ACEN: "Province of Australia"

Presentation for Lima, Peru Conference August 2011

Australia is the world's largest island continent. Same size as mainland USA without Alaska, ie three million square miles; 7,700 square kilometres. However, this area receives only 1/20th of the annual rainfall of the USA! Australia is the world's driest continent and it's getting drier.

It is geologically stable sitting on one large tectonic plate and it is ancient. The world's oldest rocks 3.9 billion years (cp age of planet 4.5 billion years!) come from Southern Cross in Western Australia. Consequently it is flat (worn down) and mineral rich! Gold, diamonds, iron ore, nickel, coal, uranium. The mining/extractive industries are so wealthy the national economy grew by 1% during the GFC! Australia also has manufacturing and agricultural sectors. It is still a nett exporter of food. Australia's rarest mineral is water which ultimately determines the "carrying capacity" of a country with respect to its human population. Australia's current population is 22.64 million, however, its carrying capacity is 18 million! There is no serious debate yet emerging about optimum population based on the sustainable carrying capacity of this country.

What does sustainability mean in terms of population? How many people constitute a sustainable population? The UK-based Optimum Population Trust has calculated countries' carrying capacities by comparing actual population numbers with how many people a specific country could sustain with a 'modest footprint carrying capacity'. It defines this as a lifestyle broadly related to European standards of living with a reduction of about three-fifths of present consumption of fossil fuels. In this scenario several countries, such as Canada and New Zealand, could actually carry slightly larger numbers.

However, by this standard most countries are already living well beyond their carrying capacity.

Country	**Population**	**Carrying Capacity**
Australia	22 million	18 million
United Kingdom	60 million	23 million
Untied States	280 million	254 million
Israel	6 million	1 million
Italy	58 million	16 million
China	1.3 billion	168 million
India	1 billion	103 million
Egypt	67 million	6 million
Bangladesh	135 million	6 million
Nigeria	111 million	10 million
Pakistan	138 million	26 million

If we calculate the total numbers for these countries, their carrying capacity is approximately 630 million, but their actual population far exceeds this: 2.9 billion! These statistics vividly illustrate how unsustainable our present population situation is. Human numbers are now so far beyond sustainability as to render the concept of sustainability irrelevant. [1]

I realise population is a 'Hot Button' issue but the church is in a position to provide a moral framework in which such a discussion could take place. But I digress.

Due to Australia's latitude range 10º south through to 43.5º south its climates range from monsoonal savannas in the north through to western European/wet winters in the south. So bananas, pineapples and sugar cane grow in the north through to berry fruits and dairy cows in the south.

My home town, Perth sits at 37º south which is the mirror image of the Costa del Sol in Spain or southern California USA in climate, ie Mediterranean tending to dry sub tropical with climate change and the southern displacement of weather systems. Perth required 100 units of rainfall to replenish its dams in the winter of 2010 and received only 6 units of rain! Australia has a large area of sparsely populated desert and desert semi scrub through the centre (Sydney or the Bush!) NB the British government conducted many mainland nuclear and missile firing tests in Australia in the 1960s because they had a people free range of almost 5,000 kilometres in length, ie from South Australia diagonally to north west Western Australia.

WA is one million square miles in area yet contains only 1.8 million people! People still perish if they abandon their broken down vehicles in the outback!

Aboriginal settlement took place through migrations across the then Asian Australasian land bridge between 50-60 thousand years ago. Ritual burial sites at Lake Mungo in Victoria have been carbon dated at 40,000 years old! Aboriginal folk of various language groups represent less than 2% of the total population.

They are a culturally disposed minority with a life expectancy 17.5 years less than the general population. Outback Aboriginals live in third world conditions. Some urban Aboriginals are tertiary educated and live a western lifestyle. So stereotypes are just that!

Australians generally enjoy a very high stand of living; eg the largest and most expensive private dwellings in the world, consequently Australians per capita, are the world's worst polluters!

> "The average Australian household produces 15 tonnes of greenhouse gases, uses 230,000 litres of water and creates 1.7 tonnes of landfill water every year". [2]

[1] Pages 83-84 *"Judgement Day"* The struggle for life on earth: Paul Collins UNSW Press 2010. ISBN: 978 174223 156 3.

[2] "True Green" WA Department of Environment and Conservation March 2008.

