what political options are viable. How we interpret the world is central to our ability to change it – interpretation and ability to change should not be separated out.

Cynthia Nixon (University of Tasmania) spoke on the topic of *The Adani Carmichael Coal Mine Conflict: In the Courts and in the Media*, focussing on how the Adani conflict is represented in the media, specifically how activists are portrayed. Activists generally struggle to get media attention, when compared to political elites, and the mining companies themselves. Media has to keep up with the 24 hour media cycle, and tends to focus on struggle and controversy. There is generally an attempt to remain balanced, and represent both sides of the conflict. Media will ask, why is the story valuable? What will hook readers? This influences how the story is told, and what actors are visible. Activists therefore tend to ramp up activities, and attempt to create drama and the perfect image. These can be described as strategic media events. The media coverage however, tends to be brief – 'just another protest'. Further, how media portrays legal action can occur differently to general activism, especially considering the technical and legal aspects involved in court decisions.

The Australian Conservation Foundation case is a useful case study. In 2015, the ACF challenged the Australian Environment Minister on the basis of EPBC Act, and his decision to approve the Adani mine. This occurred in a judicial review setting, looking only at process, rather than the merits of the case. A public interest litigant fighting in such a process is like fighting 'wearing a straight jacket.'

A comparison of The Australian and the Sydney Morning online newspapers offers insights about the framing. For instance, the Australian did not mention the Great Barrier Reef, or global warming, and had a photo of the Sydney cityscape, focussed on the fight in court. The Herald had a video of the Great Barrier Reef, with explanation of how coral bleaching occurs. Adani's response was very controlled and limited, contained to a paragraph, and this was quoted in numerous articles. The ACF on the other hand, did interviews, posted on Facebook, made videos etc., while their subsequent protest received almost no coverage. The coverage of the Environment Minister himself was extremely limited, as was the discussion of the court's actual judgement. Only the Guardian correctly described a portion of the court's reasoning.

Conclusions suggest that the media largely did not want to attempt to translate the legal judgement, but relied heavily on public relations material from the actors themselves. Which means the voice of supporters and the voice of the activists are coming through equally, shifting the conversation to what activists are doing to stop the mine, rather than the mine itself.

Chloe Lucas (University of Tasmania) presented on *Understanding Unconcern about Climate Change*. Simply providing knowledge will not necessarily change peoples' minds, and providing consensus messaging based on scientific data will neither necessarily engage people who are currently 'unconcerned'. These theories do not take into account the cognitive deficit model, and a concern deficit model. We need to take policy further by considering that people may not all have the same ways of thinking. Those current models create narrower fields of debate, so we need to look at how to engage more effectively.

In some studies, unconcern is described as apathy and denial. But unconcern can be tangled up in all aspects of life; better described as a presence of *other* concerns, rather than an *absence* of concern about climate change. It is strongly correlated to ideology, usually connected to the right of politics, as well as being correlated to being Christian. Additionally, there are group-based reasons for unconcern; climate change is seen as something that belongs to the environmental movement, and therefore positions those outside the environmental movement as rightly not interested in the issue. Self-protection is also a source of unconcern – this is a psychological defence to the possibility of emotional trauma, that is, there is a finite amount of worry one can have, and climate change far exceeds it.

Sources of unconcern tended to be a group based cultural narratives. For example, a young Liberal student believed in climate change, but was happy to jettison it as a political issue, as it 'belonged' to rivals the Greens as an identity issue. An older Labor voter felt that the Greens didn't look after people, or jobs – he believed in climate change, but was anti-environmental movement. Additionally, people put boundaries around themselves. For example, an extremely moral person within their own community positioned people from other communities as 'other', and outside of moral consideration.

We are all part of cultural narratives, part of systems in which we live. These in part come from the media, but often come from specific broader structures in society. It is worth considering how deeply these are embedded in our social groups. There is a need to re-pluralise, and a need to re-politicize the issue, in order to re-engage with people who are not usually considered within the discussion.

