

# *Let the Son Shine*

An Australian Catholic Response  
To Climate Change

**Charles Rue**



Published by the Columban JPIC Office  
Columban Mission Institute  
Locked Bag 2002, Strathfield NSW 2135  
Phone 02 9352 8000

<http://www.columban.org.au/our-works/JPIC-Justice-Peace-Integrity-of-Creation/climate-change/>  
Design and Layout: [www.jasperdesign.com.au](http://www.jasperdesign.com.au)

© Charles Rue, 2009, revised 2013

Charles Rue  
Let the Son Shine: An Australian Catholic Response to Climate Change  
ISBN 9780646495439

The author thanks Claude and Iris Rue for their financial support.  
The author thanks David Brennan for his comments and advice.

# Contents

---

PAGE

Contents of Between Calamity and Hope (2013 Update).....	4
Foreword by Geraldine Doogue .....	5
Let the Son Shine: An Australian Catholic response to climate change.....	6
Prayer as a response to climate change.....	7
The ‘see-judge-act’ model.....	9

## See

The evidence for climate change .....	11
Severity of climate change in Australia .....	13
Three seminal Australian books on climate change .....	14

## Judge

Traditional faith resources help in making a Catholic response .....	15
New interpretations of Scripture .....	17
Catholic environmental ethical principles .....	19
Morally questionable ‘solutions’ to climate change .....	21
Some initiatives by the Church .....	24
Identifying key sectors for individual and community action .....	26
Agriculture and forestry .....	27

## Act

Learning the language of climate change .....	29
Being fearless truth-tellers .....	30
Fostering government leadership on climate change .....	31
Responding to climate change: deepening faith .....	32

Conclusion.....	37
-----------------	----



Between Calamity and Hope Introduction..... 39

*See*

Sea and temperature rises..... 40  
 Soil carbon and climate change ..... 42  
 Water and climate change ..... 44  
 Coal seam gas and mining expansion..... 45  
 Tax regime..... 47  
 International aspects of climate change ..... 48

*Judge*

Ecological vocation ..... 49  
 Biodiversity ..... 51  
 Limits to development ..... 52  
 Morally questionable solutions..... 53  
 The media and truth about climate change..... 54

*Act*

The Climate Commission ..... 55  
 Church activities create hope ..... 57  
 Ecological heroes and saints ..... 59

Conclusion in 2013..... 61

Prayer in the time of climate change..... 62

About the author..... 63



## Foreword

Father Charles Rue's neat, short guide to new thoughts on environmental wisdom belies its weighty intentions. He wants to prompt Catholics towards a practical new 'calling'; to believe the Earth deserves commitment and compassion in a similar vein to the option for the poor, the Church's great invitation to its followers based on Christ's sentiments about the virtue of ministering to those with no perceived status. Father Rue's work in *Let The Son Shine* proves that Churches and religion definitely have something useful to add to the debates about responsibility for human behaviour change. It is fresh and useful. It is also very ambitious, which is what I like about it most. Mercifully it cuts through the over-supply of rhetoric around this subject, much of which can be quite lazy and unoriginal – and I very much like that about it. Many activists seem to believe the science must be hurled at people, in louder and louder tones, till they 'get' it. For a while now, in my judgement, this has had progressively less effect, a bit like chopping with a blunt axe.

Fr Rue, on the other hand, has had the nous to mine his own tradition, Roman Catholic Christianity, to see what it might offer at both a macro and micro level, if you like. He gives plenty of examples of both. He quotes the German thinker Max Weber's observation that religion can either reinforce the status quo or challenge it to transformation – a very good re-statement of the spectrum of attitudes within the Church. He consults the Gospels alongside the learnings of Vatican II, together with some gems from recent encyclicals. Most interestingly, he returns to the good old Young Christian Workers' dictums: See, Judge and Act. For someone of my age, who spent about four years at high school immersed in this movement, this was genuinely refreshing. YCW was inherently practical, very much a hands-on encouragement to reflect on how your faith might be applied to your particular life arena. It wasn't prescriptive, in the way other religious education was; it was heavily based on discussion, and its theology had a 'get-on-with-it' feel. All that is evident here and results in a deceptively simple but significant work.

What is particularly inviting is his insistence on the power of prayer. During a typical Sunday night suburban Mass, I once heard a Jesuit priest, Fr Gerry Healey, give an illuminating explanation about the supposed 'magic' of prayer. 'Prayer changes people,' he said, 'and people change things.' I've never forgotten this clever logic, citing the link between desire and apparently unreachable outcome so firmly within the human realm. I think it's in this spirit that Fr Rue believes it's worth praying for the Earth. He seeks to focus people's minds via imagining better conduct towards the Earth, then praying for change among those who use (and abuse) it; accompanied by breakthroughs on the part of skilled people seeking to tap science and industry for better answers.

Systems matter, he states bluntly. And a Catholic response must be equally systematic. This was music to my ears.

I consider this quite a prophetic work. Its apparent simplicity and brevity hides an abundance of virtue and will confer wisdom on the reader beyond its stated subject matter, namely climate change. I hope it is not his last word on the matter, for on this issue, there is much to come.

Geraldine Doogue

# Let the Son Shine:

## An Australian Catholic response to climate change



*'Man, especially in our time, has without hesitation devastated wooded plains and valleys, polluted waters, disfigured the earth's habitat, made the air unbreathable, disturbed the hydrogeological and atmospheric systems, turned luxuriant areas into deserts and undertaken forms of unrestrained industrialization ...'*

Pope John Paul II

The words 'climate change' are on many people's lips. Scientific evidence has convinced many that humans are largely responsible for this change and must act urgently to address it. Others have been shocked out of complacency and into reflection by fickle weather conditions, ranging from recent hurricanes in New Orleans to a ten-year drought throughout Australia.

There is plenty of information out there for those with ears to hear, and Australian voters seem to be taking



NCC NSW

notice. They voted out the Coalition government in late 2007, pressing for leadership on climate change and a vision for the nation's future.

The same voters,

however, have put the new Labor government on notice to act urgently in forging a carbon-neutral future for Australia. Recent scientific data has shown that the world climate situation is growing worse, compounded by the peak and decline in world oil production, financial chaos and threats to sustainable agriculture and food security, all of which combined will help radically alter life as we know it.<sup>1</sup>

What can the churches add? In the first place, Christian beliefs can help people to identify the central values they bring to the climate change issue; in the second, faith can be a source of courage to help people to confront the changes needed in their individual and community lifestyles, and the urgency of the need for change. Faith-based learning and motivation can help Christians, and Catholics in particular, make a four-part response to climate change:

- to be truth-tellers
- to be spiritual visionaries
- to be just and compassionate
- to be social activists.

This kind of response is Gospel-based missionary activity for our age, valuing the power of faith.

Ultimately, Catholics need to cooperate with others on the climate challenge at a deep level, but first they must immediately strive to get the Church's own house in order. Neglect would be a sin of omission. This paper will discuss and explore two major ways in which we can address Catholic thinking and acting on climate change in the light of faith. They are:

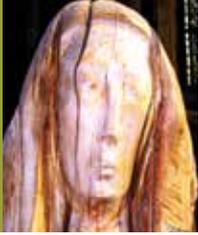
- prayer at every stage of a Catholic missionary response to climate change
- systematic response, using the *see-judge-act* model.



1. Sean McDonagh *Climate Change: The challenge to all of us* The Columba Press, Dublin, 2007, pp. 137–51; [www.lifeaftertheoilcrash.net](http://www.lifeaftertheoilcrash.net)

# Prayer

## as a response to climate change



**‘... in a profound sense the earth is suffering and the greenhouse effect has now reached crisis proportions ...’**

Pope John Paul II

Prayer, talking with God individually and as a community, is at the heart of Catholic life. When considering climate change, every style of prayer comes into play, from thanksgiving to lament, but particularly humble listening.<sup>2</sup> For example:

- *prayers of gratitude* for scientists as truth-telling messengers of God
- *prayers in awe and praise* of the great mysteries revealed in Earth’s systems and our place in its story
- *prayers of humility*, asking God that we accept our proper place in this community we call Earth
- *prayers asking for forgiveness* for our presumptuous lifestyles and arrogant deafness
- *prayers for courage* to change our ways.

Consideration of the full range of prayers in a response to climate leads us to revisit the virtues – wisdom, prudence, humility, fortitude and the like. They speak of values that easily relate to issues surrounding climate change and further focus our prayer. In this way, considering climate change can add substance to our prayer and moral quest.

When considering climate change, *prayers of compassion* are significant – compassion for human victims who lose their lives, homes and livelihoods; compassion, too, for home-owners and business people seduced by the ‘Australian dream’, based as it is on current economic models of profligate fossil fuel use. Understanding and compassion are needed for these people, who are faced with trauma and are experiencing

emotional turmoil.

Something new for many people is prayers of compassion for *Earth herself*. She is being violently pushed into a new stage of evolution and losing millions of her species. Jesus wept over Jerusalem and we can weep for God’s creation and our stubborn refusal to listen to what Earth is telling us. Pope John Paul II often spoke of compassion for Earth and wrote in his 1990 World Day of Peace Message:

*... in a profound sense the earth is suffering (Hos 4:3) and the greenhouse effect has now reached crisis proportions as a consequence of industrial growth, massive urban concentrations and vastly increased energy needs ... [T]he resulting meteorological and atmospheric changes range from damage to health to the possible future submersion of low-lying lands ... [N]o peaceful society can afford to neglect either respect for life or the fact that there is an integrity to creation.*

St Francis of Assisi shows us how we can make ecological sensitivity a part of our spiritual journey. He showed respect, and particularly ‘courtesy’, towards nature in both its living and inanimate forms: he called it brother and sister, an example of genuine prayer and compassion for every aspect of Earth. Pope John Paul II named Francis as the patron saint of ecology.

Popes Paul VI and John Paul II, in their readings of the signs of the times, both put *dialogue* at the centre of mission.<sup>3</sup> To paraphrase Pope John Paul II, since mission is primarily the work of the Holy Spirit, entering into



## Pope John Paul II on dialogue

this process of mission dialogue needs prayer – both for the guidance of the Spirit to develop a listening and discerning heart, and for the humility to learn and make cooperative responses with all peoples.<sup>4</sup> Consequently, at the same time as Catholics witness to their tradition and what the Spirit is doing in their own lives, they listen to the voice of the Spirit speaking through world events and modern people's movements. Catholics are now discovering that the Spirit is speaking both through the environmental movement and through the events of climate change itself. Notably, Pope John Paul II insisted that the listening, dialogue and cooperation that flows from being attentive to the Spirit is not some missionary ploy but a Spirit-given opportunity for both sides to learn and grow.

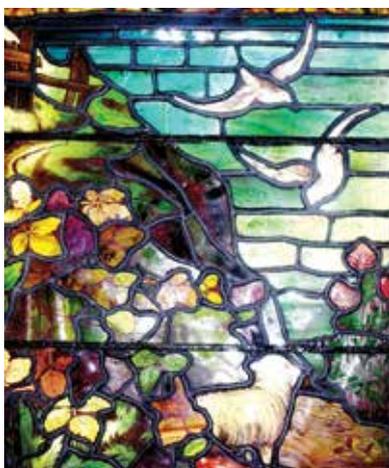
Pope John Paul has given two very powerful phrases to the Church: *ecological conversion* and *ecological vocation*. They help make environmental concerns integral to Catholic faith. These phrases flagged a new era in the Christian journey and a new task for Catholic leadership.<sup>5</sup>

Catholics are blessed by the gift of faith, and their mission in the world as individuals and Church communities is to witness to God's reign – to be in the service of God's big plan and pray that their missionary efforts may announce and help bring about the *dream of God*.

56. Dialogue does not originate from tactical concerns or self-interest, but is an activity with its own guiding principles, requirements and dignity. It is demanded by deep respect for everything that has been brought about in human beings by the Spirit who blows where he wills. Through dialogue, the Church seeks to uncover the 'seeds of the Word', a 'ray of that truth which enlightens all men'; these are found in individuals and in the religious traditions of mankind ... This gives rise to the spirit which must enliven dialogue in the context of mission. Those engaged in this dialogue must be consistent with their own religious traditions and convictions, and be open to understanding those of the other party without pretense or close-mindedness, but with truth, humility and frankness, knowing that dialogue can enrich each side ... Dialogue leads to inner purification and conversion which, if pursued with docility to the Holy Spirit, will be spiritually fruitful.

57. A vast field lies open to dialogue, which can assume many forms and expressions ... Each member of the faithful and all Christian communities are called to practice dialogue ... I wish to encourage them to persevere with faith and love, even in places where their efforts are not well received. Dialogue is a path toward the kingdom and will certainly bear fruit, even if the times and seasons are known only to the Father (cf. Acts 1:7).

*Encyclical The Mission of the Redeemer*



2. Nathan D Mitchel, 'The Amen Corner' *Worship* Mar 2008 pp. 161–74. He argues that the rule of St Benedict teaches a prayer style that is attentive to the word of God communicated through what the senses tell us.  
3. John Paul II, *Redemptoris Missio* (Mission of the Redeemer) 1990, No. 56–58  
4. *ibid.*, No. 21. See also Christopher Jamison OSB, *Changing the Climate: Spiritual Steps for Sustainable Living*, [www.operationnoah.org/resources/religiousinspirations/changing-climate-spiritual-steps-sustainability](http://www.operationnoah.org/resources/religiousinspirations/changing-climate-spiritual-steps-sustainability)  
5. General Audience 17 Jan 2001; and Message to UN Summit on Sustainable Development Aug 2002.

## Pope John Paul II on 'ecological conversion'

3. Man's lordship, however, is not 'absolute, but ministerial: it is a real reflection of the unique and infinite lordship of God. Hence man must exercise it with wisdom and love, sharing in the boundless wisdom and love of God' (*Evangelium vitae*, n. 52). In biblical language 'naming' the creatures (cf. Gn 2:19–20) is the sign of this mission of knowing and transforming created reality. It is not the mission of an absolute and unquestionable master, but of a steward of God's kingdom who is called to continue the Creator's work, a work of life and peace. His task, described in the Book of Wisdom, is to rule 'the world in holiness and righteousness' (Wis 9:3).

Unfortunately, if we scan the regions of our planet, we immediately see that humanity has disappointed God's expectations. Man, especially in our time, has without hesitation devastated wooded plains and valleys, polluted waters, disfigured the earth's habitat, made the air unbreathable, disturbed the hydrogeological and atmospheric systems, turned luxuriant areas into deserts and undertaken forms of unrestrained industrialization, degrading that 'flowerbed' – to use an image from Dante Alighieri (*Paradiso*, XXII, 151) – which is the earth, our dwelling-place.

We must therefore encourage and support the 'ecological conversion' which in recent decades has made humanity more sensitive to the catastrophe to which it has been heading. Man is no longer the Creator's 'steward', but an autonomous despot, who is finally beginning to understand that he must stop at the edge of the abyss. 'Another welcome sign is the growing attention being paid to the quality of life and to ecology, especially in more developed societies, where people's expectations are no longer concentrated so much on problems of survival as on the search for an overall improvement of living conditions' (*Evangelium vitae*, n. 27). At stake, then, is not only a 'physical' ecology that is concerned to safeguard the habitat of the various living beings, but also a 'human' ecology which makes the existence of creatures more dignified, by protecting the fundamental good of life in all its manifestations and by preparing for future generations an environment more in conformity with the Creator's plan.

## The 'see-judge-act' model

Systems matter. Climate change is being caused by a breakdown of Earth's temperature regulation system. When Earth's climate systems create a hurricane or cyclone to redistribute heat away from the tropical oceans, she is merely cooling herself. It is not Earth's fault that cities like New Orleans or Darwin lie in the way of these weather events; it is humanity's systematic use of fossil fuels that cause Earth to heat up. And business managers are just being logical when they use the cheapest available means of energy in a systematic way. So a Catholic response must be equally systematic as it seeks to understand patterns of climate change systems, expose modern economic systems that push energy-intensive lifestyle choices, and act systematically to address the human causes of climate change.

A systematic Catholic response to human-induced climate change could model itself on the 'see-judge-act' method created in the early 1900s by Father (later Cardinal) Joseph Cardijn for the Young Christian Workers (YCW). The method brought the light of faith to workers' industrial situations: workers were to become conscious of being responsible within their own situation.<sup>6</sup> Pope John XXIII, in *Peace on Earth*, wrote of the need for analysis to apply and reduce social principles to practice, but warned that *analysis* was not to lead to *paralysis*. John Paul II took these insights further when he wrote about analysis of the reality of *structures of sin* and *social sin*.<sup>7</sup>

The Federation of Latin American Bishops' Conferences (CELAM) has repeatedly affirmed the effectiveness of the see-judge-act model by adapting it to their local situation. Working in Africa, Jesuit Father Peter Henriot has named this method of reflection and response the *Pastoral Cycle*. In 2007, Caritas International adopted the Cardijn way as a model for a Catholic





## See-judge-act: discerning God's presence and purpose

The People-of-God believes that it is led by the Lord's Spirit, Who fills the earth. Motivated by this faith, it labours to decipher authentic signs of God's presence and purpose in the happenings, needs and desires in which this People has a part along with other men of our age. For faith throws a *new light* [see] on everything, *manifests God's design* [judge] for man's total vocation, and thus *directs the mind to solutions which are fully human* [act].

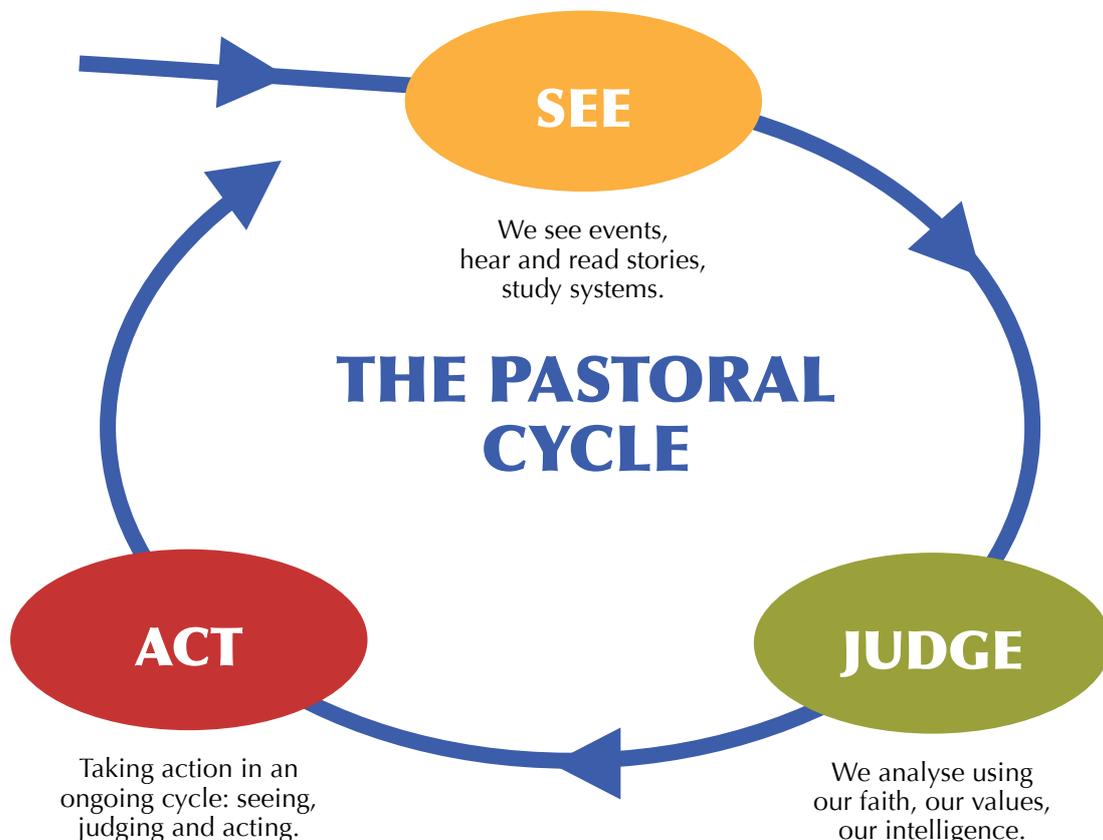
Pope Paul VI, Pastoral Constitution on the Church in the Modern World  
*Gaudium et Spes* No 11

response to the United Nations Millennium Goals.<sup>8</sup> The strongest endorsement for this systematic approach remains the Second Vatican Council and its Pastoral Constitution *The Church in the Modern World*,<sup>9</sup> which expresses the heart of the Cardijn way. The

Council called Church communities to begin from the world's agenda and cooperate in the light of faith in finding solutions to major problems of the modern world. Importantly for Australia, which is so close to Asia, the Pastoral Constitution in its 'method, spirit, and vision finds

resonance among Asians'.<sup>10</sup>

Since the 1970s, the Columban Justice, Peace and Integrity of Creation (JPIC) Office has used social analysis as an amplification of the see-judge-act method. This is the spirit in which this paper is written.



6. To use the later words of Pope John XXIII in his 1961 Encyclical *Mater et Magistra* (Mother and Teacher).

7. *Catechism of the Catholic Church*, St Pauls, Homebush, 1994, No. 1869.

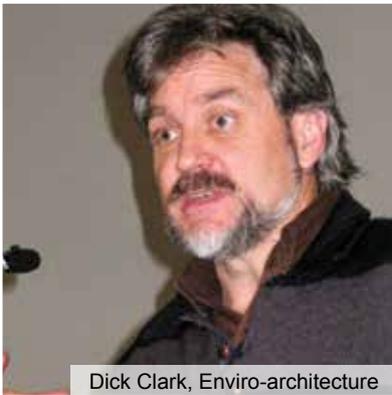
8. Caritas International, 'Breaking with Business as Usual: Achieving the Millennium Goals', 26 Mar 2007, [www.caritas.org](http://www.caritas.org).

9. Pope Paul VI, Pastoral Constitution on the Church in the Modern World *Gaudium et Spes* Nos. 1, 10–11, 43.

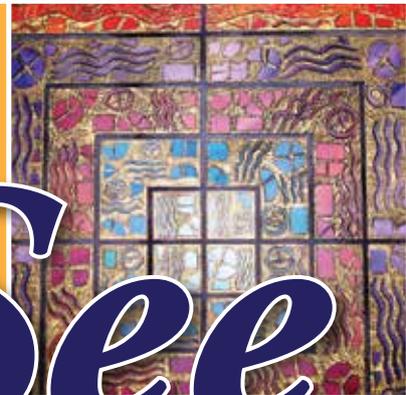
10. Felix Wilfred, 'Asian Christianity and Modernity: Forty Years after *Gaudium et Spes*', *East Asian Pastoral Review* 42 (2005) 1/2.



*In order to enter into the debate, Catholics need some knowledge of the major climate change issues.*



Dick Clark, Enviro-architecture



*See*

## Evidence for climate change

The Intergovernmental Panel on Climate Change (IPCC), working within the UN Framework on Climate Change, is the most widely accepted authoritative body reporting on climate-change science and politically possible responses by governments. The IPCC names humanity as the prime agent of rapid climate change, because of our use of fossil fuels, which has been constantly increasing since the industrial revolution. The panel has published four major reports, in 1990, 1995, 2001 and 2007, and specific reports on issues such as carbon capture and storage. The IPCC regularly gives three summaries,<sup>11</sup> which look at the physical science, at impacts, adaptation and vulnerability, and at mitigation.

Its conclusions carry ever-increasing levels of certainty, in many cases up to 95 per cent, which is the highest that science can give.

By definition, the scientific method can never offer 100 per cent certainty, which can be confusing for many commentators and readers and lead to false ideas about the need for 'balance' in reporting. Pursuing balance does not mean giving equal space to both authoritative bodies and fringe speculation. This false need for 'balance' in

reporting has often hidden both the degree of certainty that exists about climate change and the urgency required in addressing it.

General knowledge of climate systems and how they work is a necessary starting point for Catholics. The IPCC reports are but the latest in a series of authoritative reviews on climate change published since the 1960s. Recent climate change debate takes place within wider frames of reference, including the 1992 Earth Summit in Rio de Janeiro, the Kyoto Protocol 1996 and a new round of IPCC negotiations scheduled for 2012.<sup>12</sup> It is important to note, moreover, that in ratifying the Rio agreement in 1992 all signatories, including the USA and Australia, committed themselves *not to environmentally harm other nations*. All governments are aware of the facts and likely outcomes of climate change on the world, its peoples and biosphere; and they recognise the urgent need to respond in substantial ways.