Political

At a federal level Australia has had a conservative two party system in place since the 1920s. Very stable government has been the result, however, these parties tend to be different only in style rather than agenda and content. The John Howard government in power through the Bush era was totally unconvinced about Climate Change and equally totally committed to Free Market Capitalism. We lost a whole decade! Barnaby Joyce and Tony Abbott, the present leaders of the opposition, don't believe in Climate Change. They are currently running a fear campaign to sabotage the government's introduction of a modest ineffectual carbon tax. Climate Scientists are receiving death threats (ABC news June 2011!). We currently have a fragile labour/green coalition in power but they are starting from behind with respect to intelligent public debate and necessary overdue reforms in environmental legislation and carbon reduction.

The paradox is Australia has fine Scientists (eg CSIRO) and has developed leading edge technologies for sustainable/renewal energy; but our leaders lack the political will to move towards the application of these technologies. The fossil fuel and uranium lobbies are large, wealthy, influential and actively use,

(i) disinformation and
(ii) financial kickbacks to the major political parties to advance their own interests.

Australia is governed by shareholders and telephone polls! Yet Climate Change is adversely affecting Australia with increasing severity and frequency of climate events. Floods and bushfires are now annual catastrophes.

> **Australia's climate has changed along with the global climate**
>
> In Australia, the average surface temperature has increased by about 0.7°C since 1960, with some areas having warmed faster and some showing relatively little warming (see Figure 3.5). The warming has caused an Australia-wide average increase in the frequency of extremely hot days and a decrease in the frequency of cold days (see Figure 3.3).
>
> While the longer term trends in rainfall are less marked, there have been significant increases over north-western Australia, and decreases over south-western and south-eastern Australia since 1960 (see Figure 3.6). The warming and decreased rainfall over south-east Australia have exacerbated the background conditions conducive to fire. In southwest Western Australia and the southeast coast, there is evidence for a systematic decline in rainfall in recent decades, and for declining trends in storminess. It is likely that these trends are related to shifts in pressure patterns over southern Australia, particularly the intensification of the subtropical high pressure belt.
>
> Regional ocean currents have also changed. For example there has been a southward shift of the Antarctic Circumpolar Current and an increasing southward penetration of the East Australian Current, associated with wind changes in the South Pacific.

Sea level has risen around Australia at a rate of about 1.2 mm per year since 1920, resulting in coastal inundation events becoming more frequent. Since the establishment of the Australian Baseline Sea-level Monitoring Project in the early 1990s, sea level measured relative to the land has risen at about 2 mm per year in the south east, and over 8 mm per year in the north west.

The Science of Climate Change: Questions and Answers,
2010 Australian Academy of Science, Canberra, ACT, p9