Nature and Place

Abstract: *One of the main themes of this session was the importance of experiencing nature through different mediums, in order to connect to nature.* ***Marion Marrison*** *discussed her photography work on local landscapes, and how this can stimulate curiosity about the bush.* ***David Stephenson*** *discussed a project he has worked on involving photography, with the aim of improving people's understanding of landscapes as complex environments that are impacted by human activity.* ***Andrea Breen*** *discussed her upcoming piece Adrift, and the complications of calling a collective 'activists' and the dilemmas this can create.*

Natasha Cica opened and chaired the session.

Marion Marrison (University of Tasmania), addressed *Close To Home: A Photographic Investigation of a Local Landscape.* Marrison's work focuses on the mission to stimulate curiosity about the bush. This work is taking photos of particular areas, focusing on nature. The methodology is to use the entire frame, and to move the focus of the camera around the frame, as that influences where one's eyes focus on the photo. There is no goal to find the perfect image. The photos should be read cumulatively. There are potential images to be captured every day, and it is a temporal and experiential process in a place that changes often. Blurriness can be a challenge, and we should know how it functions spatially and how it can be used to relate to a sense of being in bush.

Different photos were discussed, which highlighted different things such as subtle layers of height, seasonal changes in colour and vegetation, and the decaying timber that can be important for fungi. Both night and day photography were used intentionally, and these photos are used as a celebration, to be truthful to place. When one looks at a photo, they may see things they did not notice while there in that place in the present. This is important, as it allows people to notice what escapes observation. Recording sounds is also an important way to relate to a sense of being in bush.

One photo was of barbed wire and grass, which allows those looking at the picture to interpret it. One interpretation would be to think about what this barbed wire represents, such as the fact that fragmentation of landscape is increasingly common, which can have negative effects for animals that would normally cross where fences now are due to population growth and subdivisions.

Knowledge of bush landscape is important in this work, and aboriginal traces are still evident but have largely disappeared. Photographic process about establishing relationships with people in the place. Narrative is a means of contemplation, and when people can value the non-economic values of landscapes, this is an important thing.

David Stephenson (University of Tasmania), addressed *The Derwent Project: Visualising the Environmental Dynamics of a Watershed.* In this presentation a

project was discussed, where parts of the Derwent watershed were photographed, with the aim to improve understanding of landscapes as complex environments impacted by human activity, by creating new aesthetic models for representing a multilayers landscape over time, conveying its rich layering of information with clarity and impact. Other aims were to develop a highly portable means of image and sound capture that immerses the viewer in the remote environment of the Derwent watershed, and to develop a flexible and cost-effective display approach that can present immersive experiences in a range of different exhibition spaces.

These photos were taken in the Lake King William area, as the lake environment changes frequently. Is has a visual character can totally change. There are areas here, such as the flooded forests, that are compelling spaces that can be symbolic for the pressure people often put on the environment that causes damage. In this area photos were taken in three areas, the upper catchment area, middle reaches and lower reaches which are more effected by industrial activity. High quality and cost-effective cameras were used. Shots were originally taken from floating platforms, but later fixed platforms were used. Different types of footage were captured, such as time lapse footage and time-sliced images. 12 cameras were used: three in upper catchment area; four in middle reaches; and 5 on lower reaches. Cameras were set up to get still image every 5 minutes, and 2.5 million photos were taken. Support was given by Hydro Tasmania, which is how they got access to some sites.

Andrea Breen (Nelipot Collective), addressed *The Planet is Warming and Precarious.* This presentation started with a representation of the performance of seasons and reasons, which included a series of photos of nature accompanied with music including string instruments.

The Nelipot Collective has been developing a new piece called Adrift that focuses on oceans, and the demise of kelp on the coast and what this means for ecological and natural systems. One of the aims of presenting this piece is to engage people by increasing alertness about how people are experiencing climate change and exploring what it means for people both locally and global.

The Nelipot Collective are currently working on a grant application for this piece, and the collective has been invited to present the project at the Bay of Fires festival, where workshops will also be undertaken. In the past when the Collective has named themselves as activists, it has been a controversial way of presenting themselves. Difficulties were discussed in naming themselves as activists, and they generally find it easier to frame themselves in academic and artistic ways, rather than elaborating on the fact that they care about the world and the environment. This is a dilemma that they as a collective face.

Discussion: Several questions were asked of the speakers. The topics that were raised included: whether such emotional and intellectual work can be made by someone new to the area; how do people deal with the time before European settlement interpretively; how to insert hope into this kind of work; the

importance of awareness in assisting people to change with the changing climate; the importance of both scientific and intuitive angles to climate change issues; how this work is communicated; and how people broker working in a collective.