In order to enter into the debate, Catholics need some knowledge of the major climate change issues. Australian data on climate change abounds (even though governments at all levels often do not listen to their own

scientists). Some sources of information are:

- Commonwealth government greenhouse and meteorological websites, which are excellent data sources<sup>13</sup>
- the national science research organisation, CSIRO. Its website can be a source of good information and its magazine, *ECOS*, is largely devoted to environmental issues including climate change.<sup>14</sup>
- state government websites, which carry more localised information<sup>15</sup>

All these bodies detail both problems and solutions, and work from the three major IPCC scenarios: the possibility of temperature rises of two, four and six degrees respectively. A two-degree rise seems inevitable and its consequences will be serious enough. Rises of four or six degrees will be catastrophic.<sup>16</sup> Government bodies identify the achievable outcomes as reducing greenhouse gas emissions 20 per cent by 2020 and 60 per cent by 2050 based on 1990 levels. The most desirable outcome is to become carbon neutral – that is, to achieve zero net emissions.

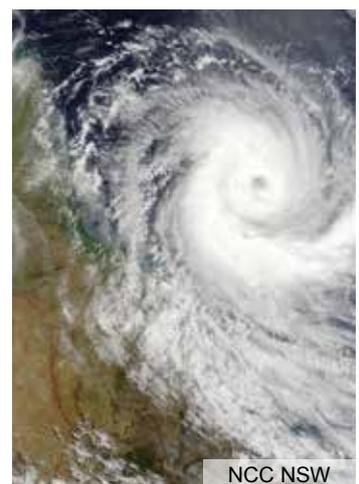
In addition to the websites of government bodies, there are sites, studies and campaigns run by business groups and NGOs. They add localised economic and community perspectives that are often broader than the scope of government agencies. More rooted in civil society than government agencies, non-government groups also conduct education campaigns for change

and, because of their flexible nature, may offer material that is more up-to-date.<sup>17</sup>

At the 2008 *Transforming Australia* Conference, convened by the Climate Action Network Australia (CANA), Professor David Karoly produced scientific findings that show that climate change effects the IPCC had predicted for 2030 are already emerging.<sup>18</sup> Professor Ove Hoegh-Guldberg reported similar evidence from his work as a marine scientist. Several speakers, especially Dr James Slezak from McKinsey and Company, argued that if government sets the right parameters, the Australian business sector can reduce local emissions by 60 per cent by 2020 with little economic impact. The predominant opinion of the CANA delegates was that there is an emergency that requires urgent action and that the government should set a goal of over 90 per cent climate-gas reductions by 2050 on 1990 figures.

Many delegates also argued that only a dramatic and urgent reduction in greenhouse gases can address related issues of social equity, food security and sustainable agriculture. ‘Interconnectedness’ is a foundational word in ecological science. It was also stated that Australia must not excuse itself from unilateral action, and is bound in justice to help the poorer nations of the world.

The world’s current financial meltdown is another clear example of connectedness, yet it is only a minor storm compared with the cyclone of climate change hanging over us.



11. [www.ipcc.ch](http://www.ipcc.ch).

12. Significantly, the leading emitters per capita of greenhouse gases, the USA and Australia, did not sign Kyoto. The new Prime Minister, Kevin Rudd, immediately ratified the Protocol at the 2007 IPCC meeting in Bali.

13. [www.bom.gov.au/climate](http://www.bom.gov.au/climate); [www.greenhouse.gov.au](http://www.greenhouse.gov.au).

14. <http://www.publish.csiro.au/?nid=214>.

15. Some examples are [www.greenhouse.nsw.gov.au](http://www.greenhouse.nsw.gov.au) and the Australian Local Government Association: [www.alga.asn.au](http://www.alga.asn.au).

16. A report on agriculture by ABARE Mar 2008 estimates that a 3.6 degree rise is likely.

17. David Spratt and Philip Sutton, *Climate Code Red*, Scribe Publications, Melbourne, 2008. See also [www.foe.org.au](http://www.foe.org.au); [www.climateinstitute.org.au](http://www.climateinstitute.org.au); [www.planteextinction.com](http://www.planteextinction.com); [www.acfonline.org.au](http://www.acfonline.org.au); [www.greenpeace.org.au](http://www.greenpeace.org.au); <http://www.panda.org/climate/>.

18. [www.cana.net.au](http://www.cana.net.au)

# Severity of climate change

## in Australia

The impacts of climate change in Australia have already begun and will be very severe even with a two-degree temperature rise – the most favourable scenario foreseen by the IPCC. It is important to remember that such effects, including temperatures, will vary from region to region so that in some areas impacts will be greater than Australian or world averages. Part of *seeing* is to be aware of diverse local scenarios.

Australia has quite distinct climate zones, ranging from the tropical north and the arid inland to the temperate east coasts and the Mediterranean southern coast. The continent is subject both to cyclones and

blizzards, and rainfall occurs once in ten years in some places and over two metres a year in others. Australia also has responsibilities for a long coastline, a continental shelf, remote ocean islands and, under UN mandate, a large section of the Antarctic. Already temperature changes in the Antarctic far exceed average world rises. This variation from region to region is paralleled in the northern hemisphere.

For Australia and its territories, the major physical impacts of climate change will affect water, temperature, oceans, infrastructure, biodiversity, food production and human health (see the accompanying table).



NCC NSW



Mt Annan Botanic Gardens



Sculpture by the Sea

## Physical effects of climate change on Australia

Water	There will be less rain in the south but more in the tropics, more intense storms, cyclones as far south as Sydney, more severe droughts and flash floods, and a decline in ground water.
Temperatures	Higher temperatures will result in quickly-drying soil, more arid lands, more intense and frequent bush fires, shrinking snowfields and high temperature increases towards the South Pole.
Oceans	Sea-levels will rise and encroach on coastal land. Oceans will become increasingly acidified, which retards the growth of corals and shellfish; there will be coral bleaching, coastal erosion and migration or death of fish species and sea forests.
Infrastructure	Energy demand will increase; there will be road and rail disruptions and dwindling water supply. Existing building designs and disaster response capabilities will prove inadequate.
Biodiversity	Extinction of species will occur as habitat changes; there will be major wetlands loss, limited time for adaptation, broken migration corridors, loss of key ecosystems and invasive species of plants, animals, birds and marine organisms.
Food production	Planting and fruit budding seasons will change; there will be declining production in the irrigated Murray-Darling 'bread basket', less livestock carrying capacity and failures of industrial agricultural models. Research infrastructure may prove misdirected.
Health	There will be more tropical disease in northern environments and disease will travel further south; there will be heat-stress and food shortages, with less dietary variety and nutritional value.

# Three seminal Australian books on climate change

A major obstacle to *seeing* is ignorance. Sadly, ignorance is to be found not only among parliamentarians and in the media: some religious leaders, too, do not believe what Vatican II said about taking life in this world seriously by reading ‘the signs of the times’. Some Church leadership at the pastoral level seems blind to fundamental world issues, as evidenced by the content of many Sunday homilies.

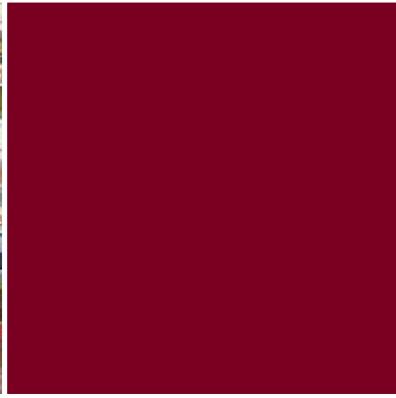
Three books explain well the situation regarding climate change in Australia and its implications for the future of the nation:

Tim Flannery, *The Weather Makers: The history and future impact of climate change* (Text, 2005). Tim’s seminal book traces climate history through three billion years of paleo-evidence, explains natural cycles and examines the options for renewable energy sources. His book also opens up spiritual messages for the discerning heart.

Mark Diesendorf, *Greenhouse Solutions with Sustainable Energy* (UNSW Press, 2007). Mark presents a practical, science-based and detailed way to act now, and shows how available renewable energy sources could supply base power equal to that of coal-fired generation. Diesendorf’s work is based on up-to-date science and, significantly, is remarkably hopeful: it maps achievable ways forward – a positive for any believer.

Guy Pearse, *High & Dry: John Howard, climate change and the selling of Australia’s future* (Penguin Viking, 2007). Guy Pearse was a Liberal Party insider for more than a decade. From a political and economic viewpoint, his work amplifies Flannery’s scientific work and the alternative energy question addressed by Diesendorf. He exposes the lies Australian voters have been sold, and raises the alarm about the urgent need for an adequate response to climate change and what is at stake as it takes effect.





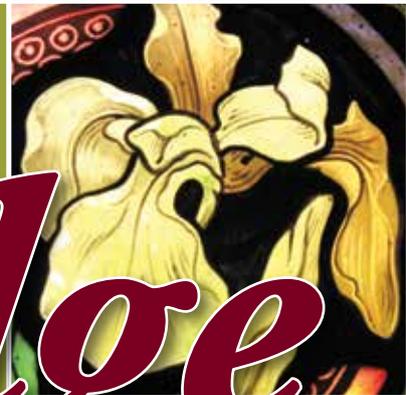
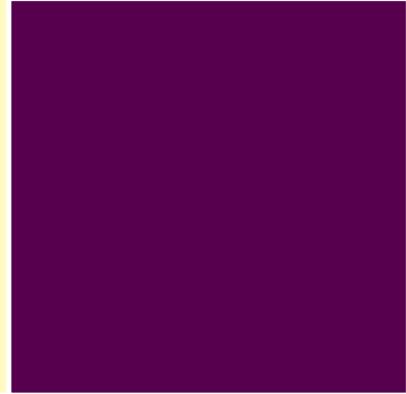
*Catholic judgment must be hard-nosed and rooted in reality if it is to present a realistic hope to the world and ourselves.*



Hunter Botanic Gardens



Miriam Pepper, Climate Institute



# Judge

## Traditional faith resources help in making a Catholic response

Max Weber wrote that religion can either reinforce the status quo or challenge it to transformation. Catholics can choose to challenge – both to be assertive and to make judgments regarding climate change. They can assert the positive role of Earth in the Christian story – salvation, revelation, incarnation, sacramental signs, mysticism and the promise of life to the full and fulfilment for all creation. The *Catechism of the Catholic Church* explores the place of creation in God’s providence.<sup>19</sup> *The Compendium of Catholic Social Teaching* has a whole section on environmental care, which updates Catholic social principles to embrace the ecological dimension and identify it as ‘integral to faith’.<sup>20</sup>

Further, the Catechism explicitly rejects past Scriptural interpretations that justified ideas of unrestrained domination of the environment, declares as erroneous

the utilitarian reduction of nature to something to be manipulated and exploited, and says there is an ever-greater need to respect the transcendent dimension of creation itself.<sup>21</sup> Such social teaching is a significant move away from an exclusively human-centred perspective.

Modern theologians, from Father Teilhard de Chardin SJ to Father Thomas Berry CP, have been taking scientific findings seriously and developing a positive view of Earth’s role. More recently, a number of books by Adelaide-based diocesan priest Father Denis Edwards detail how environmental concern is rooted in the Catholic tradition. Theologians such as Rosemary Ruether establish eco-feminist insights within that same Catholic tradition. There is ample material in Catholic tradition to meditate on and discern faith-filled responses regarding climate change.<sup>22</sup>

Catholic judgment must be hard-nosed and rooted in reality if it is to present a realistic hope to the world and ourselves. Pope Benedict's 2007 Encyclical *Spe Salvi*<sup>23</sup> says genuine hope is rooted in human history and not to be found in trying to hide in 'a private corner of happiness'. Genuine hope-filled and enlightened ways forward emerge when humanity purges itself of the superficial and comfortable, and frees itself from hidden lies. The Pope promises that only prayer worthy of God's designs will achieve realistic hope for the world.

A modern Catholic spiritual journey not only embraces the natural world, including the reality of climate change, but revels in the mystery it reveals. Images of God leading the dance and waiting on us at the heavenly banquet are not out of place. When launching Catholic Earthcare Australia, Archbishop John Bathersby said:

*The entire life of Christians is an exploration into Christ. Each generation pushes back ever so slightly the envelope of his mystery ... One of the most significant developments in Catholic understanding of the Christian mission in more recent times is its embrace of creation in all its beauty and vitality.*

The Australian Catholic Bishops' 2005 position paper on Climate Change<sup>24</sup> said:

*We believe that the Earth is a gift from God, valuable in itself, and that human life is irrevocably linked with the Earth. Catholic faith believes that the cosmos displays the goodness, beauty and power of God.*

Gaining an expanded vision of Earth as part of the mystery of salvation is a frightening thing. Not only does our responsibility as the most conscious beings within creation become more onerous, but the intimate connection between humanity and Earth opens up realms of mystery that are also spiritually frightening.<sup>25</sup> The incarnation of Jesus has deep implications as the whole cosmos is revealed as holy and sacramental. 'Matter is a risk taken by the spirit' wrote Donald Nicholl.<sup>26</sup>

The mystery of God immanent in Earth makes lesser spiritual aims seem paltry. Pope John Paul II, in November 2000, said: 'Within the movement of nature, tranquil and silent but rich in life, there continues to palpitate the original delight of the Creator.' Pope Benedict XVI wrote in his 2008 World Day of Peace Message: 'Earth is the human family's common home.'

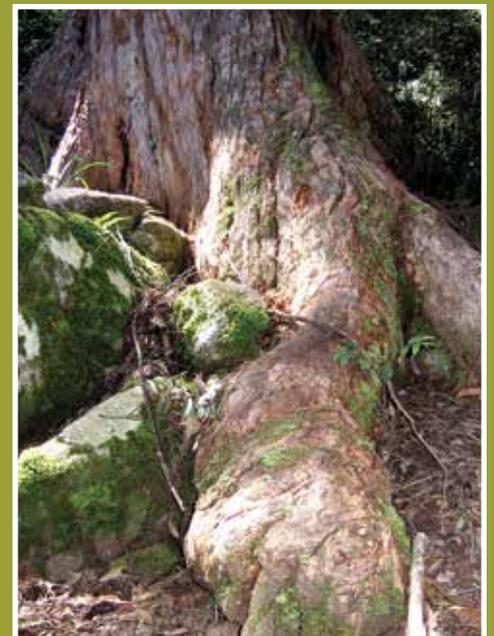
## What is prayer?

Saint Augustine, in a homily on the First Letter of John, describes very beautifully the intimate relationship between prayer and hope. He defines prayer as an exercise of desire. Man was created for greatness – for God himself; he was created to be filled by God. But his heart is too small for the greatness to which it is destined. It must be stretched ... To pray is not to step outside history and withdraw to our own private corner of happiness.

When we pray properly we undergo a process of inner purification which opens us up to God and thus to our fellow human beings as well. In prayer we must learn what we can truly ask of God – what is worthy of God.

We must learn that we cannot pray against others. We must learn that we cannot ask for the superficial and comfortable things that we desire at this moment – that meagre, misplaced hope that leads us away from God. We must learn to purify our desires and our hopes. We must free ourselves from the hidden lies with which we deceive ourselves ... Yet my encounter with God awakens my conscience in such a way that it no longer aims at self-justification, and is no longer a mere reflection of me and those of my contemporaries who shape my thinking, but it becomes a capacity for listening to the Good itself.

Pope Benedict XVI, Encyclical *Spe Salvi* 2007 no 33.



19. Multiple entries in the *Catechism's* index link the material and the spiritual worlds in an integral way.

20. To quote the words of Pope John Paul II, World Day of Peace Message, 1990.

21. *Compendium of Catholic Social Teaching*, St Pauls, Homebush, 2004, Chapter 10, specifically Nos. 461–463.

22. Denis Edwards, *The God of Evolution: A Trinitarian Theology*, Paulist Press, New York, 1999. Teilhard's writings on the relationship of science and religion, on mysticism and other aspects are explored in Celia Deane-Drummond (ed.), *Pierre Teilhard de Chardin on People and Planet*, Equinox, UK, 2006.

23. Pope Benedict XVI, *Spe Salvi* (30 November 2007), no. 33.

24. [www.catholicearthcareoz.org.au](http://www.catholicearthcareoz.org.au)

25. Ecumenical Group, *Liturgy in the Forest*, Melbourne 1995.

26. *The Tablet*, 5 Jul 1997

# New interpretations

## of scripture



**‘Even to continue speaking of nature as separate from humanity in some way fails to appreciate a basic insight of ecology - connectedness.’**

Scripture has insights into humanity’s relationship with Earth as one of the twin pillars, along with the living Tradition, on which Catholic faith stands. Scripture witnesses to God’s wisdom imbedded in the Earth: *If you would learn more, ask the cattle, seek information from the birds of the air* (Job 12:7; 38:2). Modern biblical scholarship is rediscovering Earth as a *voice of the Holy Spirit*. Pope John Paul II called creation the first revelation.<sup>27</sup> Much of the thanks for rediscovering the voice of Earth in Scripture must go to women theologians such as Rosemary Ruether. Australia can also be proud of Adelaide’s Earth Bible Project team, led by Rev. Dr Norman Habel, which has further developed this insight. To carry this voice into communal prayer, Habel has developed a lectionary for a *Season of Creation* over the four Sundays leading up to the feast day of St Francis of Assisi.<sup>28</sup>

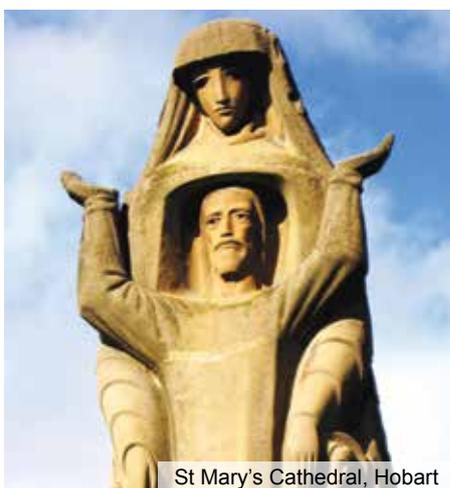
Scripture presents the language of prophecy as the voice of God. In our times, Earth has shown itself as loudly prophetic. In devastating New Orleans, Hurricane Katrina was prophetic in showing the consequences of human arrogance – local arrogance in clearing the mangroves and cutting canals, which opened the city to disaster; global arrogance in increasing greenhouse

gases that heat shallow waters like the Gulf of Mexico and increase the intensity of hurricanes. Other voices of prophet Earth are the melting of heat-reflecting ice in the Arctic waters; the rapid decline of glaciers in the Himalayas and Andes, which feed rivers that support billions of people; the melting of land-based ice sheets in the Antarctic; and droughts in Australia. *Earth’s prophetic messages are a constant source of prayerful reflection.*

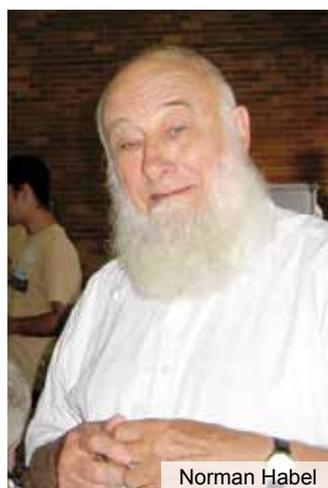
Even to continue speaking of nature as separate from humanity in some way fails to appreciate a basic insight of ecology – connectedness. Humans are a part of nature, a part of creation. In the context of rapid climate change, a new respect for nature gives deeper meaning to Scripture’s stricture that Earth belongs to God and humans are accountable for its use – and abuse.

This new understanding of Scriptural truths about the human-earth relationship impels Catholics not only to turn away from wasteful personal and institutional economic plans and exploitative life-styles, but to negotiate a new relationship with the sciences. A prayer asking forgiveness of God, scientists and much-maligned environmentalists would not be out of place.

Columban missionary Father Sean McDonagh writes

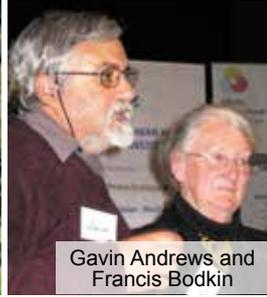


St Mary’s Cathedral, Hobart



Norman Habel





Gavin Andrews and Francis Bodkin



Peter Woodruff

that climate change is not just one environmental problem among others; it is foundational.<sup>29</sup> A past weakness in Catholic social teaching has been its near-exclusive focus on the human condition – a focus that can limit analysis and channel the solutions offered.<sup>30</sup> McDonagh identifies climate change as a priority mission issue for the Church because it threatens all life on this planet – human, animal and plant alike. Life is a seamless garment. His book details the major climate change challenges for believers, but he is sad that the responses by the Christian churches so far have been ‘a little late and a little breathless’.<sup>31</sup> McDonagh says that these churches are now called to make a credible response to the science of climate change. Neglect would be a sin.<sup>32</sup>

In previous books on Catholic faith and the environment, Father McDonagh has detailed the spiritual insights about the land that he gained from working over several decades as a missionary among the T’boli tribal people of the southern Philippines. Such spirituality resonates with tribal peoples around the world and with the biblical

tradition, argues Columban Peter Woodruff.<sup>33</sup>

These insights can help Australians become more receptive to the spirituality and ethics of Australian Indigenous peoples. Their respect for the land from which they spring, and which is their mother, is the basis for their attitudes of living lightly on the land where they have survived for at least 60,000 years. Aboriginal spirituality has been explored by Norman Habel (it has helped him in creating his *Season of Creation*) and Father Eugene Stockton writing on spirituality.<sup>34</sup>



Sculpture by the Sea

27. John Paul II Audience 30 Jan 2002: ‘For those who have attentive ears and unveiled eyes, creation is like a first revelation, which has its own eloquent language: It is almost like another sacred book whose letters are represented by the multitude of creatures present in the universe.’  
 28. Norman C Habel, [www.seasonofcreation.com](http://www.seasonofcreation.com).  
 29. See *Climate Change: the challenge to us all* (see note 2 above).  
 30. Charles Rue, *Catholics and Nature*, Catholic Social Justice Series No. 57, Australian Catholic Social Justice Council, 2006.  
 31. A phrase attributed to Bernard Lonergan SJ.  
 32. Michael S Northcott, *A Moral Climate: the ethics of global warming*, Orbis Books, New York, 2007, argues that ‘Global warming is the earth’s judgment on the global market empire, and on the heedless consumption it fosters’.  
 33. Peter Woodruff, ‘A Communal Sense of Life: a key cultural value of the rural Andes and its impact on life in the district of Independencia, Lima’, thesis, LaTrobe University 2007.  
 34. Eugene Stockton, *The Aboriginal Gift: Spirituality for a nation*, Millennium Books, Sydney, 1995.

## Some Catholic principles for facing environmental issues

- the right of all people to a safe environment
- consideration of the common good
- dismantling the social structures of sin
- the concept of authentic development as avoiding super development<sup>38</sup>
- the precautionary principle<sup>39</sup>
- the preferential option for the poor
- the rights of future generations
- fair distribution of the costs of abating the effects of climate change
- solidarity with developing countries by sharing modern technology<sup>40</sup>
- welcome for environmental refugees<sup>41</sup>
- respect for the wider earth community by preserving biodiversity.<sup>42</sup>



Franciscans, Campbelltown

## Catholic environmental ethical principles



Columban Centre Bangor

People and governments, when facing climate change, need to go beyond pragmatic knee-jerk reactions to create a vision, make plans and adopt strategies based on principles.<sup>35</sup> Creating such a vision does not just happen: it must be cultivated in an organic way, based upon what we value and what is at stake. Such a values-based vision can be systematically explained by ethical reasoning and expressed as principles. These principles help clarify the values that Catholics hold, and form a basis for cultivating moral integrity.

The 1990 World Day of Peace Message of Pope John Paul II was foundational in establishing a list of principles for facing environmental issues (see box). This list has since been amplified and systematised in the *Catechism* and the *Compendium of Social Teaching*, and formed the basis for the Australian bishops' 2005 Position Paper, which specifically presented a set of principles for judging climate change both locally and globally.<sup>36</sup>

Economic constraints and poverty mean that more and more people are forced to move, either internally or across national borders, just to survive. One symptom of this growing trend is trafficking of people as foreign labour and sex workers.<sup>37</sup> The movement of peoples will increase as the impact of climate change grows unless poorer countries can sustain themselves. A

35. Daniel Cowdin, 'Environmental Ethics', *Theological Studies* Mar 2008, pp. 165–84. He compares the approaches to environmental ethics of Hollenback (ecologically enlightened humanism), John Hart (ecological common good), Jame Schaefer (ecological beauty) and other writers. He evaluates their respective spiritualities and bases for action in the public forum, including the place of principles.