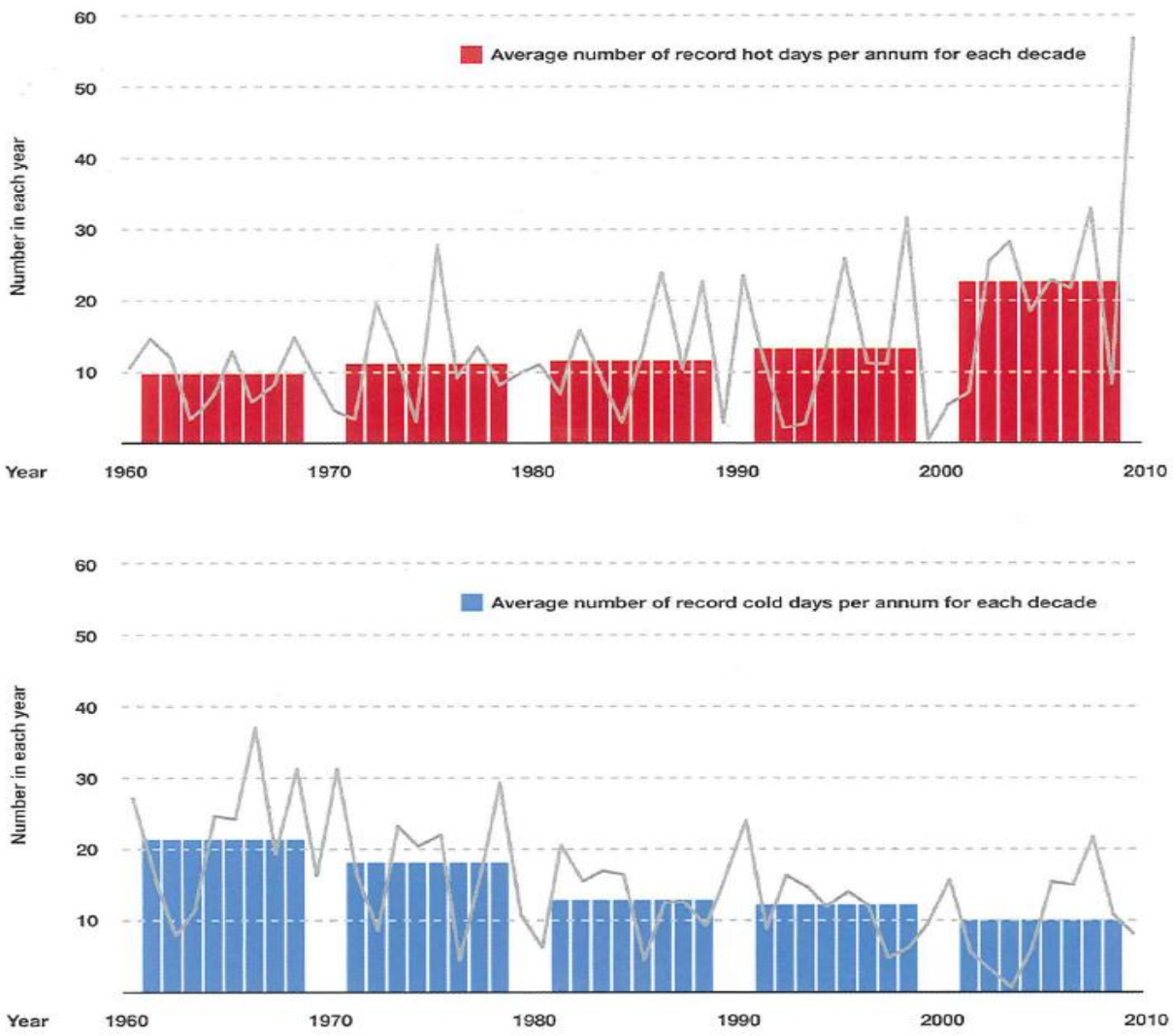

Figure 3.3 Changes in the number of record hot day maxima and record cold day maxima at Australia's climate reference stations. The number of days with record hot temperatures has increased each decade over the past 50 years; there have been fewer record cold days each decade; and 2000 to 2009 was Australia's warmest decade on record. Source: CSIRO, Bureau of Meteorology (2010) "State of the Climate".

The Science of Climate Change: Questions and Answers,
2010 Australian Academy of Science, Canberra, ACT, p8