Panel Discussion: Film & Impact

Abstract: *The panel discussion on* ***Film and Impact*** *addressed the use of film to convey important messages, and how to ensure these messages are followed by community action.* ***Owen Tilbury*** *spoke about his experience establishing Tasmania's first film festival, Breath of Fresh Air. Breath of Fresh Air's mission statement is to inspire positive change and has incorporated strategies such as holding panel discussions to dissect films and apply them in a Tasmanian context to motivate social action.* ***Kyia Clayton*** *showed three short films designed to encourage environmental action. She explained that she chose films that evoked a sense of passion and emotion, were visually beautiful and incorporated articulate or poetic language to demonstrate that this can be more effective than confronting films.* ***Alex Kelly*** *explained the concept of impact producing, which involves developing an impact strategy for films with a particular social message, tailored to the intended outcome of the film. She spoke about her experience working on Naomi Klein's documentary, 'This Changes Everything', where the impact strategy involved mobilising social groups in each location the book was launched or film was screened.*

The sessions began with introductions from each speaker.

Owen Tilbury (Co-founder, Breath of Fresh Air Film Festival) began by speaking about the origins of Tasmania's first film festival, Breath of Fresh Air. Owen was a member of the Launceston Film Society and asked why Tasmania didn't have a film festival, unlike other states. The Launceston Film Society offered financial support to Owen to pursue the creation of a Tasmanian film festival, which began in 2004. The title of the festival represents its intention to create a space that for an open and collaborative sharing of ideas and a community focus, with 'not a black T-shirt or snooty attitude in sight'. Since opening the festival has grown to five times its original size.

Kyia Clayton (Tasmanian Eco Film Festival) spoke about the influence of her father's love of film and the inspiration she has drawn from classic films and actors from the 1950's and 60's on her own love of film. She showed three short films to demonstrate how film can convey a sense of passion and emotional connection with an issue while avoiding the outrage or discomfort that can arise from being too confrontational.

Alex Kelly (Independent Filmmaker and Impact Producer) began by acknowledging the indigenous owners of the land and the fact aboriginal culture has such a strong tradition of storytelling and has produced some powerful films, such as rabbit-proof fence and others.

Impact producing is thinking about the strategic distribution of a film. Producing a film can be a hard slog and often when a producer is finished they move directly onto the next project. However, for films with a message, it can be important to think about how to make sure the film gets its message out there. Different impact

strategies can be applied to different types of films – for example films targeted towards sugar consumption have a different goal to films about policy violence.

Climate and environmental films have been some of the pioneers in the impact producing movement, with an Inconvenient Truth, Gaslight, Frackman and Age of Stupid being some key examples.

Alex worked with Naomi Klein on 'This Changes Everything'. The impact strategy for this film was to engage with civil society and through a variety of book launches or film screenings brought together and tried to catalyse action from local activist groups.

Speakers then discussed a range of topics together, including the value of human stories as opposed to confronting films, how to mobilise action as a result of impact films and how to avoid being overwhelmed by fear or negative feelings when engaging with, producing and regularly watching impact films.

Kyia explained that she believes confronting films don't work – they turn people off and alienate certain portions of the population when what we should be doing is bringing people together with the common aim of saving the planet. Instead, she prefers films that speak to her mind, bring together visual beauty and articulate or poetic language as a piece of messaging about our planet.

The speakers particularly liked that the subject of the third film Kyia showed, 'Amazing Grace', was both the villain and the hero – this made the film more relatable and human, and was less confronting. Owen agreed that this is important and explained that Breath of Fresh Air's mission statement is about using film to inspire positive change. Alex emphasised that art is at the centre of film-making and the 'impact' aspect is built around it. The art is needed for the heart and passion elements.

With regards to making sure films bring about change, Owen described 'recreational grief' – the idea that people will watch an impact film and talk to their friends about it and how this will make them feel engaged, but that people actually need to 'get off their backsides' and do something about it. One way Breath of Fresh Air tries to achieve this is holding panel discussions after film screenings to deconstruct it and apply it in the Tasmanian context. Owen's key takeaway was that it is okay to get angry after watching a powerful film, but it is important to use this to ensure a big impact.