36. Australian Catholic Bishops' *Climate Change Conference* Nov 2005 [www.catholicearthcareoz.net](http://www.catholicearthcareoz.net). *Catechism of the Catholic Church*, Nos. 2422–23, 1981, 2403, 2415; *Compendium* Nos. 26, 170, 454.

37. See [www.catalyst.org.au](http://www.catalyst.org.au); [www.antislavery.org.au](http://www.antislavery.org.au).

38. John Paul II, *Centesimus Annus* (1991) No 35–40; *Sollicitudo Rei Socialis* (1987) Nos 28–34; *Redemptor Hominis* (1979) No 8, 55, 90, 92.

39. *The Top Ten World Rivers at Risk* C M Wong et al, WWF, Mar 2007; Inland Rivers Network NSW [www.irnsw.org.au](http://www.irnsw.org.au)

40. Pope John Paul II: 'Respect for nature by everyone, a policy of openness to immigrants, the cancellation or significant reduction of the debt of poorer nations, the promotion of peace through dialogue and negotiation, the primacy of the rule of law: these are the priorities which the leaders of the developed nations cannot disregard.' Speech to President George Bush, 23 Jul 2001, No 3.

41. See for example *Human Tide: the real migration crisis*, Christian Aid, May 2007: [www.christianaid.org.au](http://www.christianaid.org.au). See also [www.iiied.org/pubs](http://www.iiied.org/pubs); [www.earthprint.com](http://www.earthprint.com); *Sea Levels in Developing Countries* WWF Policy Paper, Feb 2007. Some islands, for example in Australia's Torres Strait and PNG's Carteret islands, have started to become submerged: [www.foe.org.au](http://www.foe.org.au).

42. Richard Macey, *SMH* 4 Aug 2007. 30 kms of sea-weed forest off Sydney has been lost; Sean McDonagh *Death of Life: The horror of extinction*, The Columba Press, 2004.

strong Catholic moral position linking climate change and holistic sustainable development was presented in 2007 by Archbishop Migliore, speaking at the UN as the Vatican's official representative:

*While the duty to protect the environment should not be considered in opposition to development, it must not be sacrificed on the altar of economic development. My delegation believes that, at its core, the environmental crisis is a moral challenge ... It is not hard to see how issues of environmental protection, models of development, social equity and each one's share of the responsibility to care for the environment are inextricably intertwined.*<sup>43</sup>

An emerging topic when considering climate change is human population and the human ecological footprint. This contentious issue is often an 'elephant in the room' that Catholics try to ignore – not only because of the Church's stance on abortion and family planning, but also because many pastors in developed countries fear to confront their parishioners with questions about their high levels of consumption.

Debate on limiting population numbers also focuses the debate on levels of individual consumption and super development and demonstrates the relevance of Catholic principles. Pressure on Earth's living systems arises from a combination of population numbers and standards of living. Measuring a nation's ecological footprint (hectares needed to support a person)

produces some surprising figures. In absolute terms of impact on Earth, Australia's population requires about eight hectares per person; India's population requires about 0.8 hectares. The Australian lifestyle has 10 times the ecological impact per person.<sup>44</sup> Pope John Paul II argued:

*A more responsible approach to population issues is the promotion of 'authentic development', which represents a balanced view of human progress and includes respect for nature and social well-being.*<sup>45</sup>

A major principle in Catholic teaching is that *peace issues are integrally connected with justice*. Climate change poses a challenge for world peace and must be a part of Church prayer for peace and peace building. Conflict is likely to arise as environmental refugees increasingly cross borders. Pacific island refugees are already entering Australia, but their numbers are tiny when compared with populations living on threatened Asian river delta lands – as the recent cyclone in Burma demonstrated with terrible clarity. Sir Jock Stirrup, UK Chief of the Defence Staff, said in December 2006:

*Climate change and growing competition for scarce resources are together likely to increase the incidence of humanitarian crisis. The spread of desert regions, a scarcity of water, coastal erosion, declining arable land, damage to infrastructure from extreme weather: all could undermine security.*<sup>46</sup>



Catholic Earthcare Climate Change Conference

43. Archbishop Celestino Migliore, address at the 15th session of the United Nations Commission on Sustainable Development, 10 May 2007.

44. See [www.livingplanet.org](http://www.livingplanet.org).

45. *Sollicitudo Rei Socialis* (On Social Concern) No. 8

46. Air Chief Marshal Sir Jock Stirrup, speech to Royal United Service Institute, 4 Dec 2006, available at <http://www.mod.uk/DefenceInternet/AboutDefence/People/Speeches/ChiefStaff/20061204RusiChristmasLecture.htm>.

# Morally questionable 'solutions' to climate change

In the search for solutions to climate change, a number of proposals have been made that have themselves been the subject of debate. These include issues such as nuclear energy and bio-fuels. At first such debates seem to concern practical issues on which Catholic teaching has nothing to say. However, elements within them

raise moral questions and demand at least some partial judgments using Catholic values and social principles.

All too often, unfortunately, urgent questions are met with head-in-the-sand attitudes while misleading arguments promoted by PR companies have undermined progress.

## *Argument*

***A strong economy is the best protection against the climate change and will be threatened by the like of carbon taxes. We will be able to afford mitigation measures, if needed, when new technologies are developed.***

## *Response*

If ecological systems are compromised, water and food production will be undermined so that even the richest nations will eventually lose the ecological basis of their prosperity while poor nations will become radically poor.<sup>47</sup> Sir Nicholas Stern and the Garnaut Reviews have shown that it would be cheaper to act now on climate change than to wait.<sup>48</sup> To delay action for economic reasons is not only erroneous economic thinking; it would also put an unjust burden on future generations and further compromise Earth's ecology, the basis for all life.



Canowindra Museum



### *Argument*

***Technologies connected with 'clean-coal' technology, including carbon capture and storage, must be given priority because coal will be the major source of energy into the future.***

### *Response*

This argument is based on technologies that have yet to be scaled up, an unfair assessment of existing alternatives and unfair allocation of subsidies or research and development grants. The relevant IPCC report states that, in itself, carbon capture from coal burning holds many as yet unresolved risks.<sup>49</sup> While 'clean coal' technologies may have a place in future energy supplies, they are not to be confused with implementing greater efficiency in existing plants. Neither must clean coal become a distraction from a more comprehensive solution, including development of better agricultural systems that will capture carbon. European economies such as Germany have shown that there is a long-term prospect of job creation as part of 'green development'.<sup>50</sup>

### *Argument*

***Bio-fuels will fill the gap left by fossil fuels and preserve our way of life.***

### *Response*

While bio-fuels will have a place in a mix of new fuel sources, especially in the subsistence farming of poorer countries, they raise many moral questions. Bio-fuel production diverts land away from food production, as evidenced by the world-wide food shortage and rising grain prices.<sup>51</sup> It will cause greater ecological destruction as rainforests are cleared and biodiversity is lost. However, there are two arguments for the use of bio-fuel at the local level:

- It can be produced on-farm, thus avoiding the use of fuel in transporting fuel.
- The technology can help poor farmers become more self sufficient.

A disturbing element in the bio-fuel debate is the proposed use of genetic manipulation (GM) technologies in bio-crops to increase productivity. Columban Mission has campaigned on GM issues for a decade because of dangers inherent in the application of GM technology.<sup>52</sup>

There is no simple answer to the question of how bio-fuel should fit into a projected mix of alternative technologies and what type of fuel it should be. Prudence is needed.

47. Proceedings of the Columban Society General Assembly 1988.

48. [www.garnautreview.org.au](http://www.garnautreview.org.au).

49. IPCC *Special Report on Carbon Dioxide Capture and Storage* (CCS) 2005.

50. *World Watch Report: Green Jobs* 2008, New York: [www.worldwatch.org](http://www.worldwatch.org).

51. Eric Holtz-Gimenez 'Peasants, Higher Food Prices – and a Crutch for the Petrol Economy' *Le Monde Diplomatique* 03 Jul 2007; *Seedling* Jul 2007, [www.grain.org](http://www.grain.org); Biodiesel Association of Australia.

52. See Charles Rue, *Unjust Genes* (DVD), Columban Mission Centre, Melbourne, 2006; [www.madge.org/digests.php](http://www.madge.org/digests.php).

### Argument

***The introduction of carbon credits and carbon trading will let the markets solve the problem of climate change.***<sup>53</sup>

### Response

*The energy problem and other environmental problems exemplify gross market failure.* Environmental degradation caused by 'economic externalities' have had serious economic, social, and emotional effects and terrible impacts on Earth's biodiversity.

While the mechanisms of carbon trading are complex, the essential first step is to put a cap on emissions and a real price on carbon.<sup>54</sup> The risks of profiteering in carbon trading may lead to a credibility gap for its promoters. Water trading in Australia offers salutary lessons.

In July 2008 the Federal Government released its Green Paper for discussion on the rules for cap-and-trade. It was presented as a 'carbon pollution reduction' measure, but is a cost distribution element that conceals the need for legislating real caps.<sup>55</sup> A community survey indicates that the Green Paper and subsequent White Paper are not radical enough for voters and, significantly, Australia should be prepared to 'go it alone' without waiting for the USA, China and the rest of the world.<sup>56</sup> Trading needs to be accompanied by immediate carbon reduction measures, such as more public transport and refits for houses. These will help poorer people actually reduce their carbon use, and hence their energy bills.<sup>57</sup>

### Argument

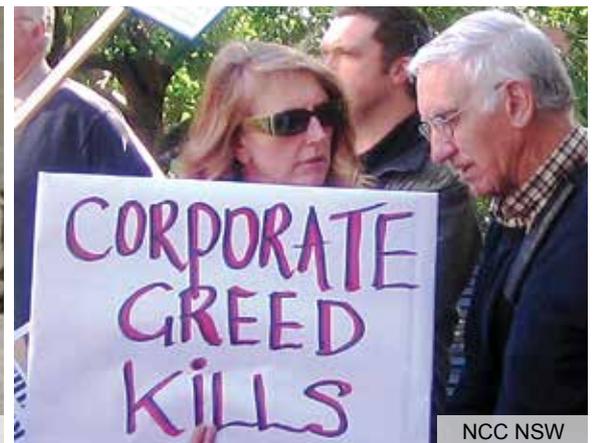
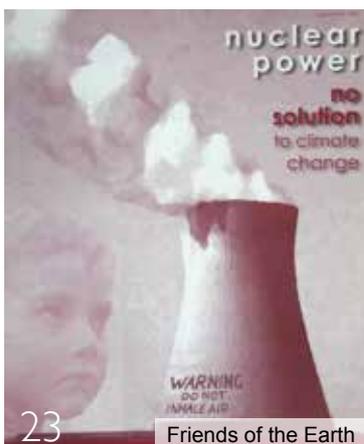
***Nuclear energy will be a clean technological solution to energy needs.***

### Response

In Australia, nuclear power generation is technologically at least fifteen years away. It also carries with it many risks, especially for Australia. A few of these risks are:

- health issues for workers
- the possibility of contribution to nuclear arms proliferation and terrorism
- high economic costs of production and decommissioning
- high research costs.

The nuclear power option has been explored by Catholic and other groups.<sup>58</sup> The debate about the nuclear option for Australia may be no more than a distraction to delay alternative action. Since high-grade uranium ore stocks worldwide may be depleted within 40 years, perhaps Australia should lead the way now in promoting proven renewable alternatives to the nuclear option.



# Some initiatives

by the Church

In 2002, the Australian Catholic bishops established Catholic Earthcare Australia (CEA) as their agency on environmental matters. The environment was also the theme of *A New Earth* – their Social Justice Sunday Statement that year.<sup>59</sup> In November 2005, CEA organised a three-day Conference on Climate Change and presented a position paper for discussion.<sup>60</sup> More than 300 delegates – lay and clerical, secular and ecumenical – came together, including international and local scientists, theologians and activists. The topics of papers ranged from cosmology to the effects of climate change on human health.<sup>61</sup>

The 2005 climate conference must be set in the context of the work of two national Catholic agencies of the Catholic Bishops Conference: Caritas Australia (formerly Australian Catholic Relief) and the Australian Catholic Social Justice Council (ACSJC). They have fostered eco-awareness since the 1990s as a background to their overseas relief and social justice work, and sought to address causes and not just symptoms. Prayer resources on the environment have been an important part of the materials they have made available to parishes and schools.

One significant move towards education for the environment

has been *On Holy Ground*, co-authored by Catholic Education Offices and Catholic Earthcare Australia in 2006. This document presents a faith-based program for reflection on environmental issues, including climate change. This program has been localised in some states.<sup>62</sup> It is also backed up by school sustainability audits and development programs (developed in cooperation with government agencies) and by dedicated Catholic environmental centres such as those in the Townsville and Bendigo dioceses.

Catholic school children are already receiving positive education for the environment, but it needs to be more vigorously pursued in adult Catholic education programs, centres and universities. The appropriate formation of teachers in Catholic schools to connect environment and faith is a pressing issue – though some eco-theology courses have been offered by the Broken Bay Institute, Catholic Institute of Sydney, Adelaide College of Divinity and Australian Catholic University.

Some religious orders in Australia, like others worldwide, have taken a lead in implementing energy restraint within their institutional houses.<sup>63</sup> They have also initiated Church structural responses such as



53. [www.carbontradewatch.org](http://www.carbontradewatch.org)

54. Clive Hamilton of The Australia Institute writes of 7 tests for effective carbon trading including putting a real price on carbon *SMH* 31 May 2007.

55. Stephanie Peatling, Ben Cubby, *SMH* 17 Jul 2008

56. *SMH* 21 July 08. Cf. The reaction of Prof. Garnaut *SMH* 19-21 Dec 2008 and *The Australian* 20-21 Dec 2008

57. Michael Raper, interviewed on ABC Radio National *AM*, 17 Jul 2008.

58. These groups include school students at Lewisham Catholic High. Other resources include Luke Vaughan for Catholic Social Services Victoria and the Melbourne Catholic Commission for JDP in collaboration with the Victorian Council of Churches, *Nuclear Power: Cure or Curse? A Discussion Paper*, Nov. 2007 [www.css.org.au](http://www.css.org.au); Medical Association for Prevention of War; [www.mapw.org.au](http://www.mapw.org.au); *Nuclear Power: no solution to climate change*, 2006, sponsored by several environmental groups and updated; *Australia and the Nuclear Option*, May 2007 [www.foe.org.au](http://www.foe.org.au); [www.nuclearspin.org](http://www.nuclearspin.org).

59. Australian Catholic Bishops Conference, *A New Earth: The environmental challenge*, Australian Catholic Social Justice Council, Sydney 2002. Available at <http://catholicearthcareoz.net/socialjustice.html>.

60. [http://www.catholicearthcareoz.net/POSITION\\_PAPER.html](http://www.catholicearthcareoz.net/POSITION_PAPER.html). Charles Rue was the principal drafter of the position paper.

61. The topic of cosmology excited much interest at the Canberra conference. The Templeton Prize, awarded to scientists who help bridge the gap between science and religion, was won in 2008 by a Polish Catholic priest, Father Michal Heller, specifically for his work on cosmology.

62. [www.onhollyground.edu.au](http://www.onhollyground.edu.au); [www.catholicearthcareoz.net](http://www.catholicearthcareoz.net).

63. Religious Leaders, Rome, *Global Warming 2002* [www.ofm-jpic.org/globalwarming](http://www.ofm-jpic.org/globalwarming).

64. Brigidine Sisters, Good Samaritan Sisters, Christian Brothers, Presentation Sisters, Mercy Sisters, Good Shepherd Sisters, Franciscans and other Religious in Australia.

## 'Every encounter with another person or culture is capable of revealing potentialities of the Gospel ...'



ecological education centres and retreat houses, and involved lay people in the process.<sup>64</sup> Significantly, their work often focuses on personal commitment in line with Pope John Paul's call for ecological conversion and ecological vocation.

Some Catholic groups have initiated faith-sharing and social activism on climate change by bringing together believers from many faiths. Since 1993, ecumenical reflection and calls for action on climate change have been coordinated by the World Council of Churches (WCC).<sup>65</sup> 'Climate Change and the Church's Social Teaching' was addressed ecumenically in the UK Operation Noah project in 2008.<sup>66</sup> In Sydney, the Columban Centre for Peace, Ecology and Justice started an inter-faith group, Faith and Ecology Network (FEN), in 2003; in June 2007, it issued a Statement on Climate Change. Aboriginal story-teller Frances Bodkin has been an active member of the group from the beginning. (Notably, the federal government has a

dedicated website that brings together Aboriginal stories on climate events and natural signs that predate white history. Much localised Indigenous weather knowledge has been collected, dating back more than ten thousand years.)

The increasing number of contacts between secular and faith-based groups witness to mutual respect and cooperation as a significant development in dialogue. Through dialogue, secular and religious people are learning from each other in pursuit of ecological goals that go beyond the dreams and abilities of either side.<sup>67</sup> In 2006, the Climate Institute, a secular Sydney NGO, published a collection of Climate Change Statements from sixteen religious traditions.<sup>68</sup> A recent Vatican note on dialogue states:

*Every encounter with another person or culture is capable of revealing potentialities of the Gospel which hitherto may not have been fully explicit and which will enrich the life of Christians and the Church.*<sup>69</sup>

The Holy See has set an example by implementing a program to put the Vatican City on a more carbon-friendly basis.<sup>70</sup> The churches, including the Catholic Church, control significant resources in the non-government sector. If they immediately audit their enterprises with the aim of reducing global warming gas emissions, and act to implement changes such as water saving, solar hot water or generating photo-voltaic power, they can offer a credible example of addressing ecological issues.<sup>71</sup>



65. WCC, *Time of Peril: Test of Faith* 1993 and updated. Canadian Rev David Hallman presented a paper at CEA's *Climate Change Conference* in Canberra 2005.

66. [www.operationnoah.org/resources/study-guides](http://www.operationnoah.org/resources/study-guides).

67. John Paul II, *Mission of the Redeemer*, Nos. 56–58.

68. [www.climateinstitute.org.au](http://www.climateinstitute.org.au).

69. Congregation for the Doctrine of the Faith, 'The Missionary Mandate belongs to the very nature of the Church', 14 Dec 2007, No. 7.

70. Francis Rocca *The Holy See is Going Green: Solar and Offsets* [www.religiousnews.com](http://www.religiousnews.com).

71. Michael Kelly of Church Resources at the Jesuit Lenten Series 2008, North Sydney. Church Resources sells green power and conducts energy audits. <http://www.churchresources.com.au>

72. Australian State of the Environment Committee, *Australia: State of the environment 2001*, Commonwealth of Australia (2001); <http://www.environment.gov.au/soe/2001/publications/report/pubs/soe2001.pdf>.

73. <http://www.phaa.net.au/documents/August07.pdf> [www.ssfa.org.au](http://www.ssfa.org.au).

74. Lisa Murray, 'Ball's business bonanza' *SMH* 15 Dec 2007.

75. Dr Chris Riedy of the Institute of Sustainable Futures, UNSW, has written extensively on transport options, as has Dr Paul Mees, formerly of Melbourne University.

76. Ethical Travel: [www.newint.org](http://www.newint.org).

77. Australian Ethical Investment, [www.austethical.com.au](http://www.austethical.com.au); Corporate Watch, [www.corporatewatch.org.uk](http://www.corporatewatch.org.uk); UK Report to the Prime Minister 2006 on the Economic effects of Climate Change.

78. <http://architecture.com.au/> <http://gbcaus.org/> <http://abgr.com.au/rating>

# Identifying key sectors

## for individual and community action

People often find it easier to focus on one area of action and band together with others for mutual encouragement. If we believe in a common human family, we must believe that God is inspiring people in all walks of life and at every level to do what they can for the common good in addressing climate change. An independent report to the Minister for the Environment, *State of the Environment Australia 2001*, stated:

*The key to Australia's sustainable future lies in ourselves, our attitudes towards the environment, our heritage and each other. Positive change can be achieved when people see options for improvement in their quality of life and opportunities for their children and grandchildren. This change is accelerated when public awareness is translated into political action that influences the activities of our society to care for our country.*<sup>72</sup>

While action on climate change in one's personal life is not enough by itself, individual action can influence the community. Each of us can assess what we can do within our own circumstances. Individual action in our workplace and in our sector of life is difficult and excuses are easy to find: 'It's not my decision'; 'I don't have to pay'; and so forth. However, personal commitment to individual witness and to lobbying within one's sphere of influence will have a major effect on the shape and scope of action on climate change. Catholics in Australia have a proud history of taking the initiative in addressing social problems. This involvement has formed them well to take on the climate challenge if they have the vision and the will. Prayers for the courage to act on a new vision are needed.

Some areas in which we can take action are listed in the table below.

### Areas in which we can take ecological action:

Consumers	Australians can send powerful signals to the market by their <i>climate-friendly choice of goods and services</i> .
Food sector	<i>Many aspects of food production affect greenhouse gas emissions. A new consciousness is emerging about the amount of food eaten or wasted, its packaging and source, the distance it is transported, and whether it is meat-based or vegetarian, industrial or home-grown.</i> <sup>73</sup>
Home owners	As housing is one of the largest sources of greenhouse gas emissions, the <i>choice of home size and energy efficiency</i> is influencing the choices some builders are offering.
Business people	Ethical investment has increased over a decade and business now appreciates that there is money to be made by investing in alternative energy. <sup>74</sup>
Voters	All three levels of government are being influenced as citizens participate in civic and social structures.
Land transport	More people are using public transport while car owners and transport companies are choosing more efficient cars, buses and trucks to reduce carbon emissions. <sup>75</sup>
Aviation	The <i>high-altitude impact of greenhouse gases is 2.7 times that at ground level</i> . Fast trains, city centre to city centre, offer alternatives to air travel in many countries. <sup>76</sup>
Economic planning	Managers of businesses, government bodies, schools and other institutions are beginning to bring into their accounting <i>the short and long term economic costs of the effects of climate change</i> . <sup>77</sup>
Architects and builders	Some owners, managers and employees have begun to ask for and implement building and infrastructure designs that produce less greenhouse gases. <sup>78</sup>
Electricity use and supply	Some industries have begun both to <i>promote energy saving</i> and <i>seek alternative energy sources</i> which create new jobs.
Legal profession	New <i>local and cross-border</i> legal frameworks are being drawn up and environmental disputes solved with speed and equity.
The Arts	Artists stun us with the beauty they depict, shock us and move us to action through the power of pictures and music, even cartoons.

# Agriculture and forestry

The agricultural and forestry sectors are both major sources and major sinks for carbon. For decades the CSIRO, largely government-financed, has introduced Australian farmers and foresters to environmentally sustainable practices.<sup>79</sup> Financial support for new agricultural research was considerably reduced under the Howard Government, and sadly, the new Labor Federal Government has reduced it further.<sup>80</sup>

Some wasteful and destructive practices have not stopped. They include profligate irrigation practices, large-scale land clearing, including clear-felling old growth forests, and forms of farming and forestry that 'mine the land'. One proposal to address this is that Australian farmers be paid to preserve existing ground cover so that its carbon is not released into the atmosphere and the land itself improves its capacity as



a carbon sink. (Good ecological farming would seem to demand this practice in any case.) A major paper by the UN's Food and Agricultural Organisation (FAO) argues that organic agriculture is the best farming option in addressing climate change: it offers sustainable yields, healthy soils as carbon sinks, increased employment and other benefits and requires less fossil fuel input.<sup>81</sup> Some farmers are trying it, but widespread organic farming would be nothing short of a revolution for Australian agriculture. Changing ways would not be easy for small farmers, especially as their already low profit margins are decreasing as more extreme weather bites and supermarkets cut their margins. Many timber companies rely on all-but-free state and old-growth forests, to the disadvantage of farmed forestry. Imported timber adds to the complexity.

79. 'Edible Earth', *New Internationalist* Jul 2007, looks at ecologically sustainable agriculture not only for food but also as a ready sink for carbon: [www.newint.org](http://www.newint.org).

80. ABARE briefings and government responses, Mar 2008.

81. UN FAO International Conference on *Organic Agriculture and Food Security* 2–3 May 2007; Ed Hamer and Mark Anslow, 1 Mar 2008: [www.theecologist.org](http://www.theecologist.org)

82. <http://www.earthhour.org>



*‘How can one prevent disasters that destroy the environment and threaten all forms of life?’*

Pope John Paul II, 1996



# Act

Just as knowing where you want to go is the first step in choosing the right road, having a specific aim in greenhouse gas reductions is the first step to exploring options and taking action. Scientists at IPCC Bali 2007 and those cited in the Garnaut Review suggest that developed countries reduce carbon emissions by 20 to 40 per cent by the year 2020 and more than 60 per cent by 2050, based on 1990 levels. Given the rapid warming at the poles, some scientists have since increased the recommended 2050 target to a reduction by 90 per cent or more.