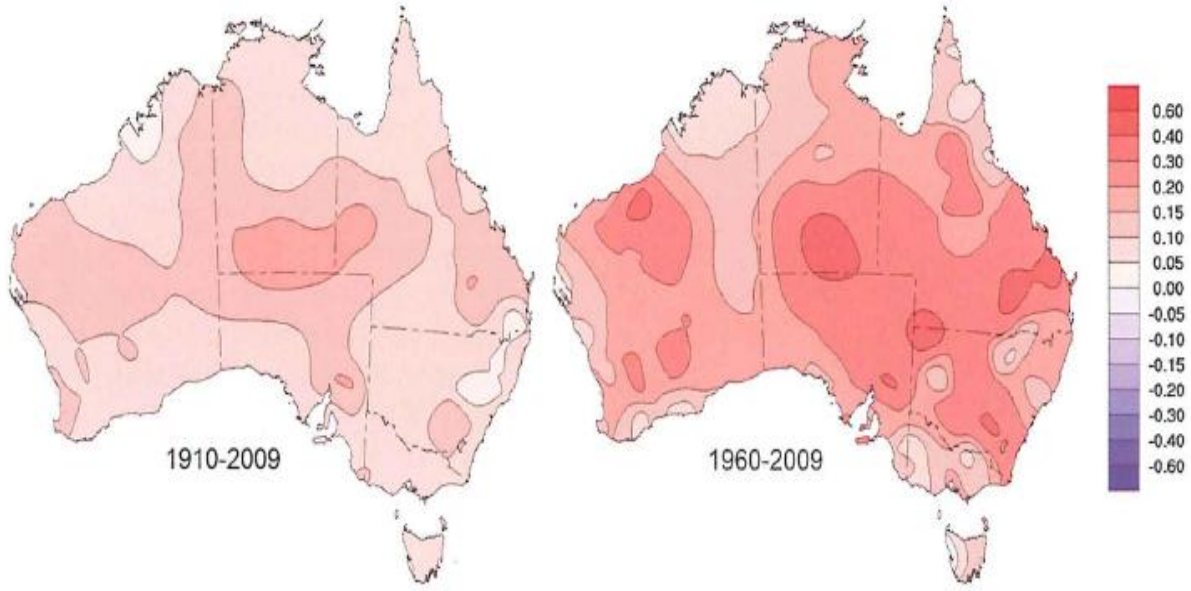

Figure 3.5 Trends in Australian annual temperature (°C/decade) over the periods 1910–2009 (left) and 1960–2009 (right). Source: Australian Bureau of Meteorology (*http://www.bom.gov.au/cgi-bin/climate/change/trendmaps.cgi*)

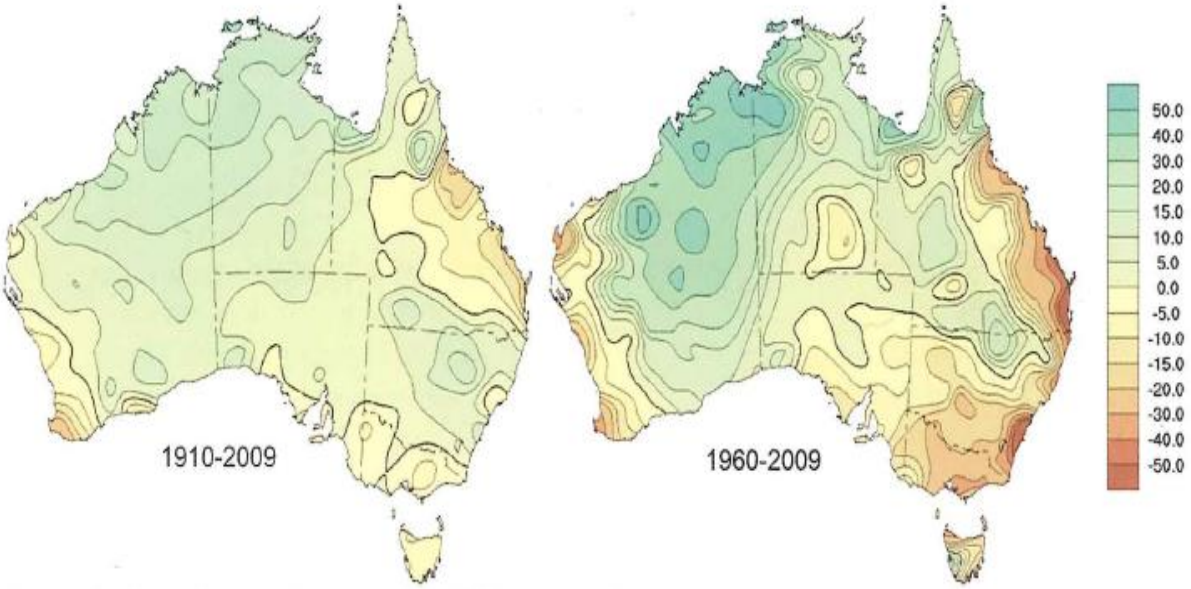

Figure 3.6 Trends in Australian annual rainfall (in mm per decade) over the periods 1910–2009 (left) and 1960–2009 (right). Source as for Figure 3.5.

The Science of Climate Change: Questions and Answers, 2010 Australian Academy of Science, Canberra, ACT, p9

Figure 6.1 Climate change may have severe impacts across Australia. Days of extreme fire danger are likely to increase (**top right**).

Rainfall patterns are likely to change, leading to changes in river environments: the **image on the far left** shows stranded reeds and saline mud flats in September 2007, caused by the rapidly retreating waters of Lake Bywater (near Walkers Flat, SA). This lake is fed by the River Murray, which has seen major falls in level since 2000, particularly below Lock 1. The **image on the top left shows** heavy rain in the Northern Territory.

The **centre left image** shows healthy coral and the **centre right image** shows bleached coral near Keppel Island.

Biodiversity is likely to decrease: the **image to the right** shows the endangered lemuroid possum from North Queensland.