Alex explained that when trying to make an impact it is important not to build a mini-NGO about your film, but instead to find the people doing the work in the world, echo their message and let them carry the message forward.

On the topic of how to remain positive working in this space, Alex expressed that she is inspired by the success of projects she has worked on, seeing that her work can have an impact. Owen expressed that he believes community attitudes are changing and people are more receptive about climate change. Kyia said she tries

to make changes in the spaces that she can, and tries to relate to people and make their day better where she can.

Community event

Abstract: *Following the conclusion of the formal Conference program, a free community event was hosted:* A Community Response to the Challenge of Imagining a Different Future and Climate Justice: Focusing on Tasmania but with the Whole World in Mind*. The event was opened by* ***Margaret Steadman,*** *who reflected on key insights from the Conference. Audience members who had attended the Conference also provided their reflections.* ***Julia Curtis*** *worked to produce a visual record of the discussions as they unfolded.*

The group then entered a number of breakout sessions on the following topics:

Food

How can we create a secure, fair and healthy food future in Tasmania and contribute to the repair of the world? This session was facilitated by **Tony Scherer** (SPROUT) and **Gabrielle Gartrell** (Okines Community House).

First considering food production and community gardens in Dodges Ferry specifically, the group looked at a transition to fair and equitable farming, which would move towards a more organic, smaller, community farming, rather than larger supermarket options. People need to be able to prepare and choose healthy food – there is a need to change the culture of rushing into the supermarket. We must change lifestyles in a broader community sense.

We need to eat less red meat, change the mix of crops grown in Tasmania and move towards more tree crops rather than cultivation, as soil preserves carbon. Factory farming, foreign ownership and chemical agriculture need to be discouraged or phased out. Further, we need to analyse many of the systems that we currently use to produce and consume food, and educate consumers.

The overall aim is to secure a fair and healthy food system. The discussion facilitators gave some information on eating local, community gardens etc, but the difficulty is finding how to move towards system that is not reliant on fossil fuels but is a truly sustainable system. The main idea was a Tasmanian food security plan. We need to get stakeholders together, and additionally the government should be on board, as food is an important topical issue, alongside tourism.

Energy

What could the Tasmanian energy system (electricity, oil and gas) look like if it were seriously decarbonising and equitable? This session was facilitated by **Jack Gilding** (Renewable Energy Alliance) **and Alderman Anna Reynolds**

The group started with a big vision of becoming 100% renewable, and discussed how society should try to do this in a democratic way. Perhaps Tasmania could be the Denmark of Australia? The group identified that multiple problems could be solved at once, and this should be strived for. For example, transport management and carbon dioxide emission reductions could be solved by reducing the demand on transport. There were also engaged discussions about issues of sustainability, energy and equity.

Energy was discussed generally. Currently the state of Tasmania still owns all electricity businesses. It was suggested that we could have a community owned energy retailer, which could be a part of equity solutions. The possibility of a large-scale wind projects, and roles for off grid technology were discussed as well. It was recognised that Tasmania has some large industrial users of energy. There was a general feeling that these are still important, as they are important for the economy, and if people need, for example, aluminium to build solar panels, it would be better for this to be made in Tasmania with renewable energy. It was discussed that public education needs to be a part of creating a more energy friendly Tasmania.

This group also discussed transport solutions. There was a vision that Tasmania should be best practice and could demonstrate this through multiple tiers of action across the area of transport. There were challenges identified, such as the fact that the population of Tasmania is highly dispersed, social equity, and the 'last mile problem'. Some possible solutions identified included shared transport options, electric cars, subsidies by the state for public transport and making public transport more functional. It was also mentioned that people should be encouraged to use less energy transport and should reflect on why we use such high emissions forms of transport in order to find appropriate solutions to tackle transport issues.