Energy efficiency is the easiest and quickest way to reduce carbon emissions. For example, when factories, homes, councils and the like use less electricity through efficiency gains, it means that less energy has to be produced at Australia’s predominantly coal-fired power stations. Energy efficiency is like picking the low-hanging fruit and it is an area where ordinary people have some control over their personal carbon footprint. As individuals, we can promote car pooling and demand fast, frequent and comfortable public transport. In 2007, Sydney pioneered Earth Hour, in which businesses and private homes

turned off their lights for an hour to demonstrate what savings could be made. Many cities around the world joined in this symbolic action in 2008.<sup>82</sup> Others plan to organise car-free days.

A major issue in power supply is the supply of ‘base load’ power – that is, power all day every day. One of the arguments put forward in the promotion of nuclear energy is that it can handle base load demand. Mark Deisendorf has written specifically on how networked renewable energy sources can do these things just as well. Such a scheme would not derive energy from a single source, as with a coal-powered power station, but from a bundle of renewable energy sources that would be networked. Some planners find this a messy solution, but the technology to create this networked energy grid is available today; nuclear power or large-scale carbon storage solutions are decades away. Importantly, action can begin on these renewable energy networks now.

Other likely renewable sources of base power in Australia are geothermal steam turbines and tidal power. While the science is quite clear, these technologies need more investment to scale up the processes.

# Learning the language

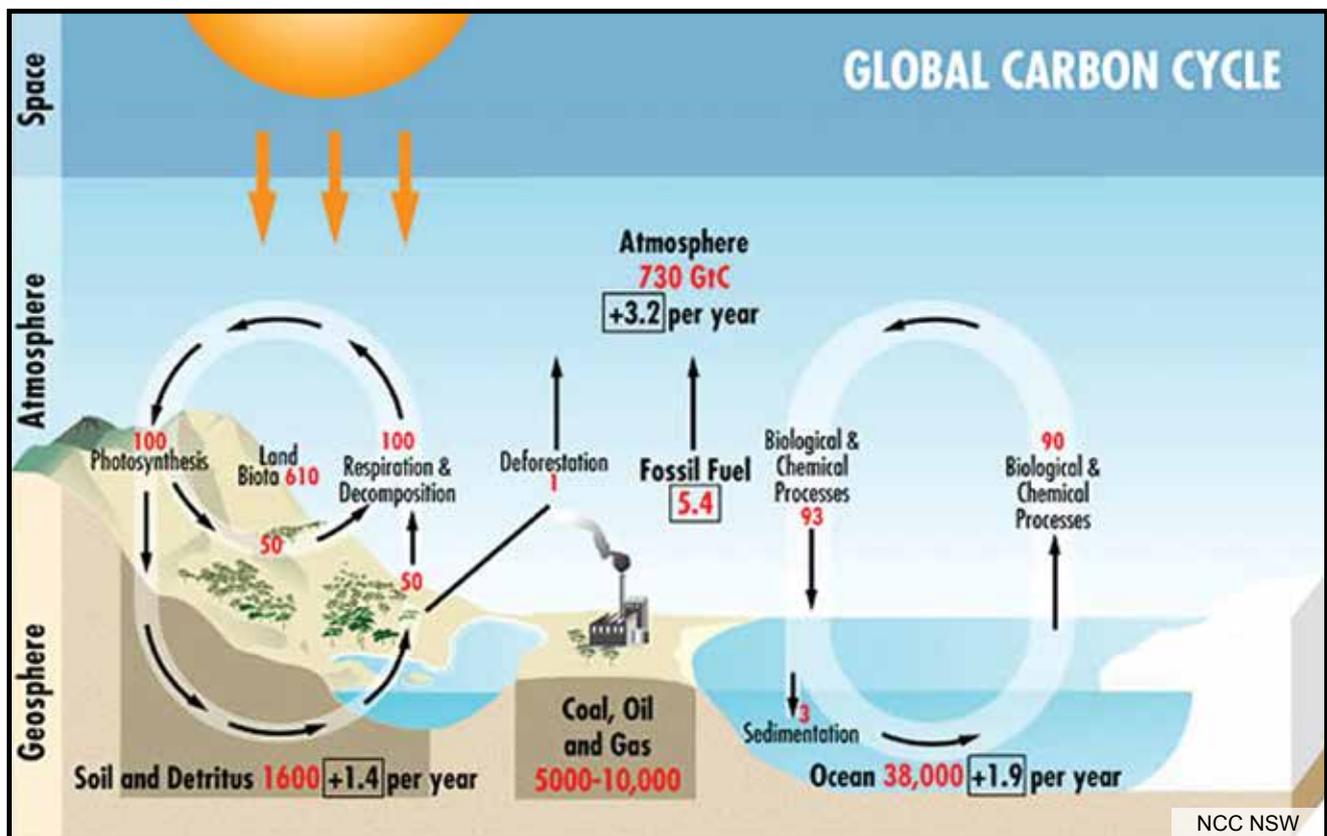
## of climate change



The greatest mark of respect for climate scientists, climate change economists and political decision makers, and for the development of the Catholic faith itself, is to learn the language of climate change and the ways of scientific argument.

The language of ecology resonates easily with Catholics: it includes words like *community*, *mutuality*, *inter-connectedness*, *regeneration*, *transformation*. Using words such as 'rainforest' instead of 'jungle', or

'wetlands' instead of 'swamps', has helped many people become environmentally aware. Likewise, learning about the basic mechanisms which alter the pace of climate change – *thresholds*, *tipping points*, *positive feedbacks*, *albedo effect*, *runaway climate change* – helps us to weigh up arguments and prompt us into urgent action. Knowledge of these deepens our wisdom and courage to act.



# Being fearless truth-tellers

One of the strongest condemnations Jesus uttered in the Gospels is of Satan as *the father of all lies* (Jn 8:44). In our times, Jesus would have been in full prophetic flight as he confronted deniers of climate science. They variously deny the science, impute base motives to those who speak out and then offer spurious solutions. Confusion and inaction is their desired outcome.

In some sections of the Church, a cancer-like ‘culture war’ has broken out: some Catholics see themselves as defending ‘true religion’ against rationalist secularism and seem to hanker after an Arcadian religious and social period that they imagine existed last century; this ideal is transferred into a fight about the reality of climate change.

In April 2007, for example, there were conflicting opinions at a Seminar on Climate Change and Development in Rome.<sup>83</sup> Prominent church leaders, scientists and political leaders outlined the facts and appealed to the churches to offer moral leadership. Other participants repeated the deniers’ litany: ‘climate change is merely the result of natural cycles’; ‘the IPCC uses models that are not real science’. Bishop Chris Toohy from Australia said bluntly, though smilingly: ‘We know what we must do. Let’s have the guts to do it’.<sup>84</sup>

Sadly, the PR employed by deniers of climate change can play on people’s good will and Christian charity and can lead to confusion by appearing to show compassion: ‘carbon taxes will rob the poor’; ‘don’t deny developing nations scientific agriculture such as genetically modified crops and bio-fuel production’. Even people of good will committed to social justice can be deceived by such ideas. The obvious plight of the poor can blind them to the ecological realities of climate change. It is attractive to endorse mechanisms

such as carbon trading because such measures may seem to address social inequity.<sup>85</sup>

Some prominent Australian Catholic journalists have supported the contrarians and written disparagingly of environmentalists, as have certain church leaders uttering warnings about ‘religious zealots from the church of climate change’. Cardinal George Pell has been a consistent opponent of the idea that climate change

is human-induced. He displayed a poor grasp of climate science in his 2008 New Year column in the *Catholic Weekly*, for example, and failed to distinguish between short-term weather prediction and the long-term calculation of climate trends.<sup>86</sup> In truth, two decades of Catholic

environmental teaching must be respected. Cardinal Pell’s attitude contrasts with the Pope Benedict’s warning in his 2008 World Day of Peace Message:

*The family needs a home ... For the human family, this home is the earth, the environment that God the Creator has given us to inhabit with creativity and responsibility ... humanity today is rightly concerned about the ecological balance of tomorrow.*<sup>87</sup>

Jesus condemned the Pharisees for neglecting the weightier matters of the Law. The modern church must address matters of substance, and climate change is the paramount issue that the human family must act on now to secure its future in God’s creation. While understandably some people may be traumatised into denial when faced with climate change, it looms as a true moral challenge to action and reason for prayer. The existing degree of certainty about climate change does not support a ‘wait and see’ moral response.



Father Rue, Archbishop Kelly, Cardinal Martino

83. *Hong Kong Examiner* 27 May 2007; *The Tablet* 5 May 2007; [www.cathnews.com.au](http://www.cathnews.com.au). Father Charles Rue participated in the Seminar for the Columban Mission Society.

84. Cf. *Hong Kong Examiner*, report by C Rue.

85. For example, Michael Raper, President of Welfare Rights Centre, responding to a question at the 2008 Jesuit Lenten Seminar Series ‘Climate Change: Who pays the price’.

86. Cardinal George Pell, ‘That was the year that was’, *The Catholic Weekly* 6 Jan 2008.

87. Nos 8–9.

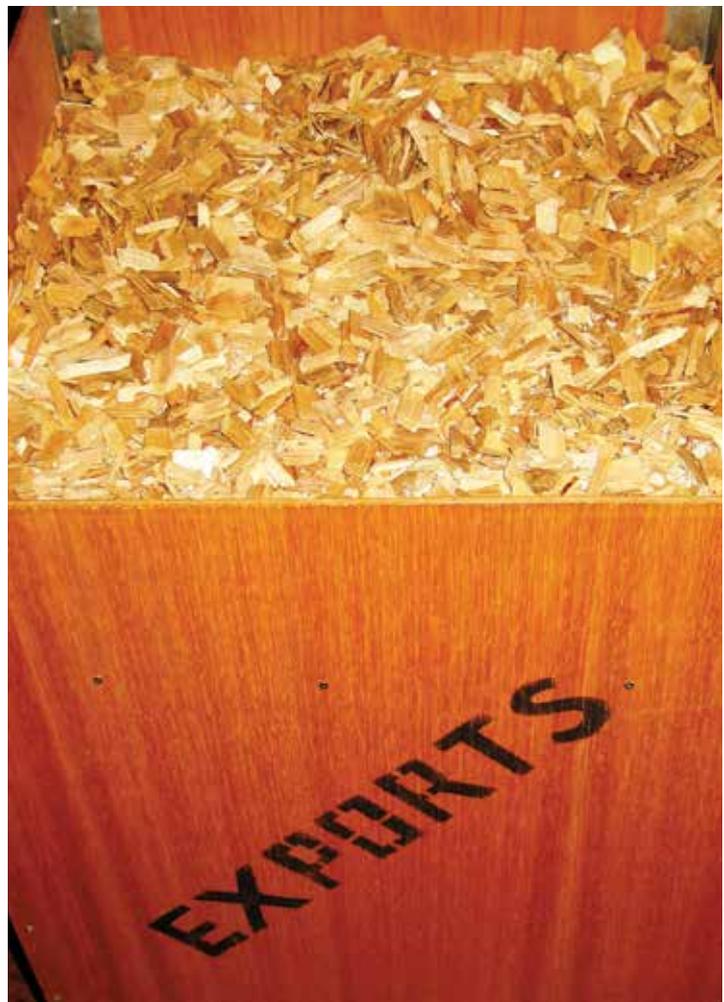
## Some practical aims

- The three levels of government can set an example by choosing procurements, buildings and energy options that reduce greenhouse gas.
- Misleading advertising that exploits consumers' ecological concerns must be tightly legislated against.<sup>90</sup>
- Australia must continue to support international structures that help reduce global warming, such as the IPCC and the UN Treaties on Biodiversity and World Heritage. These take precedence over trade agreements.<sup>91</sup>
- The government can redirect investment within Australia by such measures as putting a cap on carbon emissions and setting renewable energy targets. Business will do what it knows best if it has some investment certainty.
- Tax reform will be part of the mix of government measures to finance new ways. The whole of Australia needs to benefit from the mineral-boom windfall. Money available for investment needs to be redirected into national projects addressing climate change – education, grants for energy efficient housing refits and so on. Tax law could even encourage superannuation funds to invest in such projects.
- Governments have a critical role as catalysts for research and development of alternative energy sources to address the peak oil crisis and lessen greenhouse gas emissions. Australia's former head scientist has suggested that government financial support for research and science in the universities needs to increase 40 times over.
- One major part of an Australian response to climate change, especially in the south-western Pacific, is foreign aid that willingly shares ecologically sustainable technologies without patents.<sup>92</sup> We should not export our energy-hungry style of development; aid is not mere investment.<sup>93</sup>
- The increasingly large Australian defence budget can well be directed towards foreign aid, genuine security and addressing oil shortages and climate change. The nation cannot limit its work for peace to governance issues and border security. Creating a just world is the only real way to grow lasting peace, protect the environment, supply alternative energy and manage the effects of climate change.
- Mega-cities perpetuate inefficient infrastructure design and are vulnerable to large-scale damage from extreme climate events, such as the Sydney hailstorm of 1999. We urgently need to discuss proposals to build new regional cities, linked by fast rail and supported by industries and research centres focused on alternative technologies.

## Fostering government leadership on climate change

Governments have a vital role in framing laws and policies that address climate change and foster community cooperation and individual action. Individual citizens, business and labour organisations and independent groups need processes that allow participation in setting these benchmarks. Entering into the political process is a vocation to achieve the common good.<sup>88</sup> There is, for example, a long tradition of union support for environmental and conservationist causes, most famously the 'green bans' that were inspired by Jack Munday's leadership. Many major unions argue that green jobs will secure long-term employment. Other unions have stood in the way of environmental reform – for example, over the logging of old growth forests.

Similarly, there are some business organisations that argue strongly for environmental reform: more than 100 senior business executives have shown their support for the National Business Leaders Forum on Sustainable Development.<sup>89</sup> Other business leaders, however, oppose reform as contrary to their financial interests.



# *Responding to climate change:* deepening faith

Response to climate change is opening a new chapter in the evolving Catholic story. In the 19th century Cardinal John Henry Newman wrote *Development of Dogma*, which broadened ideas on the way Catholic faith grows. Such growth is a work of the Holy Spirit, who guides the *sensus fidelium* of the whole believing Church community. Catholics, both laity and clergy, discern Spirit-given truth in a process of dialogue with the events and people of each age, and such discernment is a communal Catholic calling that is guided by Church leaders as servants of the people of God.<sup>94</sup> This theme was often taken up by the Second Vatican Council as part of Church renewal in a new reading of the signs of the times. The Council made very clear that the Holy Spirit is indeed the principal agent of the Church's mission and recognised that the history of humanity has known many major turning points that have encouraged new missionary outreach. The Church, guided by the Spirit, responded to them and grew in its understanding and expression of faith in the process.<sup>95</sup> Pope Benedict invites us to let our hearts 'be stretched'.<sup>96</sup>

The temptation to do nothing is powerful: leave it to others to take the lead in choosing an energy efficient house or car, or to do the sums about energy use or food consumption. And there is always the temptation to despair that nothing can be done, or to give way to various forms of the selfish 'me' culture: 'I'm all right Jack' or 'not in my back yard'. The number of empty rooms in modern homes might be a test of our personal moral integrity.<sup>97</sup>

Knowledge about the causes of climate change and remedies might well lead to a revival of the Catholic tradition of voluntary self-restraint as an individual choice and communal discipline of penance. A modern and relevant form of the traditional Friday penance might be the virtue of deciding when we've consumed enough energy. Friday is the primary prayer day for Muslims, so such an initiative could be a contribution to inter-faith relations and help create solidarity in facing climate change.<sup>98</sup>

Theology and ethics connected with climate change have grown in the past decade and Catholic leaders have been endorsing the changes. In 1996, Pope John Paul II spoke to the European Bureau for the Environment saying:

*We face a fundamental question ... both ethical and ecological ... How can one prevent disasters that destroy the environment and threaten all forms of life?*

Pope Benedict XVI used these words in his 2007 World Day of Peace Message:

*humanity ... must be increasingly conscious of the links between natural ecology, or respect for nature, and human ecology.*

Cardinal Martino said in his closing address to the 2007 Roman Seminar on Climate Change and Development:

*This seminar deepens doctrinal reflection as Gospel meets life in society ... the Gospel is always new, adapting as historical conditions change.*



Sisters and Co-workers in Rural Ministry



NCC NSW



Leo Baker

88. *Catechism of the Catholic Church* nos. 2236, 2239.

89. See 'Business signs up to support short-term cuts' and Ian Dunlop, 'Prompt action required on sustainability and global inequity', *ECOS* #138, Aug-Sep 2007.

90. [www.choice.org.au](http://www.choice.org.au).

91. Wendy Frew wrote that the climate issue is 'inherently international' and wealthy nations have to help poorer countries (SMH 9 Aug 2002). Dr Raj Pachauri, director of Tata Energy Research and Chair of IPCC, said at ACU Narayanan Oration 'What is good for India is good for the world.' (SMH 10 Aug 2007).

92. Sean McDonagh, *Life: Creation or Commodity? The Case Against Patents on Living Things* Catholic Social Justice Series no. 41, Australian Catholic Social Justice Council, 2001; Sean McDonagh, *Patenting Life? Stop*, Dominican Publications, Dublin, 2003; Dave DeFusco, *Program to encourage 'green' industry in developing countries* <http://environment.yale.edu>.

93. Debra Jopson, 'Phantom aid never leaves our shores', *SMH* 28 May 2007. The report says that such 'aid' has often been handled by the Export Finance Insurance Corporation (EFIC).

94. Vatican II, *Constitution of the Church* Nos. 12, 25.

95. John Paul II, *Mission of the Redeemer* Nos. 21, 30.

96. Benedict XVI, *World Day of Peace Message 2008*, No. 33.

97. Sunanda Creagh, *SMH* 8 Aug 2007.

98. <http://alghazzali> The Alghazzali Centre is a community-based Islamic group that has been active in tree planting, the Faith and Ecology Network and other environmental activities.

# Continuing the spirit of World Youth Day

A major theme of World Youth Day 2008 (WYD2008) in Sydney was *evangelisation* and *mission*. Many people asked if the call for Catholics to cooperate in the light of faith in finding solutions to climate change was loud and clear at World Youth Day.

A local group of young people proposed that the event would speak to the world if World Youth Day were environmentally friendly in its use of materials and energy. More significant, however, was to make dialogue with environmentalists and cooperative commitment to action on climate change central to the World Youth Day message and evangelising outreach. Bishop Chris Toohey of Catholic Earthcare Australia did just that in *Caring for*



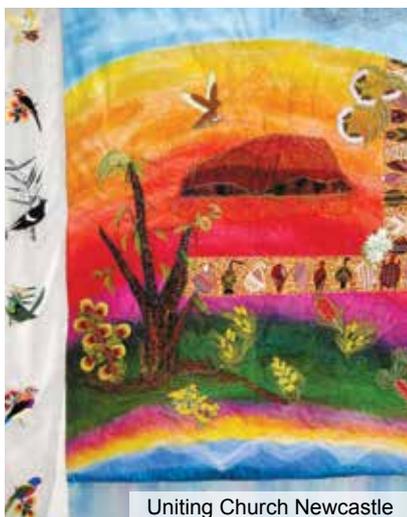
*God's Creation* – his address to WYD2008 participants at Darling Harbour on 18 July. He said faith links feelings and reason, and these two must be kept in balance for faith to be true faith. He concluded that Catholic youth are called to listen to the scientists and work with them.

But beyond that were the statements and actions of Pope Benedict himself. He mentioned environmental concerns no less than seven times in connection with World Youth Day.<sup>99</sup> Speaking on his arrival at Barangaroo, he said:

*Perhaps reluctantly we come to acknowledge that there are also scars which mark*

*the surface of our earth: erosion, deforestation, the squandering of the world's mineral and ocean resources in order to fuel an insatiable consumption. Some of you come from island nations whose very existence is threatened by rising water levels; others from nations suffering the effects of devastating drought.*<sup>100</sup>

On his return to Italy he spoke at length on the disappearance from theology of the doctrine of Creation and the 'supreme importance' of 'a new understanding of Creation and Redemption (see box).



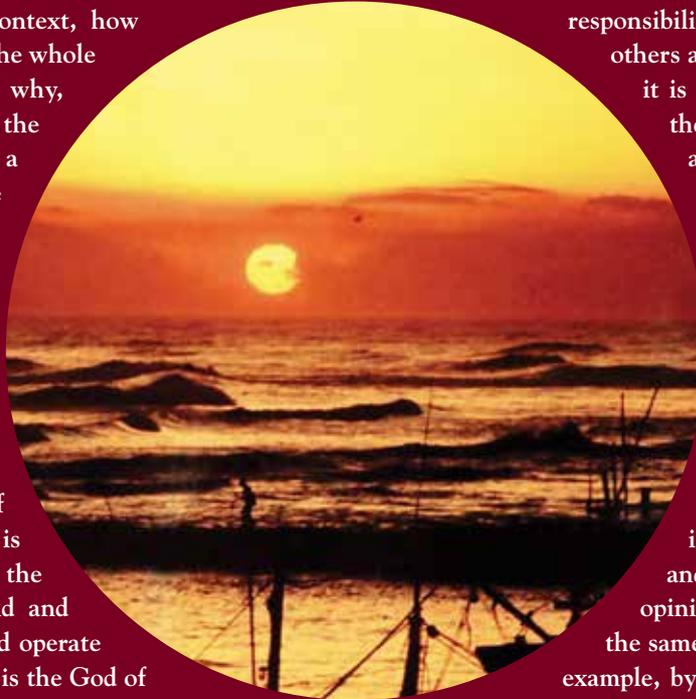
Uniting Church Newcastle



Marist WYD2008 Festival Logo

## Benedict XVI on the doctrine of Creation:

In recent decades the doctrine of Creation had almost disappeared from theology, it was almost imperceptible. We are now aware of the damage that this has caused. The Redeemer is the Creator and if we do not proclaim God in his full grandeur – as Creator and as Redeemer – we also diminish the value of the Redemption. Indeed, if God has no role in Creation, if he is relegated merely to a historical context, how can he truly understand the whole of our life? ... This is why, for me, the renewal of the doctrine of Creation and a new understanding of the inseparability of Creation and Redemption are of supreme importance. We must recognize anew: He is the *Creator Spiritus*, the Reason that exists in the beginning, from which all things are born and of which our own reason is but a spark. And it is he, the Creator himself, who did and can enter into history and operate in it precisely because he is the God of the whole and not only of a part ... Chapter 8 of the Letter to the Romans also fits into this context. It says that the whole of creation has been groaning in travail because of the bondage to which it has been subjected, awaiting the revelation of God's sons: It will feel liberated when creatures, men and women who are children of God, treat it according to God's perspective ...



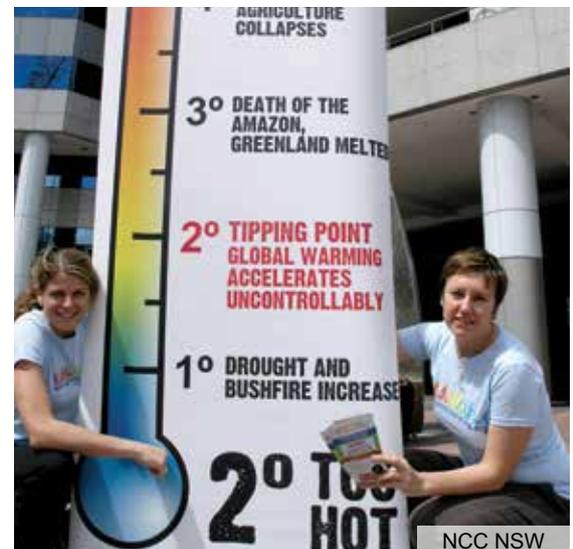
Thus, I believe we must strive with all the means we have to present faith in public, especially where a sensitivity for it already exists ... Yet, none of this will suffice unless we ourselves find a new way of living, a discipline of making sacrifices, a discipline of the recognition of others to whom creation belongs as much as it belongs to us who may more easily make use of it; a discipline of responsibility with regard to the future of others and to our own future, because it is a responsibility in the eyes of the One who is our Judge and as such is also Redeemer but, truly, also our Judge.