The Science of Climate Change: Questions and Answers, 2010 Australian Academy of Science, Canberra, ACT, p15

Some recent Australian climate changes have been linked to rising greenhouse gases

Modelling studies indicate that rising greenhouse gases have made a clear contribution to the recent observed warming across Australia.

Decreases in atmospheric ozone over Antarctica and increases in greenhouse gases are also likely to have contributed significantly to climate trends that have been observed over the Southern Ocean in the past few decades, including stronger westerly winds and the southward shift of weather systems.

The human contribution to the recent observed rainfall increases in northwest Australia and decreases in southern Australia cannot as yet be clearly separated from natural climate variations. However, the decreases in rainfall in southern Australia have been linked to stronger high pressure weather systems. The overall pattern of increasing pressure in mid-latitudes and decreasing pressure at high latitudes over time in the Southern Hemisphere is consistently seen in climate model projections and is therefore likely to be due to human-induced climate change through a combination of increases in greenhouse gases and decreases in stratospheric ozone.

The Science of Climate Change: Questions and Answers,
2010 Australian Academy of Science, Canberra, ACT, p11

What are the consequences of climate change for Australia?

Climate change will have significant impacts on our society and environment. Historically, the Australian climate has been highly variable. This variability makes it challenging to predict the future consequences of human-induced climate change. However, climate models and past experience provide some guidance.

By around 2030, Australian temperatures are likely to be a half degree or more higher than 1990 and the frequency of hot days and nights will have increased. Sea level is expected to be about 15 cm higher and there is some evidence to suggest that tropical cyclones will become more severe, but less frequent.

It is likely that future rainfall patterns across Australia will be different from today. Changes in rainfall patterns are hard to predict: regional rainfall projections from different climate models (or between different runs of the same model with different starting conditions) are frequently quite different from one another. Nevertheless, some future trends are projected fairly consistently, including increases in rainfall in northern Australia and decreases in Victorian and southwest WA coastal regions. The projections for rainfall trends across the entire Murray-Darling basin remain uncertain.

It is likely that higher temperatures and changing patterns of wind and rainfall will change the patterns and frequency of extreme fire weather, and also lead to more heat-related deaths and fewer cold-related deaths.

Farming in Australia is vulnerable to climate change but skilful management is expected to be able to alleviate some of this vulnerability. Higher CO_2 levels, fewer frosts and changed rainfall patterns may be beneficial to agriculture in some parts of Australia, but decreases in rainfall in other Australian regions are likely to have a detrimental effect on agriculture.

Warmer ocean temperatures will lead to further changes in the distribution of marine animals and plants, with some tropical fish moving progressively southward. As a result of increased CO_2 in the atmosphere, oceans will become more acidic and, in combination with the higher temperatures, coral bleaching events are likely to become more frequent and severe around northern Australia.

Sea level will increase, inundating parts of the Kakadu freshwater wetlands and causing increased coastal flooding, with consequent change to sandy coastlines. As sea levels rise, coastal infrastructure around Australia will become more susceptible to damage. Tourism may be adversely affected, in part due to the sector's dependence on natural assets and the built environment, both of which are vulnerable to the physical impacts of climate change.

The impact of climate change on plants and animals will be variable. Habitat will expand for some species, while for others it will contract. However, the inability of many species to migrate as a result of both land use change and habitat fragmentation means that biodiversity is likely to decline overall, in line with observed global trends. Higher temperatures on the forested mountaintops of north-east Queensland, for example, may exceed the heat tolerance of some endemic species in the wet tropics, resulting in their extinction.

The Science of Climate Change: Questions and Answers,
2010 Australian Academy of Science, Canberra, ACT, p14

GENERAL SYNOD ENVIRONMENTAL WORKING GROUP

Australia is a Province with twenty-three autonomous dioceses. Their responses to the need to establish environmental groups is as varied as their theology and capacities to engage in environmental responses.

The General Synod established an Environmental Working Group which reports to the Standing Committee of General Synod with the following Charter and Responsibilities.

CHARTER

Overall Purpose of the Committee

The bond between Creator and creation underlies our whole relationship with God and it is clear from scripture that this bond is not just with humanity but with the whole of creation (eg John 1: 3; Romans 8: 20-21). As a consequence, the Environment Working Group (EWG) is appointed by General Synod Standing Committee (GSSC) to:

- assist and advise the national church, through the GSSC, on environmental matters including the management of energy, water and biodiversity, and on policy issues arising from the effects of human activity on God's creation; and to

- give leadership to the Church and its people in Australia on ways in which they can care for the environment and address the use of the resources of God's creation properly, responsibly and reverently.