Shouldering responsibilities

What is our fair share of the carbon 'task'; how should we be acting as part of our Pacific neighbourhood? This session was facilitated by **Todd Houstein** (Sustainable Living Tasmania)**, Carole Benham** (Climate Action Hobart)**, and Brook Dambacher** (International Justice Initiative)**.**

Discussions started by talking about the injustices that exist. Currently, the largest impacts are beared by those least responsible and able to respond. Further, we have used our fair share of the global emissions budget. Now our responsibility is to do all that we can, with regard to differing capabilities. This can be done by reducing our own emissions, supporting developing countries in reducing theirs, assisting adaption and dealing with loss and damage. This may mean helping with disaster relief and refugee support at a local and national level. In terms of the individual level, we must do all that we can and reduce our personal emissions. We must petition for lowered national emissions and look to our professional and community roles to embody empathy and mitigation. It is a matter of asking the

question of yourself in your unique context - “don’t let the perfect be the enemy of the good”. Do the best you can, learn from it and then do it better.

Crafting a just and regenerative future

Living it now. What do a flourishing new economy and society look like? This session was facilitated by **Source Co-op and friends, and Circular Cygnet**

The barriers that might prevent a just climate future include physical barriers, social barriers, and internal barriers such as a socialised way of being and a lack of confidence. To overcome these barriers we can establish relationships, listen and build connections. For example, by listening to grievances that people have. This may automatically dismantle the barriers between different groups so we can find shared values. From that point we can have solidarity, and not use the knowledge we have to blame each other. The sharing of knowledge is an important component of this as well as leading by action, and being an example to inspire others to act. We must remember that outcomes are not always immediate, rather it is like planting a garden.

Insights from Source Cooperative showed that cooperative social structures can be useful, as can a circular economy way of keeping resources within the community. Moving forward from here requires looking at the practicalities. For instance, use the ‘step up step back’ approach to include everyone in the conversation. This is an issue of power that goes all the way from local to international environmental movements. It requires a consideration of the financial pressures that bear upon people as well, and the fact that some people cannot be present.

Reaching out

Ways to connect that work. How can we increase the voices that support climate change action? This session was facilitated by **John McRae** (Uniting Church and Climate Action Hobart), **Margaret Steadman** (Climate Action Hobart), **Thea Omerod** (Australian Religious Response to Climate Change), **and Nivy Balachandran.**

An important part of communication is to find the hidden qualities of a person’s life. Knowledge can be like an iceberg, where most of the content is hidden. It was discussed how we can include people who are normally absent in conversations. There is sometimes nervousness of ethnic communities about engagement. Solutions were discussed in how to effectively engage people in communication.

It was identified that it is important to sit with people long enough to know who they are, in order to communicate well with them. Communication is about trust built on time spent in company. One must declare who they are, but also allow the other to explain what is important to them and who they are. Sometimes the most important part of communication is not what comes of the communication, but the communication itself, and people need to keep that in mind when connecting with

others. Additionally, unless people are ready to receive information, they will not receive it. In order to convey information effectively one must engage the other's values. People respond to personalised information, and stories and narratives. For example, climate change can be seen from social, scientific, economic perspective.

Indigenous knowledge

What do we need to learn from the holders of indigenous knowledge? This session was facilitated by **Ruth Langford** (Nayri Niara Good Spirit Festival)

Time was spent trying to understand the challenges faced in our lives and that it is all part of what we are and who we are. We all belong to each other and this planet. It is how we engage with that in intergenerational ways that matters. Personal insights included the struggle with belonging to many places where there are ancestral or temporal links. It was suggested that all you need to do is turn up in each instance and the labels do not matter. A lesson from indigenous culture is that allies and forbearers are intrinsically linked to one's identity. Looking back is integral to looking forward and imagining a different future. The big question is how to spread that more generally to generate change. Another lesson is that humans belong to the earth, which acted as a profound reminder when struggling with feelings of anger towards human actions. We are multi-dimensional beings and all of the entities that have connection to land have known this. This connection is where we can find healing and motivation. We cannot separate our interconnectedness. We cannot isolate humans and say they need to be looked after over others.

Closing

Jan Linehan and Peter Lawrence (University of Tasmania), in their capacity as Co-Convenors of the Conference, thanked all the participants, volunteers, musicians, co-sponsors and other organizers of the event. They concluded by recalling the opening words of **Aunty Verna Nichols**, and calling on participants to pause in silence to honour once again the traditional custodians of the land on which the Conference was taking place, as well as indigenous elders past, present and emerging as we carry forward the work of imagining and realizing a different and better future together.