Consequently, I think in any case that the two dimensions – Creation and Redemption, earthly life and eternal life, responsibility for creation and responsibility for others and for the future – should be juxtaposed. I also think it is our task to intervene clearly and with determination on public opinion. To be heard, we must at the same time demonstrate by our own example, by our own way of life, that we are speaking of a message in which we ourselves believe and according to which it is possible to live. And let us ask the Lord to help us all to live out the faith and the responsibility of faith in such a way that our lifestyle becomes a testimony; and then to speak in such a way that our works may credibly convey faith as an orientation in our time.<sup>101</sup>

The Church's mission is to witness to what God is doing in each age, and now is the era for making a responsible and faith-filled response to climate change. At the practical level, as youth from around the globe disperse after World Youth Day, it will be seen as a truly catholic event if they take home a universal message about the human family's common home, Earth, and the climate challenge.

Archbishop Migliore, speaking in 2008 as the Holy See's permanent observer to the UN, said:

*The challenge of climate change is at once individual, local, national and global. Accordingly, it urges a multi-level coordinated response ... my delegation, therefore, commends the United Nations Framework Convention on Climate Change (UNFCCC) for providing a global framework for concerted international action to mitigate climate change and to adapt to its impacts.*



99. See John L. Allen Jr. at <http://www.ncrcfae.org/node/2023>.

100. <http://www.zenit.org/article-23238?l=english>.

101. Benedict XVI August 6, Bressanone; Reported 20 August 2008 by [www.zenit.org](http://www.zenit.org).

# Climate change, upheaval and renewal



Leo Baker



NCC NSW



Often, after major climate events, new religious eras have emerged: social upheaval is often followed by new spiritual stories and religious sensibilities.<sup>102</sup> The collapse of early civilisations is clearly connected with changes in vegetation following climate change. The flight of Abram from Ur, which led to the First Covenant, followed closely on from social disruption in the region after major 13th-century BC climate change. In the 4th century AD, atmospheric dimming led to crop failures and mass migrations, including the barbarian invasion of Europe that hastened the collapse of the Roman Empire.

Social collapse was followed by a renewal of Western Christianity including the 6th-century response of the Irish monastic missionaries like St Columban to re-civilise Europe.

Quite apart from the impacts of climate change on life as we know it, the rapid decline in fossil fuel supplies

is enough in itself to turn the world as we know it upside down. Oil production is already declining as reserves are pumped dry, with an obvious impact on road transport costs. In recent decades, Australia has expanded its road infrastructure to cater for private cars and road transport, but fossil fuel shortages will radically change the pattern of transport we have come to know and depend on.

A less-recognised factor is the extent to which western style food production and processing depend on fossil oil. This is serious. Oil drives most machines. Agricultural chemicals and fertilisers are largely fossil-based. The net result of oil shortages will be the rising price of food, and the poor will suffer first since they spend a greater proportion of their income on food – a fact that has already led to food riots in countries like Haiti and Indonesia. So, just as peak oil causes food prices to rise, food availability will decline because of unpredictable climate patterns. This will affect not only rainfall but pest regimes and even the budding pattern of plants.

Dominant religious formulations will be increasingly challenged to help their followers make sense of a world turned upside down. Religions will be confronted by apocalyptic thinking and will have to cope with dramatic fundamentalist solutions. In some ways, the current financial crisis is the opportunity for a trail-run. Can we gain the skills to 'read the signs of the times' and to be led by the Spirit into a new religious era, not escapist, but rooted in the realistic hope Pope Benedict XVI speaks of?



Kiribati

# Led by the Holy Spirit

The Holy Spirit is leading the Catholic community to respond to the reality of climate change. How does the Catholic community respond to this reality? Will it preach wisdom, prudence, discernment and pre-emptive action, or will it just stay silent and wait around to help pick up the pieces after the crisis strikes? History has judged such religious approaches harshly: they become irrelevant, while new ones are embraced.

before teaching begins. Listening to the spiritual history of people who carry a sensitivity to environmental issues would not only respect their journey but challenge the individual RCIA sponsors and Catholic community to grow in appreciation of what the Holy Spirit is saying in the lives of environmentalists. In this process, witness to the Catholic tradition goes hand in hand with listening in a spirit of dialogue.

## Might a new spiritual era delight in humbly learning from Earth and living in harmony with God's gift?



There is a need for research into the impacts of sudden climate change on religious thought throughout history, especially for Catholics in a post-Vatican II spirit.<sup>103</sup> With the emerging 21st-century climate change crisis, *what new social and resultant new spiritual order might evolve?* Might a new spirituality combine compassion both for Earth and People as foreshadowed in Pope John Paul II's succinct but seminal 1990 World Day of Peace Message? Might a new spiritual era delight in humbly learning from Earth and living in harmony with God's gift?

A great gift of the Second Vatican Council was the revival of the Adult Catechumenate (RCIA, or Rite of Christian Initiation of Adults). It models how to be led by the Spirit. The RCIA ritual asks that the catechist respect the place from which the enquirer is coming



St Mary's Cathedral, Sydney



Lilyfield Farmers Market



Leo Baker



102. See Chris Turney, *Ice, Mud and Blood: Lessons from Climates Past*, Macmillan, Hampshire, 2008; [www.nede.noaa.gov/paleo](http://www.nede.noaa.gov/paleo).

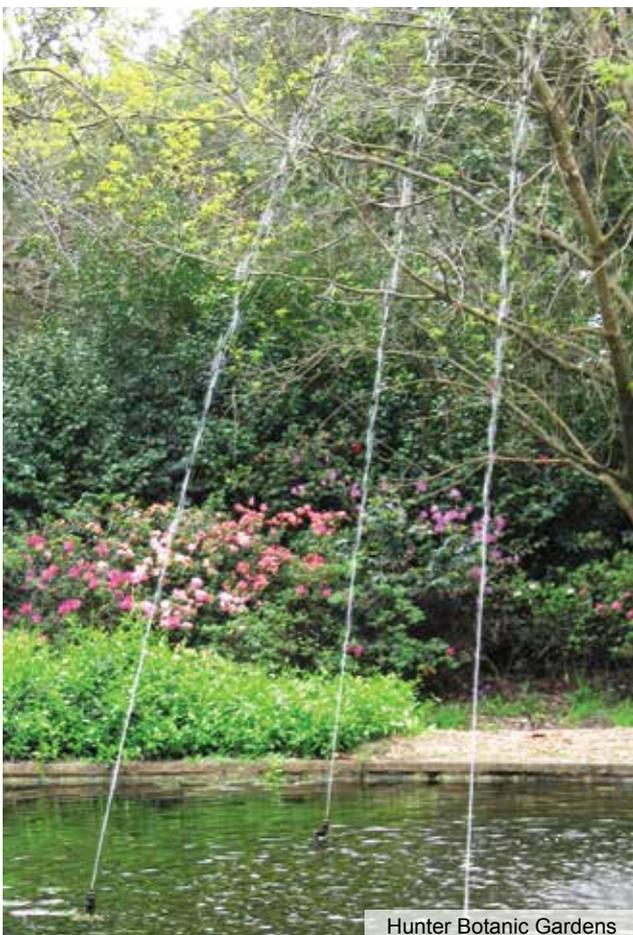
103. John Paul II, *Missio Redemptoris (Mission of the Redeemer)* No. 30: 'The history of humanity has known many major tuning points which have encouraged missionary outreach'.

# Conclusion

The vast majority of scientists and planners suggest that developed countries should urgently aim to reduce carbon emissions by 20–40 per cent by the year 2020 and more than 60 per cent by 2050 based in 1990 levels. Catholics are challenged to make a credible response in helping all peoples achieve these targets as an issue of morality, justice and spirituality, worthy of

sustained Christian prayer. Climate change challenges all people. It challenges Catholics in particular, as Pope Benedict says in his recent encyclical, to be people of hope rooted in the realities of history and not in escapist fantasies. As was said at the beginning of this paper, Catholics are being led by the Spirit into a new mission task for our times:

- **Be truth-tellers.** Welcome knowledge about Earth's systems and the consequence of human-induced climate change as advances in truth.
- **Be spiritual visionaries.** Accept changing patterns of climate as another chapter in cosmic revelation and a new historical turn in encountering God.
- **Be just and compassionate.** Commit to challenge economic structures that disrupt Earth's ecological systems. Care for the planet and continue to heal social disruption, especially among the world's poor.
- **Be active.** Lead the way in a commitment to new ways of living lightly on the earth.



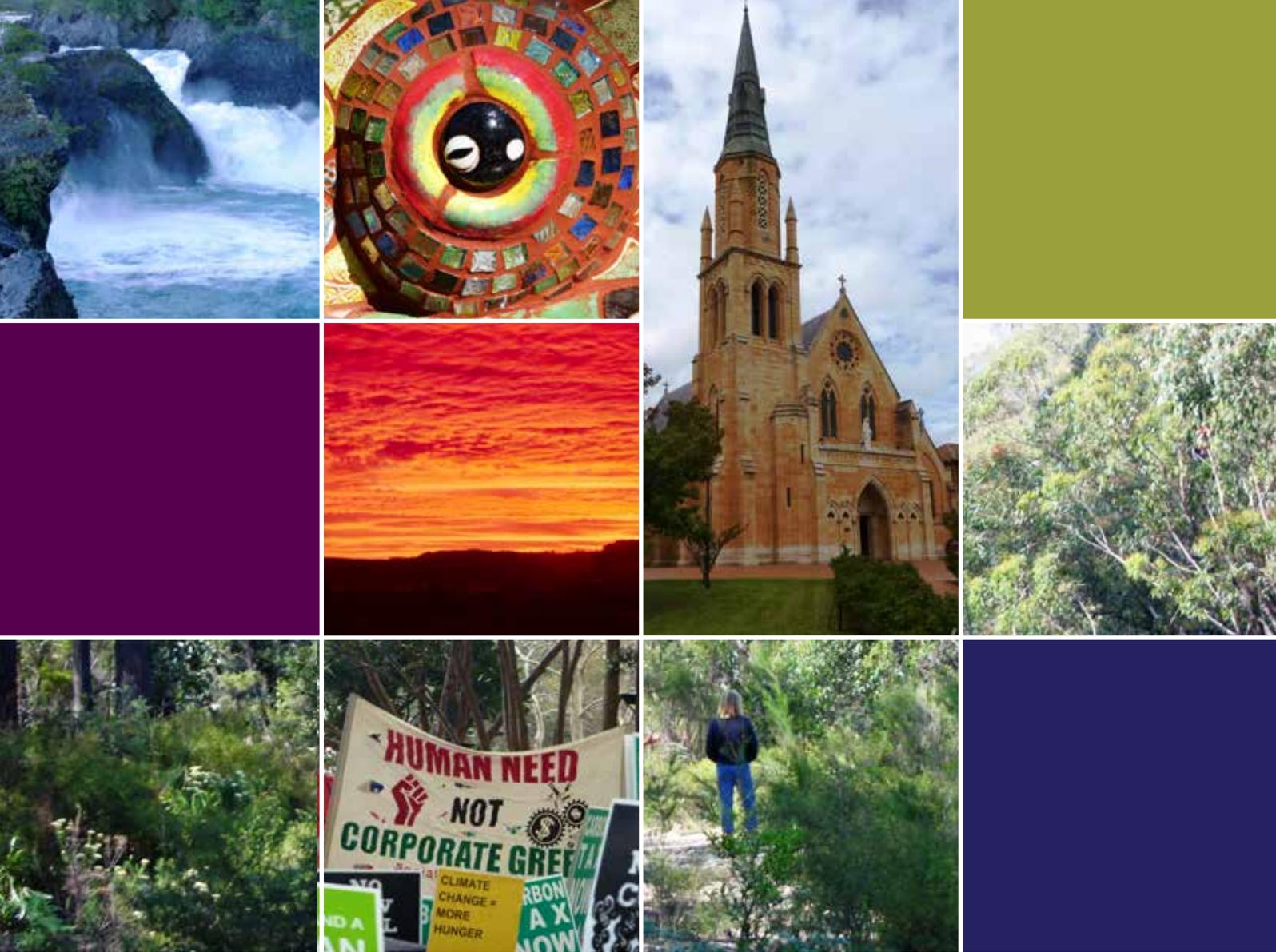
Prayer for the guidance of God's Spirit to renew the face of the Earth is central to Catholics making individual and community responses to climate change – *Come Holy Spirit*.<sup>104</sup> We have the example of Mary, who responded to the Spirit and willingly agreed to act as God wanted, and who asked others to do what her Son asked. In praying her Magnificat and honouring her role as Mother, she can help lead Catholics to respect the planet that nurtures us all, and to rightly call it *mother Earth*.<sup>105</sup>

The *ecological conversion* spoken of by Pope John Paul II will require courage as believers choose to make sacrifices and change lifestyles to reconnect with nature's rhythms.<sup>106</sup> They will have to empty themselves as God chose to do in taking on flesh in Christ Jesus, but in doing so they will help bring the transformation that leads to the fullness of life God wishes for all peoples and the world in our Cosmic Lord.

104. John Paul II: 'The Holy Spirit is indeed the principal agent of the whole of the Church's mission ... The history of humanity has known many major turning points which have encouraged missionary outreach, and the Church, guided by the Spirit, has always responded to them with generosity and farsightedness.' *Missio Redemptoris* (Mission of the Redeemer), No. 21.

105. John Paul II: 'Nature itself, from being 'mater' (mother), is now reduced to being 'matter', and is subjected to every kind of manipulation'.

106. John Paul II: 'The Jubilee is a further summons to conversion of heart through a change of life. It is a reminder to all that they should give absolute importance neither to the goods of the Earth, since these are not God, nor to man's domination or claim to domination, since the Earth belongs to God and to him alone (Leviticus 25:23)'. Bull *Proclaiming Great Jubilee* 1998, No. 12.



# *Between Calamity and Hope*

LET THE SON SHINE

Update 2013

**Charles Rue**

# Between Calamity and Hope

## Introduction



*“The human creature feels very little before the wonder of divine Providence, manifested in creation and history. At the same time, [the human creature] realises that he is the recipient of a message of love that calls him to responsibility. People, indeed, are appointed by God as administrators of the earth, to cultivate and protect it. From here stems that which we might call their ‘ecological vocation,’ which in our time has become more urgent than ever.”*

Pope John Paul II Message on the eve of the UN World Summit on Sustainable Development, Johannesburg, South Africa. <http://www.zenit.org/article-5170?l=english>

Pockets of Australian citizens, including Catholic groups, have been making positive responses to the dangers of climate change – ‘signs of hope’ affirming climate scientists and action by governments. However, Australia still largely follows a business as usual approach in its liberal use and exploitation of fossil fuels.

People of faith are called to be ecologically converted and create new ways of living within earth’s God-given systems. More than an ethical or even a moral challenge, ecological conversion lays out before us a newly oriented spiritual journey. The Church’s environmental teaching speaks as a call to ecological vocation to be just and compassionate truth tellers, people of vision and social activists.<sup>1</sup> This leads to prayer at all stages of making our response to the climate challenge (see pages 6-8, 13-20, 24-25, 30).<sup>2</sup>

The See-Judge-Act formula keeps us to the blunt message that systems matter (pages 9-10).<sup>3</sup> That message ‘was music to my ears’, wrote Geraldine Doogue in her Foreword to the first section – natural and human systems; and a systematic Catholic response. The big picture is the real challenge, to be faced in a reasoned, cooperative and systematic way.

### The changed social context in 2012

The global financial crisis, which originated in western banking methods, has spawned global protest movements under banners such as ‘Occupy Wall

Street’. China and India are establishing their claims as leading nations; Latin America is an economic sleeper that is now waking. God is active in these historic moments and Gospel happens as the Holy Spirit guides our discernment of God’s presence in such social movements.

Another modern movement is social media. For more and more Australians reality is mediated in a new highly individualised way that is changing cultural attitudes. Doubts are emerging about the effectiveness of democratic processes, and admiration grows for the rapid prosperity of state-directed capitalism with even a willingness to trade away individual freedoms.<sup>4</sup> New ways of thinking on Catholic social justice categories are emerging. What was traditionally argued on objective definitions of human rights, individualised ‘i’ media now sees as more fluid and less proscriptive.<sup>5</sup> For other reasons, a movement simmers below the surface that proposes a more humble grounding of humanity in mother earth.<sup>6</sup>

In this context of evolving opinion, some people have found it useful to create their own climate change issues folder, making a collection of articles to help them to join the dots about climate debate issues. Many collect prayers of meaning for them to go along with their chosen issue.



1. Chris Hedges Daniel Berrigan: America’s Street Priest June 11, 2012 “TruthDig”  
2. Sean McDonagh Climate Change: The challenge to all of us The Columba Press, Dublin, 2007. <http://catholicclimatecovenant.org/resources/suggested-prayers/>  
3. Charles Rue ‘The strong influence of YCW’ The Far East June 2011.  
4. Loretta Napoleoni <http://www.abc.net.au/radionational/programs/bigideas/lorettanapoleoni/4172838> <http://www.eastasiaforum.org/2010/10/09/universal-human-rights-cultural-relativism-and-the-asian-values-debate/>  
5. <http://www.un.org/en/documents/udhr/index.shtml>  
6. Jonathan Wachtel ‘U.N. Prepares to Debate Whether “Mother Earth” Deserves Human Rights Status’ Fox News 18 April 2011 <http://www.foxnews.com/world/2011/04/18/prepares-debate-rights-mother-earth/>

# See



*“We call on all people and nations to recognise the serious and potentially irreversible impacts of global warming caused by the anthropogenic emissions of greenhouse gases ... We appeal to all nations to develop and implement, without delay, effective and fair policies to reduce the causes and impacts of climate change ... we must protect the habitat that sustains us.”*

Fate of Mountain Glaciers in the Anthropocene: A Report by the Working Group Commissioned by the Pontifical Academy of Sciences May 11, 2011

## Sea and Temperature Rises

In 2009 images of drought were high in people's consciousness, but recently we have had dramatic TV footage of successive floods.<sup>7</sup> While these emergencies have caused great hardship for many citizens, it would be foolish to simply focus on repairing the damage and alleviating suffering if we ignore the connection between these extreme weather events and global warming.<sup>8</sup>

The physical effects of climate change in Australia are listed in the first section (p. 13). Consider just one consequence from that list – sea rise:

- Following the 'official' international policy objective of limiting average global warming to 2 degrees Celsius above pre-industrial levels will produce at least a 1-metre sea level rise this century. It is already in the pipeline, but it could become four metres, devastating coastal communities in their present form.
- Following 'business as usual' use of fossil fuel will lead to temperature increases of over 4 degrees Celsius, and, if all earth's accumulated land ice melts, sea levels will rise by over 60 metres.<sup>9</sup>

Another consequence is the rising number of days per year with extreme temperatures.<sup>10</sup> Overlaying two simple bell graphs shows that rising average temperatures per year leads to a higher incidence of hot and extremely hot days. By 2100 the projected number of days over 35C will increase in Melbourne by 3 times, in Sydney 5 times, and in Canberra 6 times. Hospital admissions for heat stress will go up, including mental health cases.<sup>11</sup>

Are these projections alarmist? For people dedicated

to truth, it is the reality. Frantic shouts of 'liar' will not change the facts.

Climate change can be seen as the new name for war, famine and pestilence. Impending calamity is not too strong a phrase to use; that is why it is part of the title for this section. However, both campaigners and politicians seem to have been too scared to be honest with their supporters and speak about global warming's stark consequences.<sup>13</sup> A powerful image of the reality of climate change is the fact that ships are now able to sail through the Arctic Ocean. The white Arctic ice cover that reflected heat (the albedo effect) has become a dark heat-absorbing open sea.<sup>14</sup>

Updated websites and news services (pp. 11-12) prioritise data about emerging hot spots.

- Climate changes at the poles have led to increased melting of sea ice and the movement of land based ice accumulated over millions of years.
- There is new-found awareness about the importance of rising sea temperatures and how they affect, among other things, the ocean's capacity to absorb carbon.
- Thawing of the northern hemisphere's frozen tundra lands releases buried methane gas, a prime example of the 'feedback' mechanism (p. 29).
- Very alarming is the fact that warming in most surface areas of the globe and in the oceans has been more rapid than predicted.<sup>15</sup>

Some deniers of human-induced climate change, often orchestrated by vested interests, latch onto localised



## How greenhouse gases work

The physics of increased percentages of greenhouse gases in the atmosphere causing climate change on earth are simple: blanket and heat effect. In the past nature kept atmospheric gases stable as it balanced out gases expelled from and absorbed by the earth. It was delicate. When a single asteroid struck the earth and changed the atmosphere, it wiped out most life on earth and took millions of years for nature to restore a balanced atmosphere. In our times when a single volcano erupts it takes the earth years to restore atmospheric balance. But such emissions are minor compared with the fossil fuel gases expelled by the 200-year-old industrial revolution. The mathematical gap between the gases expelled and earth's ability to absorb them is the problem. The extra gases hold in the rays of the sun, heat the earth and cause its climate trajectory to change. It is simple physics.<sup>12</sup>

examples of stable temperature or increased snowfall to cast doubt on rising average global temperature figures. Australian media gave scant space to a Vatican-based scientific group which called on all nations to recognise potentially irreversible serious impacts of global warming.<sup>16</sup>

However, while answering deniers of human-induced (anthropogenic) climate change, it is important not to distort data. In 2009, in what was dubbed 'Climategate', the emails of scientists at the University of East Anglia were hacked and data distorted. It was played out as total denial of climate change. However, while we can readily admit mistakes and scientific musings, this affair does not in any real way cast doubt on the relentless trajectory of climate change.<sup>17</sup>

Science is about using argument, reason and logic to keep unravelling the truth. Climate scientists robustly debate issues before they agree. Equally technologists argue over what are the best alternative energy sources such as 'tri-generation' power plants in Sydney's CBD.<sup>18</sup> Believers need to rejoice in this method of truth-finding.



7 Karen Kissane, John Huxley and Lindsay Murdoch 'After the Deluge' The Age 15 January 2011. Deborah Smith 'Extreme heat, floods likely as weather evolves' SMH 14 May 2012.

8 Ellen Fanning 'The truth is in the flood maps' (Part Two) Global Mail 18 May 2012 <http://www.theglobalmail.org/feature/the-truth-is-in-the-flood-maps-part-two/241/> Nicole Hasham 'Rising ocean temperatures have tide turning in favour of scorching sibling El Nino' SMH 4 July 2012. Nick O'Malley 'New York left paralysed as super storm hits' SMH 31 October 2012

9 <http://www.csiro.au/Outcomes/Climate/Understanding/State-of-the-Climate-2012.aspx> Karen Kissane 'Disaster expert urges a retreat from the coast' The Age 15 January 2011. Cameron Stewart 'Anger rises ahead of the sea: confusion between all tiers of government is causing angst for homeowners on the coast' The Australian 30 July 2011. Paul Sheehan 'More storms on the way unless we learn to manage the land' SMH 2 January 2012.

10 Ben Cubby 'Deaths from heatwaves to rise "without emission cuts"' SMH 30 November 2011.

11 Tony McMichael 'Climate Change and Human Health: global and local impacts ANU National Centre for Epidemiology and Population Health. <http://www.climatechange.vic.gov.au/adapting-to-climate-change/adapting-to-climate-change-video>

12 <http://www.csiro.au/en/Outcomes/Climate/Climate-Questions-Science-Facts.aspx>

13 <http://climatesummit.org.au/summit-presentations/>

Tom Arup 'Catastrophic warming to hit poor, says World Bank' SMH 20 November 2-12. Ben Cubby 'Global warming tipping point where even the earth is melting' SMH 28 November 2012.

14 John Vidal 'Arctic ice melts to lowest record on record' SMH 13 09 2011.

15 Suzanne Goldenburg 'Disaster looms as Himalayas heat up' SMH 15 10 11. David Bain 'Climate Change and the Ski Industry – an Australian Perspective' Mountain Journal March 2012. <http://themountainjournal.wordpress.com/environment/climate-change/climate-change-and-the-ski-industry-an-australian-perspective/>

16 Fate of Mountain Glaciers in the Anthropocene' 11 May 2011 <http://www.casinapioiv.va/content/dam/accademia/pdf/glaciers.pdf>

17 Matt Ridley Weekend Australian 4-5 September 2010.

18 Nicky Phillips 'People try to put him down, but he's just talkin' about trigeneration' SMH 2 December 2010; Mark Diesendorf 'Critique of the Grattan Plan' Chain Reaction April 2012 [www.foe.org.au/chain-reaction](http://www.foe.org.au/chain-reaction)



# Soil carbon and climate change

Soil science has emerged as a major factor in the climate debate.<sup>19</sup> There are two major findings: healthy soil can be a natural sink for large amounts of atmospheric carbon with measurable tradeable value; and carbon plays a vital role in soil health essential to the production of healthy food. This will have implications for a future subject to climatically changed growing conditions. Scientists have made the link between climate change, soil carbon and good food.