Responsibilities
The EWG shall:

1 Assist the GSSC by reviewing and making appropriate recommendations with respect to policies, strategies, guidelines, benchmarks that may have an environmental consequence.
2 Assist the General Synod Doctrine Commission and the General Synod Liturgical Commission to develop theological and liturgical resources that enable Australian Anglicans to understand better and worshipfully respond to the relationship between Creator and creation; and work with the General Synod Public Affairs Commission on responses to practical, social and political issues arising from the effects of human activity on God's creation.
3 Assist Diocese and Anglican bodies to develop and implement environmental policies which express principles of good environmental stewardship.
4 Prepare or find draft codes of practice developed elsewhere which:
   (a) set out good practice in relation to the environment; and
   (b) assist agencies and Diocese, including ministry units, to care better for the environment, use the resources of God's creation properly and to act responsibly about the effect the agencies and its members have on God's creation.
5 Work closely with the Australian Anglican Environmental Network (AAEN) to provide policy material and practical information developed by Diocese for collation and dissemination nationally through the EWG and AAEN websites or by other means.
6 Recommend to GSSC as a matter of policy the targets that Dioceses and Diocesan agencies, including ministry units, should meet for reducing their impact on the environment and each target shall include the date by which the targets should be met.

PROTECTION OF THE ENVIRONMENT CANON 2007
Canon No. 11, 2007

A Canon to assist in the protection of the environment

The General Synod prescribes as follows:

Preamble
A. This Church acknowledges God's sovereignty over his creation through the Lord Jesus Christ.

B. In Genesis it says that "The Lord God took the man and put him in the Garden of Eden to till it and keep it". In 1990 the Anglican Consultative Council gave modern form to this task when it declared that one of the five marks of the mission of the Church was "to strive to safeguard the integrity of creation, and to sustain and renew the life of the earth".

C. This Canon gives form to this mark of mission in the life of the Anglican Church of Australia.

D. This Church recognises the importance of the place of creation in the history of salvation.

E. This Church acknowledges the custodianship of the indigenous peoples of this land.

F. This Church recognizes that climate change is a most serious threat to the lives of the present and future generations. Accordingly, this Canon seeks to reduce the release of greenhouse gases by this Church and its agencies.

Short title and principal canon

1. This Canon may be cited as the "Protection of the Environment Canon 2007".

Mechanisms to assist in protecting the environment

2. (1) Every diocese which adopts this Canon undertakes to reduce its environmental footprint by increasing the water and energy efficiency of its current facilities and operations and by ensuring that environmental sustainability is an essential consideration in the development of any new facilities and operations, with a view to ensuring that the diocese minimalises its contribution to the mean global surface temperature rise.

(2) Every diocese which adopts this Canon undertakes to establish such procedures and process such as an environment commission, or similar body as are necessary to assist the diocese and its agencies to:

a) give leadership to the Church and its people in the way in which they can care for the environment,

b) use the resources of God's creation appropriately and to consider and act responsibly about the effect of human activity on God's creation,

c) facilitate and encourage the education of Church members and others about the need to care for the environment, use the resources of God's creation properly and act responsibly about the effect of human activity on God's creation, and,

d) advise and update the diocese on the targets needed to meet the commitment made in sub-section (1);

e) urge its people to pray in regard to these matters.

Reporting

3. (1) Every diocese which adopts this Canon undertakes to report to each ordinary session of the General Synod as to its progress in reducing its environmental footprint in order to reach the undertaking made in accordance with sub-section (1) of section 2.

(2) Any report will outline the targets that were set, the achievements made, and difficulties encountered.

Adoption of Canon by Diocese

4. The provisions of this Canon affect the order and good government of the Church within a diocese and the Canon shall not come into force in any diocese unless and until the diocese by ordinance adopts the Canon.

See Appendix 1 for Survey Report of diocesan adoption of this Canon.

GENERAL SYNOD ENVIRONMENT MOTIONS

1 Synod 2007 - Caring for the Creation

Dr Beth Heyde moved, The Reverend Canon Dr Marian Free seconding,

That this General Synod of The Anglican Church of Australia gives thanks to Almighty God for the gracious gift of human life and for the privilege of being divine image bearers.

Synod acknowledges:

a) that all human life comes from God, irrespective of age, gender, race, or ability, and that God does not delight in the death of any he has made, and notes:

b) Resolution I.8 of the Lambeth Conference 1998, which
   (i) reaffirms the Biblical vision of Creation according to which the divine spirit is present in Creation and human beings have responsibility to make personal and corporate sacrifices for the common good of all Creation; and
   (ii) recognizes that unless human beings take responsibility for caring for the earth, the consequences will be catastrophic because of: overpopulation, unsustainable levels of consumption by the rich, poor quality and shortage of water, air pollution, eroded and impoverished soil, forest destruction, and animal extinction.

c) the encouragement in Resolution 14.15 of the Anglican Consultative Council in May 2009 for Provinces 'to advocate sustainable restorative economies with national governments, the United Nations through the Anglican Observers Office, and local constituencies'.

And requests:

(1) Australian Anglican Dioceses and individuals to:
   (i) Grow in understanding of global and national environmental challenges, and the role of human population growth in contributing to them.
   (ii) Use resources including those identified by the General Synod's Public Affairs Commission and Environment Working Group to assist in developing integrated views of issues and potential responses, and take action to reduce our impacts.

(iii) Contribute thoughtfully and prayerfully to public debate about how to
- achieve justice not only for current Australians but for our descendants,
- nurture and protect, nurture and protect life on this fragile land with all its beauty and diversity life on this fragile land with all its beauty and diversity,
- share in a world of finite resources, showing love for our neighbours, particularly those who live in the two-thirds world,

(iv) remain confident in the gospel of Jesus Christ to address environmental challenges as it calls people to turn from human selfishness and greed.

(v) Prayerfully consider and reduce their levels of consumption.

(vi) Explore ways to ensure that every child is welcomed and has the opportunity to reach his/her full potential.

(2) The Australian Government to:

(i) Recognise the role of population growth and unsustainable levels of consumption by the affluent in contributing to global and national environmental challenges, and avoid any reliance on continuing population growth to maintain economic growth.

(ii) Determine a sustainable population policy for Australia which is fair and just.

(iii) Consider carefully any incentive aimed specifically and primarily at increasing Australia's population while continuing to support low-income families and sustainable immigration.

(iv) Support agricultural research both to care for our land and to preserve our ability to produce food.

(v) Contribute more generously to improving the welfare of people in the least developed nations, and other life in their environments, in particular by including support for family planning and women's reproductive health programmes with aid for development, in ways that respect the cultures of those people and take account of Christian values including respect for the sanctity of all human life.

(3) The reporting of the outcome of this Motion to the United Nations Anglican Observers' Office.

(89/10, 21 September 2010)

2 Synod 2010 - Environment

Bishop Tom Wilmot moved, Dr Karin Sowada seconding,

That this General Synod of the Anglican Church of Australia acknowledges:

- God's sovereignty over His creation through the Lord Jesus Christ (John 1:3);
- The Anglican Communion's 5th mark of mission "to safeguard the integrity of creation and to sustain and renew life on Earth"; and

Supports the recent Anglican Consultative Council's Resolution 14.15 (2009) "to weigh the environmental as well as the financial costs of all church activities", and, in drawing the Resolution to the attention of Dioceses and agencies:

Requests:

1 The General Synod Liturgical Commission to develop liturgical resources that will encourage worship that expresses the relationship between Creator and creation as "an integral part of the church's yearly pattern of worship and teaching" (ACC, 2009);

2 Australian Anglican Dioceses to encourage their "faith communities to understand that energy is part of God's provision, and that renewable energy should become the standard wherever possible" (modified from ACC, 2009);

3 The Anglican Church of Australia "to advocate for a sustainable economy with the national government" (modified from ACC, 2009) giving high priority to environmental and social as well as to economic imperatives, for the long term wellbeing of all life on the Earth;

4 The General Synod Standing Committee Environment Working Group, in collaboration with other relevant Commissions develop a series of discussion papers with theological and policy reflection on key topics;

5 The General Synod Standing Committee Environment Working Group to "provide means for Anglicans to develop competencies in environmental stewardship and theological reflection on the sustainability of creation and the appropriate use of science and technology" (ACC, 2009) and provide advice and/or counsel to encourage and/or facilitate effective long-term sustainable management and use of environmental resources within Dioceses. **(116/10, 22 September 2010)**

CONTEMPORARY ISSUES

Murray Darling Basin: Agricultural Production vs the Survival of Australia's Major River System

Christians believe that God is sovereign over His creation through the Lord Jesus Christ (John 1:3) and, consequently, the Christian message is one of hope. In the context of this hope, the Anglican Church of Australia is strongly committed to helping all life flourish in our country. Positive action is particularly important in the Murray-Darling Basin because of its size and diversity, its presence in four States and a Territory, and its overall potential to be highly productive.