Common interest unites farmers and food consumers around the cause of promoting more carbon in soils. Farmers are keen to have soil that produces fibre and food to support them financially.<sup>20</sup> Some nations pay for on-farm services such as preserving biodiversity, so why not carbon sequestration? Consumers are equally keen to promote soil carbon because of its role in producing healthy and tasty food. Farmers' markets and 'foodie' events are signs of this alliance.

With rapid climate change, the farming of particular crops in some localities will cease when the climate gets too hot and rainfall drops, so feeding a growing world population will be more difficult – a calamity in the making.<sup>21</sup> Also, western style agriculture often disrupts natural soil functions.<sup>22</sup> Many agricultural leaders have been hoodwinked by multinational seed and chemical companies working under the banner of 'progress' – a global problem edging out organic production in developing nations.<sup>23</sup> The introduction of genetically modified agriculture (GMOs) is the latest ploy but objections are dismissed as emotional 'personal science'.<sup>24</sup> However, maybe we the consumers and the fossil fuel industry are more guilty than the agricultural sector as our 'modern' lifestyle pours extra greenhouse gases into the atmosphere and we demand ever cheaper food.

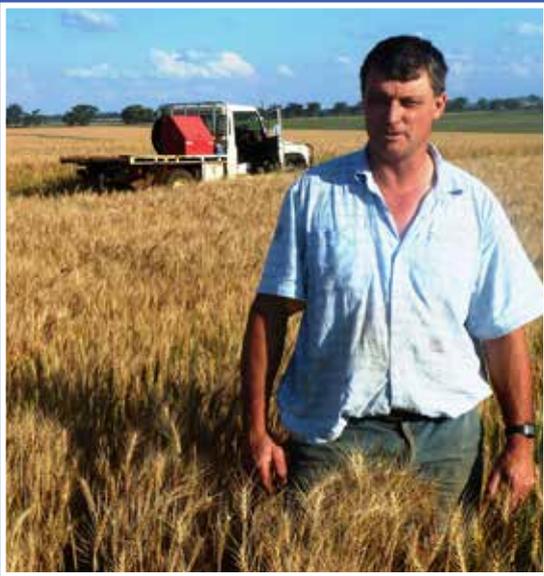


19 <http://www.ecomagazine.com/index.cfm> The CSIRO's magazine Ecos: science for sustainability search for articles on 'soil carbon'.  
 20 Debra Jopson 'They came, thy sowed, he planted' SMH 9 September 2011.  
 21 Suzanne Gleeson 'Social Determinants of Health' 2008 [www.healthpromotion.org.au](http://www.healthpromotion.org.au)  
 22 Graham Lloyd 'A decline in soil quality is posing a colossal problem for the world' Weekend Australian 12-13 February 2011. Wendy C. Quayle 'Biochar potential for soil improvement & soil fertility' CSIRO Land and Water 2010 [http://www.iirc.org.au/farmer\\_ff/pdf\\_1182/Biochar%20\\_a%20means%20of%20storing%20carbon.pdf](http://www.iirc.org.au/farmer_ff/pdf_1182/Biochar%20_a%20means%20of%20storing%20carbon.pdf)  
 23 Video clip [http://www.ourfoodfuture.com/1168/michael-pollan-at-the-opera-house/utm\\_source=feedburner&utm\\_medium=email&utm\\_campaign=Feed%3A+OurFoodFuture+%28Our+Food+Future%29](http://www.ourfoodfuture.com/1168/michael-pollan-at-the-opera-house/utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+OurFoodFuture+%28Our+Food+Future%29)  
 24 <http://www.abc.net.au/rural/news/content/201209/s3592567.htm> [www.ausbiotech.org](http://www.ausbiotech.org) <http://www.columban.org.au/our-works/JPIC-Justice-Peace-Integrity-of-Creation/Genetic-Modification-of-Food/> Joe Cummins and Mae-wan Ho <http://www.i-sis.org.uk/GMPBIGT.php> <http://www.iner.org.au/content.php?pageID=3>  
 25 [http://www.soilhealth.see.uwa.edu.au/soil\\_biology](http://www.soilhealth.see.uwa.edu.au/soil_biology); Victorian Parliament Soil Inquiry 2010 <http://www.parliament.vic.gov.au/enrc/article/1130>  
 26 [http://www.soilhealth.see.uwa.edu.au/soil\\_biology](http://www.soilhealth.see.uwa.edu.au/soil_biology) <http://www.youtube.com/playlist?list=PL7F29138B37C71840>

## The science of soil carbon

Microbiologists explain that the process of soil creation moves through stages. The process began some 420 million years ago: the combined action of rock, single cell bacteria, microbes, fungi, organic matter, carbon, worms and the like, culminate in the humus which supports plant life and the animals which depend on it.<sup>25</sup> Healthy microbial life in soils mothers the process of collecting nutrients and excluding poisonous elements.

Carbon is an active component in soils.<sup>26</sup> As farming evolved, humans learned by trial and error over millennia to identify the qualities of soils that grew healthy food and carefully maintained those soils. Their teacher was nature's recycling system. Farming can disrupt nature's system by failing to maintain its needed living organic mix, or it can manage the process with respect.



### Burying atmospheric carbon in soils

While efforts to promote energy efficiency and find alternative sources of energy to fossil fuels are essential to halt rising levels of greenhouse gas emissions, taking carbon out of the atmosphere is the other side of an equation.

'Carbon farming' positively manages to increase the amounts of carbon deposited in soils.<sup>27</sup> Nature managed this service in the past, a work of God as Wisdom for those of faith. Australia has millions of hectares of land under management so its potential as a carbon sink is enormous at even a few tonnes per hectare per year.<sup>28</sup> Four steps are suggested:

- First, recognise the earth's cyclic rhythm of carbon gas emissions and absorption, which ideally cancel each other out.

- Second, enlist the understanding of players in the agricultural industry about this natural cycle and their commitment to work with it.
- Third, develop step-by-step farm techniques and on-farm management practices on how to bury carbon in soils.
- Fourth, put in place the financial mechanisms that promote management – for example, make measurable amounts of soil carbon a trading commodity.

Managing ocean estuaries and repairing wetlands are emerging as other focuses for managing carbon retention in nature. Like soils, managed water systems can not only improve fish habitat but also sink carbon in marine life.<sup>29</sup>



<sup>27</sup> [www.countrycarbon.com.au/](http://www.countrycarbon.com.au/) [www.climatechange.gov.au/cfi/www.parliament.vic.gov.au/...inquiry-into-soil-carbon-sequestration](http://www.climatechange.gov.au/cfi/www.parliament.vic.gov.au/...inquiry-into-soil-carbon-sequestration) [http://en.wikipedia.org/wiki/Carbon\\_cycle](http://en.wikipedia.org/wiki/Carbon_cycle)  
<sup>28</sup> Walter Jehne Carbon Farmers of Australia [www.carboncoalition.com.au](http://www.carboncoalition.com.au) [http://www.rodaleinstitute.org/files/Rodale\\_Research\\_Paper.pdf](http://www.rodaleinstitute.org/files/Rodale_Research_Paper.pdf)  
<sup>29</sup> Alexandra Roginski 'Capturing blue carbon benefits' National Parks Magazine August 2012.

## Water and climate change

The government's initial proposals for a Murray-Darling Basin (MDB) Plan focused the attention of many Australians on water.<sup>30</sup> Water issues are closely related to climate change so thinking citizens need to engage with the ongoing development of the MDB plan.<sup>31</sup> Major points include:

- The calculation of available water for the MDB Plan has been based not on one decade of drought but on 100 years of river records. Added to this data is the likelihood of fewer and more irregular water flows as climate change begins to bite.
- The Plan looks for cooperation over seven years to achieve its aims.
- The Plan opened up systematic local avenues of consultation to all citizens, a position congruent with Catholic teaching on subsidiarity.<sup>32</sup>
- The draft gets the order of dependence right – first restore a healthy river ecosystem knowing that it in turn supports agriculture, which then supports vibrant rural towns and communities. Historically, irrigation-based cultures collapsed out of the pride involved in trying to change that order.
- A May 2012 MDB Draft Plan included legitimate community concerns.
- Draft proposals reduce by half the volume of ground water that can be taken by mining and agriculture enterprises.
- Water limits have been set on rice growing, but players in the cotton industry still want to harvest medium flood flows for their private use.

The Basin water proposals have proved controversial. Divisions have flared between scientists, irrigators, environmentalists and town leaders, resulting in heated public outbursts. Towns particularly fear the loss of jobs in service industries supporting irrigation.<sup>33</sup> Environmentalists advocate measures such as restoring



wetlands and protecting free-flowing 'wild' rivers to preserve the basin's ecological life.<sup>34</sup> Other commentators range wider to question the energy sources used to pump and treat water.<sup>35</sup>

Disputes have even arisen between land users themselves – flood plain farmers, landholders near the Murray's mouth, dairy farmers in Victoria, cotton growers and horticulturists. Often the truth is distorted by people trying to favour their own group. Disputes have also

arisen about which adjustment measures have priority – building new water-saving infrastructure, government buy-back of licences, or the timing of river flows. Much of the friction is being pushed by agri-business financial managers who must learn that they cannot dictate to nature's cycles.<sup>36</sup>

*One major issue is Australia's reserves of ground water for town and agricultural use.*<sup>37</sup> Farmers worry about ground water pollution and over-use. City communities as diverse as Bankstown, west of Sydney, and Salisbury, north of Adelaide, have developed action plans, assisted by a National Centre.

A growing concern is the *Great Australian Artesian Basin*.<sup>39</sup> This is Australia's largest underground water source with its aquifers spanning four States. The Basin reserves are limited and coming under greater pressure to supply mining operations. Maybe the Catholic bishops in the dioceses the Artesian Basin spans could come together to offer a Catholic reflection similar to the one they offered for the Murray-Darling Basin in their Statement 'The Gift of Water':

*'... the Murray-Darling Basin ... is our Galilee, our special place under the Southern Cross. It is a place where we encounter God in quiet moments and are called to live out our vocations before God.'*<sup>40</sup>

30 Liz Hannan 'Newsmaker: The Murray-Darling Basin' Weekend SMH 3-4 December 2011. [www.mdba.gov.au/draft-basin-plan](http://www.mdba.gov.au/draft-basin-plan)

31 [www.environment.gov.au](http://www.environment.gov.au)

32 Charles Rue 'Truth drowned in river system's fight for life' 29 Nov 2011 Eureka Street. <http://www.eurekastreet.com.au/article.aspx?aeid=29257>

33 Graham Lloyd 'Great dividing rage over water' Weekend Australian 23-24 October 2010. David Wroe and Tom Arup 'Murray basin rescue plan has opponents shaping up' SMH 28 November 2011. Ruth Williams 'How the resources boom split the golden state' Weekend SMH 3-4 December 2011.

34 Jamie Pittock 'Chain Reaction' April 2012 [www.foe.org.au/chain-reaction](http://www.foe.org.au/chain-reaction). Tom Arup 'Scientists reject plan to save Murray-Darling' SMH 19 Jan 2012.

35 Paul Sheehan 'Energy use sucking up a precious resource' SMH 9 January 2012.

36 Deborah Snow and Debra Jopson 'Liquid gold' Weekend SMH 4-5 Sept 2010.

37 Jim O'Rourke 'Out of sight, out of mind: groundwater in peril' The Sun-Herald 19 Aug 2012.

38 Craig Simmons <http://www.groundwater.com.au/research.php>

39 <http://www.derm.qld.gov.au/factsheets/pdf/water/w68.pdf>

40 [http://www.catholicearthcare.org.au/pdf/TGOW\\_Full.pdf](http://www.catholicearthcare.org.au/pdf/TGOW_Full.pdf) [http://www.theworkofgod.org/Library/catholic/water\\_prayer.htm](http://www.theworkofgod.org/Library/catholic/water_prayer.htm) [http://www.praying-nature.com/site\\_pages.php?section=Eco-Prayers&category\\_ref=62](http://www.praying-nature.com/site_pages.php?section=Eco-Prayers&category_ref=62)

# Coal seam gas and mining expansion

The combination of coal seam gas (CSG), coal, gold and other mining developments has divided communities, both rural and city.<sup>41</sup> Farmers who initially supported CSG wells on their farms as an additional source of income often feel deceived as they had little indication of the practices of extraction companies.<sup>42</sup> Citizens slowly came to realise that the 'fracking' process is a thirsty one, and in addition it poses a real threat of a cocktail of chemicals poisoning MDB waters used for agriculture.<sup>43</sup>

The extraction industries have provoked the forging of protest alliances in defence of country. These alliances:

- organise civil disobedience such as the 'Lock the Gate' movement to protect food-growing land<sup>44</sup>
- campaign to protect the natural beauty of areas, especially as tourist destinations<sup>45</sup>
- rally to protect the spiritual meaning of undisturbed country threatened by projects, such as the James Price Point development, and heal split communities<sup>46</sup>
- face intimidation from security guards and police supported by police surveillance<sup>47</sup>
- suffer the threat of legal moves such as 'Strategic Lawsuit Against Public Participation' (SLAPP) actions<sup>48</sup>
- protest the imposition of new CSG and coal exploration licences, and the incursion of foreign capital<sup>49</sup>
- blame poisoning of the marine life in Queensland's Gladstone harbour on dredging to upgrade the port for liquid natural gas (LNG) export<sup>50</sup>
- flag further proposed development of US-style shale-oil wells in remote areas of Australia such as the Cooper Basin<sup>51</sup>
- demand a future after mining.

The overseas experience of GSG in particular has not been pretty.<sup>52</sup> The US documentary *Gasland* adds awareness of its dangers.<sup>53</sup> However, polluters often seem not to care as climate change comes closer to running away from us.<sup>54</sup>

Governments at all levels and some unions seem to have been made captives of the extractive industries.<sup>55</sup> The NSW Minerals Council



41 Debra Jopson and Ben Cubby 'Boom and bust: gas battle turns toxic' SMH 25-26 Sept 2010. Ben Cubby 'Coal seam damage to water inevitable' SMH 3 August 2011. Anthony Klan 'Is coal-seam gas worth the risk?' Weekend Australian 23-24 September 2011. Tony Barrass 'Farmers take the fight to the thirsty miners' Weekend Australian 29-30 Jan 2011. Imre Salusinszky CSG fight is about to ignite 18-19 Aug 2012 Weekend Australian.  
 42 Ben Cubby 'Toxins found at third site as fracking fears build' SMH 19 11 10. 'Bubbling, orange water makes your blood boil' wrote Sharyn Cullis in a letter published in SMH 10 March 2011.  
 43 Ben Cubby 'Tests reveal contaminated water near gas site' SMH 9 December 2011. Ben Cubby 'AGL starts work on Sydney coal seam gas well' SMH 23 August 2012. Friends of the Earth Chain Reaction August 2012 <http://foe.org.au/media>. Ben Cubby 'Doctors raise alarm over toxic coal seam gas leaks' SMH 17 November 2012.  
 44 Graham Lloyd 'Rural Rage makes odd bedfellows' Australian 9 July 2011. Debra Jopson 'Farmers demand halt to all new mining' SMH 27 Oct 2010. Sean Nicholls 'Farm gate open to give miners access' SMH 15-16 October 2011.  
 45 Bruce Tyrrell 'Stealing the Hunter's beauty robs it of a future' SMH 29 02 12.  
 46 Lyndon Schneiders 'Miners hiding behind Barrett's police army' Weekend Australian 19-20 May 2012. Graham Lloyd 'Kimberley heritage sold out by "conspiracy" of deceit' Weekend Australian 8-9 September 2012.  
 47 Phillip Dorling 'AFP spies targeting green activists' SMH 7 January 2012. Graham Lloyd 'Guerrilla protest hits gas hub tests' Weekend Australian 19-20 May 2012.  
 48 Clive Hamilton 'Tackle Big Coal at your own risk' SMH 3 February 2011.  
 49 Cosima Marriner 'Just say no: NSW warned against coal gas mining' Sun-Herald 15 May 2011. Sarah Jane Tasker and Mitchell Nadin 'Protest builds over mining land grab' Weekend Australian 23-24 August 2011.  
 50 Graham Lloyd 'Bottom of the harbour' Australian 1 January 2012. Nicky Phillips 'Great Barrier Reef is at a crossroads, says UN mission' SMH 7 March 2012.  
 51 Paddy Manning 'Why shale gas is still the next big thing' SMH 19-20 May 2012.  
 52 Amos Aikman and Anthony Klan Academics warn of looming CSG 'mess', Weekend Australian 17 09 2011.  
 53 Rowan Dean 'Gas ads must take real people seriously' SMH 14 09 2011. Tosh Fox [www.gaslandthemovie.com/](http://www.gaslandthemovie.com/)  
 54 Paddy Manning 'Polluters will pay: when is the crucial question' SMH 5 November 2011. Seth Borenstein 'Greenhouse emissions exceed worst case scenario' Associated Press in SMH 2-5 November 2011. Ben Cubby and David Wroe 'Greenhouse cuts are not enough, says UN report' SMH 25 November 2011.



was reported as having monitoring and compliance commitments removed from government policy.<sup>56</sup> Mining exploration leases may have been granted to people connected to political power.<sup>57</sup> The NSW government is pulling back on environmental evaluations while touting new land use procedures as ‘protections’.<sup>58</sup> The monitoring of projects can be poor.<sup>59</sup> ‘The reality of Australia’s so-called world’s best practice regulation is that both state and federal governments lack the willingness and capacity to enforce the environmental limits set out in their approval criteria’ writes Paul Cleary.<sup>60</sup>

The Federal government set a bad decision-making precedent with the estimated \$100 billion shakedown of East Timor over oil rights.<sup>61</sup> It seems little concerned about the lies told by companies about fixing the damage done by major oil spills off New Orleans and Ashmore Reef. Alarmingly, the Federal government has approved a more risky venture in the Great Australian Bight, drilling at 4,500 metres.<sup>62</sup> Government agencies must be trustworthy in large and small matters.<sup>63</sup>

It is a huge task to collect information so as to make an ethical judgment on whether the behaviour of resource extraction companies is immoral or otherwise. A very useful resource is Matthew Benns’ book *Dirty Money*, which carries a sobering view of the behaviour of many Australian resource companies in Australia and overseas.<sup>64</sup> Systemic mining malpractice is not merely the practice of a few bad apples; it keeps recurring.<sup>65</sup>

The ‘elephant in the room’ is the limited supply and life span of resource extraction developments in Australia. In 1997, black coal reserves were calculated to last 190 years, but under pressure to mine more quickly, this figure has already been reduced to 90 years.<sup>66</sup> Copper and silver may last even shorter times.

55 Sean Nicholls ‘Coal licence for union boss sparks ICAC investigation’ SMH 12-13 November 2011.  
 56 Heath Aston ‘Coalition lets miners write lands policy’ SMH 20 January 2011.  
 57 Paul Cleary ‘Fertile areas face open-cut threat’ Weekend Australian 9-10 April 2011. Kate McClymont and Linton Besser ‘Eddie’s Empire’ SMH 17 November 2012.  
 58 Graham Lloyd King coal still reigns The Australian 28 April 2012. <http://www.planning.nsw.gov.au/slurp>  
 59 Michael West ‘The LNG plants that never were’ SMH 29 September 2012.  
 60 Paul Cleary ‘Mine-Field Black Inc.’, Schwartz Media Collingwood, P.73  
 61 <http://www.smh.com.au/articles/2004/05/24/1085389334827.html>  
 62 Matthew Benns, *Dirty Money: The True cost of Australia’s Mineral Boom*, Heinemann book, Random House, North Sydney, 2011, p. 140. <http://www.heraldsun.com.au/business/breaking-news/bp-to-search-great-australian-bight-for-oil/story-e6fr7ko-1226033774344>  
 63 Kelsey Munro ‘Fishermen furious over move to increase effluent in Hawkesbury’ SMH 27 September 2011. Ross Gittins ‘Floods expose national loss of loyalty and respect for leaders’ SMH 3 February 2011. Peter Martin ‘Bureau of Statistics admits bundling on jobless figures’ SMH 3 July 2012.  
 64 Charles Rue Review: <http://www.columban.org.au/publications/the-far-east/2012/the-far-east-may-2012/dirty-money/>  
 65 David Wroe and Brian Robins ‘Greens want investigation into gold miner’ SMH 28 December 2011.  
 66 Benns *Dirty Money* p. 252.

## Tax regime

Taxes can either distort or make more efficient the national use of fossil fuels to better reduce greenhouse emissions. Some criticise the small amount of tax paid by mining companies or the frittering away of the nation's 'natural capital' as a buffer against another global financial downturn.<sup>67</sup>

However, economist and commentator Ross Gittins says governments have to go beyond merely depending on the mechanism of a carbon price to bring adequate changed behaviours.<sup>68</sup> Carbon price is no panacea. In reality, the federal government will receive less revenue as resource taxes drop.<sup>69</sup> Maybe Australians will need to pay more direct tax if they want government to provide benefits at their present level while it deals positively with the climate challenge. Proven alternative energy technologies need tax breaks and research grants need to be better focused.<sup>70</sup> Even the politically disastrous 'pink batt' installation program may prove to be positive in reducing carbon emissions and family living costs, and worth the government intervention.

The use of tax havens by companies has a negative impact on the tax system of all nations including Australia.<sup>71</sup> Church-sponsored groups such as Jubilee lobby for a more just international tax regime.<sup>72</sup> A related practice is resource exporters selling to mother companies offshore at below market price to undervalue taxable incomes. African and other nations are plagued by this practice and looked to the Rudd government's tax reforms to set the example of a new 'best practice'. However, a media blitz waged by resource companies sabotaged this hope.<sup>73</sup>

Debate on resources taxes has opened up wider aspects of the overall tax regime. Examples such as land tax exemptions or the capital gains-free status of private homes have the effect of 'locking-in' present tax structures.<sup>74</sup> The tax regime surrounding rebates on

fossil fuels for the extraction and freight sectors needs to be phased out while subsidies for public transport need to be raised.<sup>75</sup> Even the generous breaks given to the high end of the Australian superannuation regime has come under criticism.<sup>76</sup> Other reforms suggested to better manage climate risk: lower disaster relief and eliminate taxes on insurance.

But some commentators vigorously defend low taxes on extraction industries and argue against demonising 'big business'.<sup>77</sup> Some argue that taxes will hit growth and are out of step with the rest of the world.<sup>78</sup> Some, like the Australian Greenhouse Industry Network,



propose phasing out existing alternative energy programs and want the right to buy cheaper pollution permits overseas.<sup>79</sup>

There are growing signs of interest in alternative financial systems for Australia: credit unions, cooperatives and ethical investment institutions. Even farmers' markets are a sign of local reliance rather than dependence on big institutions. Subsidiarity is an established principle in Catholic social teaching.

67 Paul Cleary 'What's mined is theirs to spend, and fast' Weekend Australian 13-14 August 2011. George Megalogenis 'To stimulate the flagging economy, look no further than resources tax' Weekend Australian 13-14 August 2011. Ian Dunlop 2012 <http://climatesummit.org.au/summit-presentations/>

68 Ross Gittins 'Carbon price not the panacea that Gillard makes it out to be' SMH 9 Feb 2011. Ross Gittins 'A carbon price can't save the planet by itself' SMH 12-13 Feb 2011. Lenore Taylor and David Wroe 'Carbon tax leaves big polluters better off' SMH 6 September 2012.

69 Ross Gittins 'Tax base springs leak and revenue is draining away' SMH 25-26 August 2012. Andrew White and Annabel Hepworth 'New tax won't hit us: gas, oil giants' Weekend Australian 25-26 August 2012. Matt Chambers 'Low prices give big boys an out on mining tax' Weekend Australian 15-16 September 2012.

70 Elizabeth Farrelly 'Clean energy alternatives to allay Big Coal's flood of tears' SMH 20 January 2011. Graham Lloyd 'Buried treasure: good uses for greenhouse gas' Weekend Australian 20-21 November 2010. [www.beyondzeroemissions.org/zero-carbon-australia-2020](http://www.beyondzeroemissions.org/zero-carbon-australia-2020)

71 <http://www.abc.net.au/radionational/programs/lawreport/whistleblower/4266050>

72 Tax Justice Network [www.taxjustice.net](http://www.taxjustice.net) Jubilee [www.jubileeaustralia.org.au](http://www.jubileeaustralia.org.au)

73 Bennis Dirty Money p 23.

74 Stuart Washington 'Tax homes and control mine boom, CEOs urge' SMH 26 February 2011. David Wroe 'Huge tax shake-up advised as climate changes' SMH 27 April 2012.

75 Adele Ferguson 'Fast Trains could overtake new airport' SMH 18-19 September 2010. Jacob Saulwick 'Sydney to Melbourne rail trip in three hours' SMH 4 August 2011. Jacob Saulwick 'Trains running a decade late' SMH 11-12 June 2011. Andrew West 'NRMA hands O'Farrell \$44b wish list for top six road proposals' SMH 31 August 2011.

76 Ross Gittins 'Fat cats that got cream in supertax deal are breaking the bank' SMH 15 August 2012.

77 Andrew Burrell 'Tax Returns' Weekend Australian, Eight-page Special Report, 3-4 December 2011. Christian Kerr 'The pernicious effect of conspiracy theories' Weekend Australian 27-28 August 2011.

78 Judith Sloan 'Carbon tax to hit profits and growth' Australian 7 July 2011. Paul Sheehan 'Biting the boom that feeds us' SMH 31 Nov 2011. Greg Sheridan 'It's madness to sacrifice ourselves for nothing' Weekend Australian 9-10 April 2011.

79 Lenore Taylor 'Emitters' lobby calls for cull of climate programs with carbon tax' SMH 10 March 2011.

## International aspects of climate change

Australia does not have a good record with regard to international agreements on limiting global greenhouse emissions, and is seen to align with the high-emitting developed nations. In negotiations it has lobbied for exemptions and low emission targets, and displayed little understanding of developing countries.<sup>80</sup>

Australia's Pacific neighbours can expect that cyclones and hurricanes will be more severe as a result of climate change and their predicament and reactions need to be understood.<sup>81</sup> Relations with forest- and gas-rich PNG must be more sensitive since it is an emerging power with population and money.<sup>82</sup> In Asia water resources could become the focal point of conflict between India and Pakistan.<sup>83</sup> However, Australian trade practices, aid policies and alternative energy-technology transfers are often tailored to only benefit Australian companies.<sup>84</sup>

Former Australian Foreign Minister Gareth Evans argues that as a middle power, Australia has to be a responsible international citizen.<sup>85</sup> He argues that good values and national interest are not to be separated and that a cooperative approach rather than pure self-interest or confrontation will improve bilateral relations. He notes that as a nation Australia is respected for its role in forging international agreements on chemicals, in problem-solving in Timor and Cambodia, in the

formation of the G20, and the way it handled the world financial crisis. This experience could be brought to global climate change negotiations. This will take a degree of self-confidence that does not automatically align national policies with those of countries like the United States.<sup>86</sup>

China's projected increased greenhouse gas emissions are often used as a bogymen to derail debate on energy issues in Australia and undermine international agreements.<sup>87</sup> But China:

- signed a pact to set its own targets for emission reductions and monitor them, that is, lowering the energy used per unit of production
- has the largest deployment of renewable energy in the world
- has closed more dirty coal power plants than the total Australian energy output
- is building coal power plants that are more efficient than any in Australia
- has started a cap and trade carbon scheme in several Provinces with a combined population of 250 million
- has reduced by 10 per cent per quarter the cost of producing solar photovoltaic cells.<sup>88</sup>



80 <http://www.climatechange.gov.au/government/international/international-climate-change-negotiations/copenhagen-accord.aspx>

81 Amos Aikman 'Climate review raises heat in the Pacific' Weekend Australian 26-27 November 2011.

82 Rowan Callick 'PNG is on the cusp of an extraordinary economic, social and political transition' The Australian 26 March 2011. Brian Robins 'Miners tap resources the Melanesian way' SMH 18-18 August 2012.

83 Ben Doherty 'Source of life becomes the threat' SMH 19-20 May 2012.

84 [www.aidwatch.org.au](http://www.aidwatch.org.au) Adam Morton 'Believe it or not, climate heats up' SMH 1-2 Jan 2011.

85 Public Affairs TV Channel 9 June 2012.

86 Malcolm Fraser 'Politics, Independence and National Interest' 6 June 2012. <http://australianpolitics.com/2012/06/06/malcolm-fraser-whitlam-oration.html> Peter Hartcher 'Any China conversation better than none at all' SMH 14 August 2012.

87 Ross Gittins 'Other countries are doing far more than us to cut emissions' SMH 17 November 2010. Climate Institute News Release 'Selective quoting and misrepresentation does disservice to the public and climate change debate' 15 August 2011.

88 Tim Flannery 'Climate Commission Consultation' Parramatta 2012. Graham Lloyd 'Beijing lashes Canberra as carbon talks stall' Weekend Australian 26-27 May 2012.

# Judge



*“Paul VI recalled in the Progress of Peoples that man cannot bring about his own progress unaided, because by himself he cannot establish an authentic humanism. Only if we are aware of our calling, as individuals and as a community, to be part of God’s family as his sons and daughters, will we be able to generate a new vision and muster new energy in the service of a truly integral humanism. The greatest service to development, then, is a Christian humanism.”*

Pope Benedict XVI’s Encyclical ‘Truth in Love’ July 2009 <http://www.zenit.org/article-26386?l=english>

As a nation we need to cultivate values by which to judge responses to climate change, and Catholic Social Teaching helps in this process. It springs from a spiritual vision of earth and humanity as linked in the mystery of God’s grace, rooted in the Scriptures and based on clear ethical principles (pages 12–17).

This section adds additional criteria: ecological vocation, over-development, and preserving earth’s biodiversity. The essential role of the media to present trustworthy stories on climate change needs scrutiny. To present coal-seam gas and bio-gas as ‘transition fuels’ needs evaluation.



## Ecological vocation

Father Gerard Kelly, in a paper at a Conference on Philosophy, Religion and Culture in 2010, said:

*‘... when theology takes science seriously, and each respects its proper domain, then the evidence of science can contribute to theological reflection on the meaning of salvation.’<sup>89</sup>*

Expanding notions of our relationship with the earth is key. *Jesus as God-with-us leads to a deifying transformation.* This understanding goes beyond purely interpersonal relationships since God is making everything new (Rm 8:19). We know that God is faithful to what God has created, so people of faith are challenged to be faithful to God’s creation. We live in a fine-tuned universe.<sup>90</sup>

At Assisi in 2009 Catholics were encouraged to

engage with the discoveries of the cosmos and integrate them into Catholic teaching, including the Eucharist.<sup>91</sup> Father Kelly encourages us to see how science is *helping to explain earth processes and the human connection with other creatures.*<sup>92</sup> In this Year of Grace it is good to remember that Jesus was rooted in this earth.<sup>93</sup>

Vocation is a broad category, not to be confined to a vocation to religious life.<sup>94</sup> The discipline of scientific investigation can be seen as a vocation: a God-given call to fulfil a special role of service to the community and to find fulfilment there. In showing respect for the scientific profession we may help restore the language of vocation for other professions such as teaching and marriage.



Some put their hope in a multi-discipline approach to the climate challenge with young people using the power of social networking to break the business stranglehold on politics – sciences, humanities and arts, cultural and religious traditions, all converging in a coming together of knowledge.<sup>95</sup> *A positive use of the social media could be seen as a vocation for young people*, developing Pope John Paul II's call to 'ecological vocation'. Art events exploring climate change would be powerful.

The environmental writings of Pope Benedict XVI have been published.<sup>96</sup> On 3 June 2012 in Milan he explored the vocation of growing a just world and harmonious earth where families can better belong:

***'God's plan, as well as experience, show that the one-sided logic of sheer utility and maximum profit are not conducive to harmonious development, to the good of the family or to building a just society, because it brings in its wake ferocious competition, strong inequalities, degradation of the environment, the race for consumer goods, family tensions.'***

Pope Benedict XVI in *Caritas in Veritate* calls us to honour 'the covenant between human beings and the environment'. He has also called Church members to enter the public square as a vocation. Combining these ideas on covenant and vocation we can help in offering society an alternative way of being human in an era of climate change.<sup>97</sup> This is neither easy nor a one-directional process. In public debate often *a bundle of issues have to be weighed up together*. The greater good might be served by accepting the package even if that outcome is not wholly satisfactory to Catholic principles.<sup>98</sup> Respect and negotiation leave the public square less toxic.

## Prayer of Saint Basil

O God,

Enlarge within us a sense of fellowship

with all living things,

our brothers and sisters the animals,

to whom Thou gavest the earth as their home

in common with us.

We remember with shame that in the past

we have exercised the high dominion of humanity

with ruthless cruelty,

so that the voice of the earth,

which should have gone up to you in song,

has been a groan of travail.

May we realise that

they live not for us alone but

for themselves and for Thee, and that

they love the sweetness of life.<sup>105</sup>



89 Gerard Kelly 'A Systematic Theologian Reflects on Saving the Environment', paper at Conference on Philosophy, Religion and Culture, 2 Oct 2010.

90 Rich Heffern 'The fine-tuned universe' National Catholic Reporter 6 and 7 June 2011.

91 S McDonagh and D Edwards 'Creation at the heart of Mission', Seminar, Assisi, 12-16 May 2009 [http://picformation.wikispaces.com/EN\\_Assisi09](http://picformation.wikispaces.com/EN_Assisi09)

92 Denis Edwards Jesus and the Natural World Garratt Publications Mulgrave 2012.

93 PEJ Publications Connections <http://www.columban.org.au/our-works/peace-ecology-justice/peace-ecology-and-justice/> July 2012.

94 Clare Condon 'Let's broaden our understanding of vocation', The Good Oil, August 2012 <http://www.goodsams.org.au/good-oil/lets-broaden-our-understanding-of-vocation/>

95 <http://www.guardian.co.uk/global-development/interactive/2012/jun/19/rio20-interactive-world-better-worse>

96 Pope Benedict XVI The Environment Our Sunday Visitor April 2012, [www.osv.com/](http://www.osv.com/)

97 Michael Putney 'The Mission of the Church on Life Matters in Contemporary Australian Society' Australasian Catholic Record October 2008 v85 n4.

98 Voting need not 'represent an illicit cooperation with an unjust law, but rather a legitimate and proper attempt to limit its evil aspects', John Paul II Gospel of Life 73.

# Biodiversity

**B**iodiversity is a major indicator of climate change and preserving biodiversity is a measurable criterion for making judgements.<sup>99</sup> For believers it is about God given life. Perhaps for Australia, the koala under threat of extinction is our ‘canary in the mine’.<sup>100</sup> In line with the 1991 Convention on Biological Diversity, government agencies across Australia are identifying eco-communities under threat and implementing conservation plans.<sup>101</sup> Alarmingly, in September 2012 the NSW government lowered the standards of environmental assessment of the biodiversity and other threats that developments pose.<sup>102</sup>

A poem of St Basil for the early church speaks of an intimate bond between humanity and animals. He calls us to re-connect the doctrines of redemption and creation (pages 29-31). Pope Benedict recently quoted the radical words of St Bonaventure’s Sermon on the Transfiguration:

***‘With the stone [Christ] shares existence; with plants he shares life; with animals he shares sensation; and with angels he shares intelligence. Thus all things are transformed in Christ since in his human nature he embraces something of every creature in himself when he is transfigured.’***

Life on earth matters. Fathers Denis Edwards and Sean McDonagh have both written on what the threat to



biodiversity means for people who believe in God as Life-Giver.<sup>103</sup> McDonagh wrote:

***‘... extinction will rob our planet of the ability to sustain many forms of life, possibly our own ... Now the evolutionary future of the planet is quite simply in the hands of this generation.’***

In the first section I argued that using new language can change attitudes: moving from ‘jungle’ to ‘rainforest’; ‘swamp’ to ‘wetland’. Appreciating the words Aboriginal people value, such as ‘country’ and ‘respect for land’, grows a new sensitivity within us.<sup>104</sup> Images in Aboriginal rock paintings under threat from extraction industries help us to judge what is of lasting value in this ancient land.



99 <http://www.csiro.au/Portals/Media/NRSreport2012.aspx>

100 <http://www.abc.net.au/news/2012-08-20/dramatic-drop-nsw-qld-koala-numbers/4210428>

101 <http://www.environment.gov.au/biodiversity/threatened/> <http://www.csiro.au/en/Outcomes/Environment/Biodiversity/Biodiversity-ecology-overview.aspx> <http://www.acfonline.org.au/news-media/releases/laws-must-be-stronger-halt-biodiversity-decline>

102 [www.environment.gov.au/epbc/review/index.html](http://www.environment.gov.au/epbc/review/index.html) Native Vegetation [www.nccnsw.org.au](http://www.nccnsw.org.au) Sean Nicholls Entire state up for grabs in coal seam gas and mining rules SMH 12 September 2012 and Editorial.

103 Denis Edwards Breath of Life: A Theology of the Creator Spirit Orbis Books NY 2004, p. 3. Sean McDonagh The Death of Life: The Horror of Extinction Dublin 2004, p. 92. <http://www.columban.org.au/our-works/JPIC-Justice-Peace-Integrity-of-Creation/Biodiversity-rooted-in-Genetic-Diversity/Biodiversity-rooted-in-Genetic-Diversity/>

104 Elizabeth Farrelly ‘Mystery dies when we don’t see ourselves as part of eternity’ SMH 28 April 2011. Caring for Country <http://www.nrm.gov.au/>

105 Quoted in McDonagh (2004).

# Limits to development

The dream of unlimited growth based on increased energy use is a dangerous one for climate change. *'No' can be a valid response to a planning application.* Not every financial dream can be acted on if respect for other people and the environment is taken into account.<sup>106</sup> The bully-boy tactics of some development companies are exemplified by their threats to invest overseas, and they had to be reined in by industry leader Gail Kelly.<sup>107</sup>

Pope John Paul II called our attention to 'super development'.<sup>108</sup> Rapid development based on massive debt levels can be particularly dangerous, as 800 years of financial history teaches.<sup>109</sup> There can be wisdom in slowing parts of the economy.<sup>110</sup>

*Two groups that see the reality of climate change clearly are the Department of Defence and insurance companies.* Long-term military planners foresee the possibility of massive social collapse and the forced migration of millions of survivors of floods and droughts. As a result of defective planning, some Queensland towns have expanded on flood plains and residents there may no longer be able to obtain insurance. Understanding this, citizens need to hold Governments at all levels accountable for their planning decisions about coping with floods, sea rises and housing design.<sup>111</sup>

Fast-tracking developments leads to a skills shortage and rampant wage growth in one sector contrasted with redundancies in other sectors. Growth based on employing short-term workers from overseas adds another distortion to the jobs market.<sup>112</sup> Also, the human cost of rapid resource-related developments needs attention.<sup>113</sup> Local social disruption and psychological trauma has recently been seen in Darwin.<sup>114</sup> The Catholic Bishops say respect for the 'Sabbath Rest' gives:

***'... time for the full development of people through relaxation ... families are being pulled apart by social and economic structures that dehumanise and compartmentalise people, and***

***the deny them time together ...'***<sup>115</sup>

Restructuring the economy to reduce greenhouse gas emissions can be combined with justice and compassion for workers, new jobs and retraining. Cases vary: the effects of job losses can be very different, as we see by comparing job losses in the solar division of BP when it closed its Australian plants to those in the aluminium industry, a high user of power. A 2010 paper explores how Australia can create 770,000 extra jobs by 2030 in the traditional industries of agriculture, mining, manufacturing and the services sector through investing in innovation.<sup>116</sup>

How to reinvent business ethics, how to give voice and act on your values in the work place is the focus of ethics teacher Mary Gentile.<sup>117</sup> Rather than a 'shalt not' list of constraints, her focus is to help grow moral competence – a can-do approach. She suggests a focus on practice where all players can be satisfied that they are both living by their values and being a positive force for the common good.

The combined localised experiences of Caritas International make it a major player in international conferences on sustainable development. Caritas states:

***'Integrated Community Development is not limited to economic growth but is holistic, covering all spheres of life – economic, political, cultural, personal and spiritual. It promotes the dignity of the human person, equality between every person, and the common good of all people in the community.'***<sup>118</sup>

Caritas Australia puts development in the context of climate change with two particular judgements: changes to our climate primarily affect the world's poorest people, and natural disasters such as droughts, floods and cyclones are increasingly frequent and the majority of them are occurring in developing countries.<sup>119</sup>

<sup>106</sup> Editorial 'Time to hit back against dam-buster mentality' Weekend Australian 17 September 2011. Andrew Burrell 'Backlash builds as BHP oil hunt closes on reef' Weekend Australian 20-21 October 2012.

<sup>107</sup> Elizabeth Knight and Philip Coorey 'BHP boss threatens to invest off shore' SMH 17 May 2012; Eric Johnston, 'Hands off Julia Gillard, says Westpac boss', SMH 8 May 2012.

<sup>108</sup> John Paul II, *Centesimus Annus* (1991) No 35–40; *Sollicitudo Rei Socialis* (1987) Nos 28–34; *Redemptor Hominis* (1979) No 8, 55, 90, 92.

<sup>109</sup> Ross Gittins 'Economic history ignored leads to the inevitable' SMH 3-4 September 2011. Carmen Reinhart and Kenneth Rogoff *This Time is Different: Eight Centuries of Financial Folly* Princeton University Press 2009.

<sup>110</sup> Ross Gittins 'Prudence stays constant in a slower economy' SMH 10-11 March 2012.

<sup>111</sup> Jamie Walker and Natasha Bita 'Summer of fury exposes planning failures' Weekend Australian 12-13 February 2011. Ean Higgins 'Councils can jettison UN sea-rise rules' Weekend Australian 8-9 September 2-12, Mitchell Nadin 'Architect decries capital's hasty houses' Australian 15 September 2012.

<sup>112</sup> 'Growth not always good, says minister' SMH 14-15 May 2011.

<sup>113</sup> Report of the American Psychological Association Task Force Psychology and Global Climate Change March 2010.

<sup>114</sup> Nicolas Rothwell 'City of dreams faces another rude awakening: Darwin's gas plant will change the city forever, and probably not for the better' Weekend Australian 12-13 May 2012.

<sup>115</sup> Australian Catholic Bishops Conference Social Justice Statement 2012-1013 *The Gift of Family in Difficult Times*

<sup>116</sup> ACF and ACTU *Creating Jobs – Cutting Pollution: The Roadmap for a Cleaner, Stronger Economy* 2010.

<sup>117</sup> [http://mpegmedia.abc.net.au/m/podcast/2012/05/bia\\_20120522\\_2005.mp3](http://mpegmedia.abc.net.au/m/podcast/2012/05/bia_20120522_2005.mp3) [www.givingvoicetovalues.thebook.com/about/](http://www.givingvoicetovalues.thebook.com/about/)

<sup>118</sup> [http://www.caritas.org/activities/climate\\_change/index.html](http://www.caritas.org/activities/climate_change/index.html) <http://www.fijitimes.com/story.aspx?id=212067> <http://www.caritas.org.au/learn/development-approach>

<sup>119</sup> <http://www.caritas.org.au/learn/global-poverty-issues/climate-justice>

# Morally questionable solutions

Morally questionable solutions to the climate change challenge entice with false options. Five such false hopes have been named: strong economy; 'clean coal'; bio-fuels; carbon trading; and nuclear energy (see pages 21-23). Two other problematic options are promoting the use of natural gases and biomass.

Coal seam gas (CSG) is trumpeted as a replacement for coal. Besides posing contamination risks for agricultural land and water, it gives off significant greenhouse gas emissions.<sup>120</sup> The methane CSG extracts has 20 times the greenhouse impact of natural gas.<sup>121</sup> In addition, the unregulated 'fugitive emissions' that escape from operating multiple CSG drill heads are significantly higher than from a single well.

The argument can be nuanced by presenting extracted gases as 'transition fuels', a bridge along the way towards fossil-free energy production.<sup>122</sup> This argument feeds into a false hope that the transition to fossil-free

energy is simple and quick. All panaceas, even with the worthy aim of pursuing energy efficiency, can play out in practice as limiting the search for ecologically sustainable alternative energy sources.

Similarly, the use of biomass as an energy source is still being promoted.<sup>123</sup> Biomass is plant growth that can be burnt – straw, wood and the like – to fire energy plants. *It only delays gas emissions to when the mass is burnt.* Widely used in poorer countries, it often results in cutting forests and denuding the land, reducing the quality of soils deprived of needed organic matter. Also, like the growing of palm oil trees and grain crops for bio-fuel oil, using biomass often diverts land away from food production.<sup>124</sup> Developed countries should share and finance sustainable energy technology with developing nations so they can leapfrog the false path of using biomass.

<sup>120</sup> 'Biofuels' New Internationalist July-August 2011.

<sup>121</sup> Nicky Phillips and Ben Cubby 'Methane adds fuel to a heated debate' SMH 24-25 September 2011.

<sup>122</sup> Paddy Manning 'Energy analyst turns up heat on new gas projects' SMH 28 October 2011. Ben Cubby 'Gas no good to bridge coal and renewables, says study' SMH 21-22 Jan 2012.

<sup>123</sup> <http://www.i-sis.org.uk/biogasForChina.php>

<sup>124</sup> The Institute of Science in Society 3 November 2010 <http://www.i-sis.org.uk/biofuelsAndWorldHunger.php>



# The media and truth about climate change

Part of *the new reality of the media* is the 24-hour news cycle and talkback radio.<sup>125</sup> These are often exploited by those who question or deny human-induced climate change and provide platforms for apologists such as Viscount Christopher Monckton. Many listeners become like voyeurs who vent their spleen on governments and whoever they perceive as a target.<sup>126</sup> They maybe fail to see through distortions because they lack scientific literacy, confusing science with technology or the policies derived from its findings.<sup>127</sup> Government licences for using the airwaves maybe should be conditional on airing more frequent science-based information on climate change and other topics of social importance. Logic and reason are central to Catholic ethics so truthful reporting on any topic and respect for the scientific method to eliminate error is welcome.

Trustworthy information is crucial in a functioning democracy to help create informed voters. For the moment, *the print media still holds central importance as it still supplies most of the material for radio, TV and online media.*<sup>128</sup>

And yet, irresponsibility seems to be the hallmark of some print media. The *editorial policy the Murdoch Press has come in for particular criticism for its inconsistency* even though Rupert Murdoch himself said in 2007 that climate change posed clear catastrophic threats.<sup>129</sup> Such reporting has helped make Australian attitudes to the science of climate change back and forth.

Another criticism of the Murdoch press is its lack of balance. Items opposing action on climate change outnumber those in favour by a ratio of about four to one.<sup>130</sup> This situation may have arisen out of a *false sense of balance in journalism*, which feels it should give equal space pro and con regardless of credentials. When scientists worldwide accept climate change as reality by a ratio in the high 90s to one, climate sceptics can hardly make a claim to equal media space.<sup>131</sup>

*Trust is the lubricant of social functioning.* Betrayal of trust was the loudest criticism of the Catholic Church when some of its members were accused of sexual misconduct. Media reports on climate change must extend to analysis of its financial aspects. Maybe those who oppose action on climate change choose to deny its reality to preserve a lucrative system of share values, company boom-bust-takeover trades or bank financing practices.<sup>132</sup> Others in society may support these entrenched ways out of fear that moving to a green economy will cost them personally or spark a change in cultural values.

Invective and parody have entered into some media commentary, particularly when green climate change policies are targeted.<sup>133</sup> Sadly, Cardinal George Pell has aligned himself with climate contrarians in spite of the acceptance in Vatican teachings of the scientific consensus on human-induced climate change.<sup>134</sup> Internationally, the Cardinal opened the Church to ridicule when he was the main speaker at Westminster Cathedral Hall, London, at an event at the invitation of the climate sceptic think-tank Global Warming Policy Foundation.<sup>135</sup> The Cardinal's stance has included public condemnation and ridicule of the Greens policies as un-Christian.<sup>136</sup> However, many Catholics are angry that their fellow believers seem to paint all Catholics as climate change deniers.<sup>137</sup>



125 Naomi Oreskes and Erik Conway Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming Bloomsbury Press, 2010. Letters to Editor 'Aggression stock in trade for a professional rouser' SMH 24 August 2011.

126 David Marr 'Challenge of the 24-hour news cycle' SMH Weekend edition 5-6 February 2011.

127 Trevor Danos 'No turning back to the dark ages: Challenges to science's authority are to be expected, but the hysterical denigration of the field diminishes us all' SMH 23-25 December 2011.

128 Adam Shand 'The power of print' Weekend Australian 23-24 June 2012.

129 David McKnight 'Sceptical Writers skipped inconvenient truths' Weekend Australian 11-12 December 2010. Ben Cubby 'Abbott still doubts planet getting hotter' SMH 17 August 2010.

130 Extract from Robert Mannes's Quarterly Essay 'Bad News: Murdoch's Australian and the Shaping of a nation', SMH 3-4 September 2011; Graham Lloyd Weekend Australian 17-18 September 7; Bob Brown, speech at the National Press Club TV 7 June 2012.

131 Bill McKibben 'Global Warming's Terrifying New Math: Three simple numbers that add up to global catastrophe - and that make clear who the real enemy is', Rolling Stone 19 July 2012. <http://www.rollingstone.com/politics/news/global-warmings-terrifying-new-math-20120719>

132 Bennis p. 197ff.

133 Paul Sheehan 'Green by name, flaky by nature' SMH 29 November 2010.

134 Leasha McKenny 'Pell not of Vatican faith on climate' SMH 18 May 11.

135 Ellen Teague 'Cardinal Pell voices doubts over climate change', Columban UK 27 October 2011.

136 Mike Carlton 'Flat-earthers, it's time for a cold shower' SMH 5-6 Feb 2011. Sydney Archdiocese election statements 11 Mar 2011 and after Easter 2012.

137 Paul Toohy 1 September 2010 <http://www.dailytelegraph.com.au/specials/election/abbotts-not-old-school/story-fn5zm695-1225912522190> Jacqueline Maley 'Contrarian who takes council from angels' SMH 27-28 Aug 2011.

# Act



*“Eucharistic renewal and environmental responsibility are intrinsically linked. Separating them yields an incomplete and distorted ‘sending’.”*

US Catholic-Methodist Dialogue ‘Heaven and Earth are Full of your Glory: The Eucharist and Ecology’, Origins 3 May 2012 V.41 N.47

There seems to be a growing appreciation among Australian Catholic believers about the causes and impacts of climate change. New opportunities for cooperation and action are emerging and greater

understanding of what might hold some people back. New faith based resources and saintly examples bolster reasons for prayer and faith-based commitment.

## The Climate Commission

The Climate Commission is a credible agency set up to provide Australians with independent information about climate change and an *accessible point open to all for engagement with the climate challenge*.<sup>138</sup> At local area meetings Commission members explain the physics and drivers of climate change, and invite citizens to express their experiences and concerns.

The Commission points out that the general focus on *limiting global warming to 2 degrees is like setting a safety guard rail*. The consequences will be somewhat manageable up to 2 degrees, but there will be a major crash if we go beyond that barrier.

The 2009 Copenhagen Accord was derided as a failure by many with high ideals, as was the Rio+20 gathering held in 2012.<sup>139</sup> However, the Accord made a breakthrough in attitudes. Ninety nations *pledged to reduce emissions by setting their own targets* and monitoring themselves. This may seem a weak action

but it gets away from dictating to other countries about set quotas, legal restraints and monitoring. It is built on trust, more in the spirit of a handshake – something rare in a world of contracts and legal squabbles.

The Commission offers a list of climate-related *achievements that are worth remembering as signs of hope*.<sup>140</sup>

- China, as noted above, is rapidly changing its energy production and lowering energy use per unit of production.
- South Korea plans to lead the world in alternative energy technology.
- The USA has dropped its coal use by a fifth.
- Germany’s wind and solar outputs equal Australia’s total use of power.
- Germany has closed its nuclear plants due to costs and dangers, and Japan is attempting to do the same.
- Many communities in Germany produce and distribute



“The demands of the common good are dependent on the historical conditions of each historical period ... fundamental rights ... the contribution that every nation is required in duty to make.”

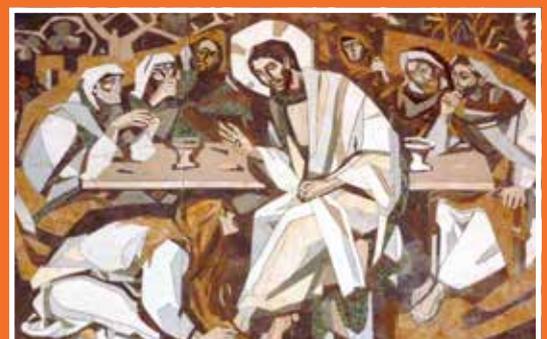
*Compendium of the Social Doctrine of the Church, St Pauls Publication, 2004, No. 166*

power locally with networks becoming redundant.

- Aluminium plants are closing in Australia as power costs rise and they lose government subsidies.
- In the city of Dubbo, NSW, 25 per cent of households have installed solar power, the highest percentage in Australia.

Realistically there are also signs that undermine hope at the international level. Canada has a major problem as it depends largely on tar-sand oil for its energy supplies, a dirty industry in terms of emissions and condemned by Alberta’s Catholic bishop.<sup>141</sup> The USA has a glut of coal seam/shale gas supplies that lessens its incentive to develop alternative energy sources. India’s gas reserves are limited so its transition away from reliance on coal or nuclear remains difficult.<sup>142</sup>

The myth, the lie, about the public not wanting any regulations to lower the cost of alternative energy must be confronted.<sup>143</sup> Australians remember success stories where the government passed regulations and the public accepted them for the common good – seat belts in cars and anti-smoking measures that changed personal behaviour and public expectations, the outlawing of lead in petrol, CFCs in refrigeration, organic chemicals associated with birth defects and the ‘guns buyback’ legislation. Arguments against the government ‘backing winners’ based in ‘letting the market decide’ are not always for the common good. Richard Denniss and David Macintosh of the Australia Institute offer six principles to test Federal government interventions to address global warming. Any measure should be: cost effective; a response to market failure; complimentary to other policies; congruent with state government policies; equitable; and accountable.



138 [www.climatechange.gov.au](http://www.climatechange.gov.au)  
 139 <http://www.guardian.co.uk/sustainable-business/rio-20-jeffrey-sachs-business-democracy>  
 140 Ben Cubby 'Cause for optimism on global warming' SMH 21 August 2012.  
 141 <http://www.edmundriceinternational.org/2011/10/tar-sands-project-not-morally-justified/>  
 142 I Maseeh Rahman 'Thorium-rich India plans alternative nuclear reactor' SMH Weekend 5-6 November 2011.  
 143 Phil O'Neill <http://climatesummit.org.au/summit-presentations/> Ben Cubby Renewable energy to rise without cost to public SMH 8 September 2012.

## Church activities create hope

The messages coming from scientists about climate change present a bold challenge to Catholics, a common human calling and faith calling.

Ecumenical theological reflections on the climate change challenge are going on around the world.<sup>144</sup> One is Operation Noah in the UK – ‘informed by science and motivated by care for creation’ – whose website has a number of resources. One is called *Between the Flood and the Rainbow*, another way of saying, between calamity and hope.<sup>145</sup> Seminaries are engaging the ecological challenge.<sup>146</sup> Inter-faith groups are also active.<sup>147</sup>

Catholic web-based climate justice resources in English have grown.<sup>148</sup> Several multi-language groups dedicated to *Justice, Peace and the Integrity of Creation* (JPIC)

based in Rome, Geneva and New York, offer a global view.<sup>149</sup> Stories are inspiring: a Franciscan delegation at Rio+20 met delegates from the Pacific Calling there. *UCA News* is an English news service carries regular Asian-based stories of environmental action by Catholic communities.<sup>150</sup> For example, the congregation of Tianjin cathedral in north-western China campaigns on the potential water shortages from expanded coal mines.<sup>151</sup> Another calls for better Philippine mining laws to stop foreign exploitation of its natural resources.<sup>152</sup>

The *US Conference of Catholic Bishops* has sponsored a coalition devoted to addressing climate change reports on the activities local Catholic communities.<sup>153</sup> It prepares prayer and activity sheets such as the ‘Lenten Carbon Fast 2010’.<sup>154</sup>



The ongoing work of *Catholic Earthcare Australia* (CEA) celebrated its 10th anniversary this year.<sup>155</sup> At the bishops’ instigation, in 2001 the Columban seminary hosted several days of deliberations before CEA was established the following year with the full support of the Bishops’ Conference. Some thirty advisors from all States shared visions of God’s earth, offered their diverse expertise, and came up with practical ways forward for ecological conversion in Australian Catholic communities. They had the common belief that earth matters to God and to the followers of Jesus on mission. Catholic Earthcare continues with ASSISI as its flagship program.<sup>156</sup>

Congregations of Sisters and Brothers connect Catholic faith and environmental issues as

an ongoing part of the Catholic spiritual journey (see pages 21-22).<sup>157</sup> Catholic Religious Australia (CRA) took ecological immersion as the theme for their 2010 Conference in Hobart.<sup>158</sup>

The issues of *peace, ecology and justice* are being intrinsically connected. One example is the multi-faceted enterprise of the Mercy Sisters at historic Mamre House.<sup>159</sup> Community gardens are central to a range of programs – support for students in danger of dropping out of school or for unemployed and disabled people; farm land for refugees; skills training; garden services and nursery. The centre works in cooperation with volunteers, government agencies and local Councils.

*Catholic education in Australia* is probably the most active church sector comprehensively linking faith



and the 'ecological vocation'. Its offices share ideas and environmental programs, for example Broken Bay diocese's 'carbon management' in schools. Townsville diocesan programs focus on involving students, cooperating with the CSIRO's national CarbonKids program and local projects conserving turtles.<sup>160</sup> Two local students were selected as Australia's representatives at the Asia Pacific Youth Forum on Water in South Korea.<sup>161</sup> However, the structured ecological formation of teachers and adult Catholics still involves small numbers.<sup>162</sup>

It cannot be assumed that a lack of understanding of basic science and mathematics is the only reason the public can be so easily misled on global warming. *Experiential learning is one way to get beyond climate denial or inability to act.*<sup>163</sup> Growing a new world-view on which to base a new life-style embraces intellectual understanding and moral aims. It starts with an interest, moves to technological understanding and a new relationship of ecological belonging, and only lastly arrives at a newer holistic way of living. It is a long road to get value changes and the paralysis of fear must be faced.<sup>164</sup>



144 European Churches 'Budapest Call for Climate Action' December 2010 <http://www.oikoumene.org/index.php?RDCT=503704879efc431535c9>. Bruce Lieberman 'Catholic Church and Climate Change', 14 February 2012, Ecumen Europe <http://www.ecen.org/>. Ecumenical Orthodox Patriarch Bartholomew <http://www.patriarchate.org/patriarch/environment>

145 [www.operationnoah.org](http://www.operationnoah.org)

146 [http://www.greenseminaries.org/index.php?option=com\\_content&view=article&id=46&Itemid=27](http://www.greenseminaries.org/index.php?option=com_content&view=article&id=46&Itemid=27)

147 Faith and Ecology Network <http://www.columban.org.au/our-works/peace-ecology-justice/faith-ecology-network/>. Islamic reference <http://www.ifees.org.uk/> Yale University <http://fore.research.yale.edu/climate-change/statements-from-world-religions/>

148 <http://www.cidse.org/content/sectors/climate-justice/climate-justice.html>

149 [http://picformation.wikispaces.com/EN\\_creation](http://picformation.wikispaces.com/EN_creation) [www.ecojesuit.com](http://www.ecojesuit.com) <http://un.op.org/background>

150 [www.ucaews.com](http://www.ucaews.com)

151 <http://www.ucaews.com/2010/10/07/catholics-pray-for-successful-climate-change-talks>

152 UCANews 'Green Filipino priest speaks out against mining law' June 19, 2012 <http://www.cathnews.com/article.aspx?aeid=31841>

153 [www.catholicandclimatechange.org](http://www.catholicandclimatechange.org), [http://www.americamagazine.org/content/article.cfm?article\\_id=13701](http://www.americamagazine.org/content/article.cfm?article_id=13701)

154 <http://omiusajpic.org/2010/02/10/enten-carbon-fast-2010>.

155 [www.catholicearthcare.org.au](http://www.catholicearthcare.org.au)

156 Michael Costigan Social Justice and the Catholic Bishops 2009 John Garrett publishing.

157 <http://www.cathnews.com/article.aspx?aeid=33014> <http://www.clrinsw.org/events/news.html#publication> <http://www.catholicreligiousaustralia.org/index.php/news-a-views/pathways-e-news>

158 [http://www.catholicreligiousaustralia.org/Pathways magazine July 2010](http://www.catholicreligiousaustralia.org/Pathways%20magazine%20July%202010).

159 [www.mamre.com.au](http://www.mamre.com.au)

160 [www.csiro.au/education](http://www.csiro.au/education) [http://www.ts.v.catholic.edu.au/about\\_us/caring\\_for\\_creation/caring\\_for\\_creation.php](http://www.ts.v.catholic.edu.au/about_us/caring_for_creation/caring_for_creation.php)

161 Photo of St Patrick's College students Townsville Bulletin 23 July 2012.

162 Columban PEJ Growing a Culture of Peace Formation <http://www.columban.org.au/our-works/peace-ecology-justice/peace-ecology-and-justice/>

163 Richard Bowden <http://climatesummit.org.au/summit-presentations/> Professor of psychology Stephan Lewandowsky on climate change, people's ideology and wishful thinking, 13 Nov 2012 <http://www.abc.net.au/radionational/programs/scienceshow/climate3a-who-denies3f/4381756>

164 Wendall Berry 'Thoughts in the Presence of Fear' Orion magazine 2001. <http://www.orionmagazine.org/index.php/articles/article/214/>



## Ecological heroes and saints

We can look to the lives of *saints as heroes*, or *immortal diamonds* gracing us with inspiration.<sup>165</sup> Like a Fifth Gospel, ‘they offer avenues of access to the Christian mysteries’, ‘creative models of holiness for their particular age’, and ‘a theological manifestation under the Holy Spirit addressed to the whole church’. This is a reason why Francis of Assisi was proclaimed as the Patron Saint of Ecology.<sup>166</sup>

*Personal integrity based on saintly values and commitment* seems to be threatened in modern Australian society. The honest worker who does an honest day’s work for an honest day’s pay is often thought of as a fool. Many citizens seem to have become professional



moaners, claiming that their living standards are dropping while proceeding blithely with their wasteful I-deserve-it lifestyle.<sup>167</sup>

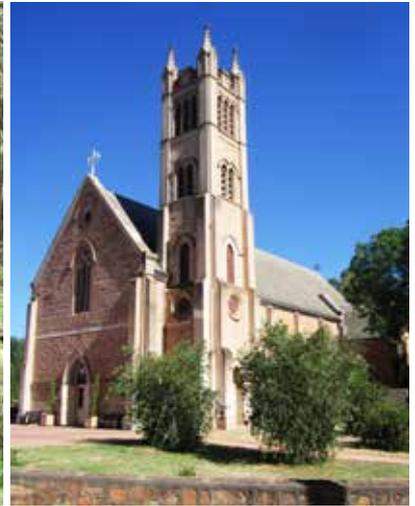
However, values and commitment linked to the

environmental movement offer an entry point to the quest of all believers marked to be saints by baptism. The committed lives of saintly Christian environmentalists show a pathway. The lives of these ‘ecological heroes’ go beyond even ethics and justice to be living examples of a spirituality embracing earthly existence – *union with the mystery of God present in every inanimate and living being*.

In 2006 I wrote about 200 years of Australian Catholic environmental attitudes and about the diverse starting points of people committed to care for the earth, local eco-heroes.<sup>168</sup> Father Julian Tenison Woods appreciated and wrote about the connection between earth sciences and God.<sup>169</sup>

*Saints as messengers of the Holy Spirit in our times* share common characteristics: intimacy with God; suffering and death leading to new life; being connected communally to the church even in trials; showing the reality of salvation as a vision of hope; manifesting the power of spirit in the world; and living historical examples of God’s grace. Mary MacKillop was such a saint. For those consciously choosing to change lifestyles in the face of climate change, pain will be part of the experience.<sup>170</sup> Recently near Sydney, Carmelites have taken the risk to join a local coalition fighting against the development of coal seam gas.<sup>171</sup>

Studying the history of the planet earth and the emergence of human civilisations inspired many saintly environmentalists, including the late Father Thomas Berry.<sup>172</sup> He took seriously the revelation of God-given life in the earth, especially the last 65 million years when humans evolved to take a conscious role as part of



nature. He saw the universe as a communion of subjects, not a collection of objects to be ruled, and that *humans are called to discover and respect the mystique of the earth* in its differentiated unity. He writes that humans can learn to participate creatively in earth existence, a wilderness both terrifying and benign, since they are derived of earth and called to religious sensitivity to its sacredness. Similar ecological sensitivity opened up the Hindu world for inter-religious scholar Raimon Panikkar (1918–2010).<sup>173</sup>

It seems only proper to also recognise the wisdom of secular environmentalists as ‘diamonds’ in the Holy Spirit while not endorsing everything said by particular individuals. One such person was Val Plumwood, who knew that the forest ‘was the place where her

compass spun’.<sup>174</sup> Another was Richard Baker who in 1922 established Men For Trees, planting in arid lands, including West Australia. He took to himself the words:

***‘We praise thee O God that we who have no skill or power to paint or sing, may yet express by humble toil, creativeness. Not ours to trace the loveliest flower nor translate into melody the music of the leafing tree, but we can plant.’***

As we celebrate this 2012 Year of Grace, we pray in thanksgiving for the gifts of nature.<sup>176</sup> Prayer is central to our relationship with God and central to how we live in relationship with others and all things on God’s Earth. Pope Benedict’s prayer on Environment Day this year went out to the world in many languages, calling them to solidarity in action as the one human family.<sup>177</sup>



165 Anne Hunt ‘Immortal Diamonds: The Lives of Saints as Locus for Theology’ ACR Oct 2011 v88 No 4 p387ff.  
 166 <http://www.youtube.com/watch?v=LB1h00i-yVc&feature=related>  
 167 Peter Martin ‘Most likely to worry, but least likely to act’ SMH 10 March 2011. Ross Gittins ‘Politics of self-interest feeds the inner beast’ SMH 7 September 2011.  
 168 Charles Rue ‘Catholics and Nature, 200 year history in Australia Catholic Social Justice Series No 57, 2006.  
 169 Janice Tranter ‘The 150th Anniversary of the ordination of Julian Tenison Woods’, ACR 2009? P.288 ff  
 170 Charles Rue ‘Carbon price will cause pain’ Eureka Street 20 June 2011 <http://www.eurekastreet.com.au/article.aspx?aid=26817>  
 171 Megan Gorrey ‘Clergy fights mining’ 21 September 2001. [www.macarthuradvertiser.com.au/.../clergy-fights-mining/2299309.a](http://www.macarthuradvertiser.com.au/.../clergy-fights-mining/2299309.a), [http://www.sydneycatholic.org/news/latest\\_news/2012/20121113\\_1977.shtml](http://www.sydneycatholic.org/news/latest_news/2012/20121113_1977.shtml)  
 172 Marie Farrell ‘Vale Thomas Berry CP 1914-2009’ ACR p. 468 ff.  
 173 Gerard Hall Book Review: ‘The Rhythm of Being Australian’ eJournal of Theology 18.1 (April 2011).  
 174 James Woodford ‘Philosopher Val Plumwood’ SMH 8-9 Mar 2008.  
 175 <http://www.abc.net.au/radionational/programs/offtrack/men-of-the-trees/4188212>  
 176 Connections Peace Ecology and Justice Centre, Winter 2012.  
 177 <http://www.news.va/en/news/world-environment-day>



# Conclusion

---

## Between Calamity and Hope

It is yet to be seen how the introduction in July 2012 of a carbon tax, and the projected cap and trade scheme, will pan out.<sup>178</sup> Cries about the evils of the new tax seem to be fading but information about why it was introduced and debate about the merits of alternative measures have also faded. This is a dangerous situation as climate change rolls on relentlessly.

It seems to be dangerous to put too much reliance on our leaders alone. Political, business or industry leaders cannot do it all. The lessons from history of religious leadership in the high periods of both Davidic

Israel and European Christendom are sobering. In spite of widespread prosperity in those times, self-satisfied citizens and entrenched leadership had to be challenged from below by prophets and reformers. Jesus epitomised this when he challenged the entrenched religious system of his day.<sup>179</sup> As the dangers of rapid climate change threaten our planet and all life on it, His Spirit leads us to respond from below, *to be ecologically converted and take up our ecological vocation*. The unfolding of God's Kingdom puts us between calamity and hope.<sup>180</sup>

178 Lenore Taylor 'Opposition climate plan could cost extra \$24B – study' SMH 30 June, Sid Maher 'Cash for polluters as a carbon tax looms' Weekend Australian 30 June 2012.

179 Charles Rue John's Gospel and climate change [http://www.columban.org.au/Archives/features/2011/johns-gospel-and-climate-debate/?searched=charles+rue&advsearch=exactphrase&highlight=ajaxSearch\\_highlight+ajaxSearch\\_highlight](http://www.columban.org.au/Archives/features/2011/johns-gospel-and-climate-debate/?searched=charles+rue&advsearch=exactphrase&highlight=ajaxSearch_highlight+ajaxSearch_highlight)

180 Charles Rue Global Warming: Between calamity and hope [http://www.columban.org.au/e-news/e-news-vol.5-no.4/global-warming-between-calamity-and-hope/?searched=charles+rue&advsearch=exactphrase&highlight=ajaxSearch\\_highlight+ajaxSearch\\_highlight](http://www.columban.org.au/e-news/e-news-vol.5-no.4/global-warming-between-calamity-and-hope/?searched=charles+rue&advsearch=exactphrase&highlight=ajaxSearch_highlight+ajaxSearch_highlight)

# *Prayer in the time of climate change*

*God, Creator and Sustainer,  
free us from ignorance about your gift of Earth.*

*Inspire us to act together in respect for your gift and change our ways  
as we relate to Earth's rhythms with humility.*

*May we welcome the truth when scientists speak of climate change,  
And reject false pathways designed to confuse.*

*Help us to urge our politicians to take moral decisions and urgent action  
in negotiating sustainable living.*

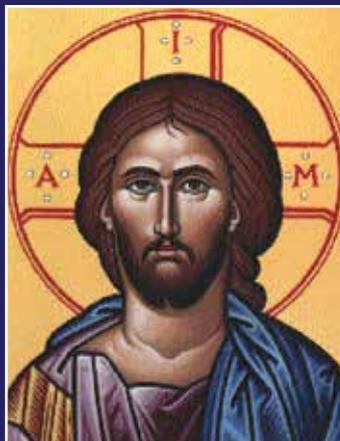
*Ground all our thoughts in your revealing Scriptures  
and the wisdom of holy women and men who have gone before us  
to help cultivate a new creation as followers of your Cosmic Son.*

*Give us a discerning spirit to work with the ecological and the human,  
the social and the economic realities of this world,  
and instil in us a spirit of respect and compassion  
able to imagine pathways of harmony.*

*Amen.*



NCC NSW



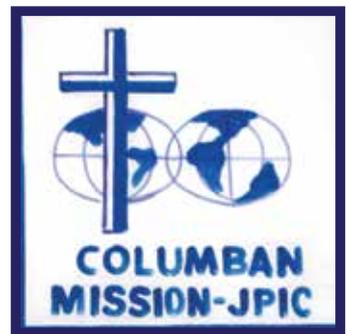
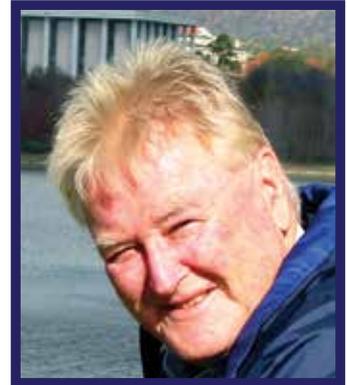
## About the author

The Reverend Dr Charles Rue was ordained in 1968, worked in South Korea and Jamaica WI, and is now the Columban Justice Peace and Integrity of Creation Coordinator in Australia (JPICoz).

<http://www.columban.org.au/our-works/JPIC-Justice-Peace-Integrity-of-Creation/climate-change/>

Photos throughout the document appear courtesy of:

Broken Bay Diocese  
Canowindra Museum  
Catholic Earthcare  
Columban Centre, Bangor  
Climate Institute  
Franciscan Monastery Campbelltown  
Friends of the Earth (FOE)  
Hunter Region Botanic Gardens  
Marist WYD2008 Festival  
Mt Annan Botanic Gardens  
Nature Conservation Council New South Wales (NCC NSW)  
Rev. Leo Baker  
Sculpture by Sea  
St Mary's Cathedral, Hobart  
St Mary's Cathedral, Sydney  
Uniting Church, Newcastle  
ARRCC  
Lock the Gate  
Individual Farmers  
Sydney Alliance  
Sydney Food Fairness Alliance



For extra copies of this booklet go to:  
<http://www.columban.org.au/our-works/JPIC-Justice-Peace-Integrity-of-Creation/climate-change/>  
Phone 02 9352 8000 • [cmi@columban.org.au](mailto:cmi@columban.org.au)