Whether the people and creatures of the Basin flourish or not depends on the extent and distribution of rainfall within the Basin, and the just use of this resource. The ever present issues of greed and pride and their consequences, that beset human endeavour, must not be allowed to overwhelm our commitment and hope of seeing all creation, plants, animals and people, flourish. The defence of those unable to speak for themselves, whatever form they take, has always been part of the church's business and we would wish to stand with those who are now struggling with the consequences of past policies and farming practices.

Much of the increase in water storage capacity produced by constructing large dams in support of irrigated agricultural development within the Basin, occurred in the two and a half decades from the mid 1950s. This was a period of relatively higher rainfall than that which occurred during the first half of the century and in the last two decades. Unfortunately, the volumes of water required to sustain the resulting higher levels of production, which include water-filled rice paddies and water-thirsty cotton, are not likely to be available in the long run. One of the consequences will be damage to the ecological sustainability of the Basin.

Recent proposals to limit the availability of water for agricultural production in order to conserve the aquatic integrity of the system and to ensure its continuing sustainability have been strongly rejected by many of those whose livelihoods may be adversely affected by such developments. The Anglican Church is an active member of these affected communities and is concerned for their welfare. However there can be no doubt that practices that have the strong likelihood of irretrievable damage to natural ecosystems must be prevented and replaced by scientifically sound, environmentally sustainable agricultural practices. We must make the changes needed to allow all in the Basin, ultimately, *to flourish.*

Such an approach needs to include appropriate transformational support to agricultural practitioners, and to other residents in the affected regions, in order to allow the development of communities able to sustain their livelihoods during prolonged and repeated periods of low rainfall. Long periods of dryer weather seem very likely to become more common in the regions of the Murray-Darling Basin, according to climate change modelling based on increasing greenhouse gas concentrations. Support must therefore be provided to the affected communities in ways that are consistent with significantly less water being regularly available for agriculture. Only in that way will the viability of the whole Basin be safeguarded, including its biodiversity.

To do otherwise would not only lead to irretrievable damage to the natural ecosystems and, ultimately, greater decline in economic productivity, but also lead to continuing distress and uncertainty for regional communities of the Basin far into the future.

Water is essential for the continuation of all life and its sensible conservation is critical. The Church, like government, has an irrevocable commitment to the ongoing welfare of the communities it serves as well as to the glorious diversity of creation. We stand ready to cooperate with others in seeking and supporting a sustainable long-term solution to these difficult issues, and encourage the Government and the people of the Basin to take the very hard decisions that are needed if all life in the Basin, after a period of turmoil, is to flourish into the future.

Prepared by the Environment Working Group of the General Synod of the Anglican Church of Australia in response to General Synod's request that the church "advocate sustainable economies with national governments".

DRAFT MEDIA RELEASE ON MURRAY DARLING BASIN
Anglican Church enters the Water Debate

The Primate of the Australian Anglican Church has released a position statement on the future use of water in the Murray-Darling Basin. “This is one of a range of statements to be released” he said. “These are being developed following General Synod’s direction last year for the church to advocate for a sustainable economy, giving high priority to environmental and social, as well as to economic imperatives. We are concerned for the long term wellbeing of all life on earth”, Archbishop Aspinall observed.

“Our aim is to provide a Christian perspective on these issues because they have deep moral and spiritual dimensions as well as material ones” the Primate said. “In the present case there are real issues of importance as we try as a nation to balance the issues of human welfare and need in the present generation, against the need to maintain the rivers and natural environment for future generations. It is a real struggle as scripture makes it clear that God has concern for both people and the wider creation. We have taken as our theme in this debate the word ‘flourish’ as God’s love is fulfilled in a flourishing world” he said. “How do we change our behaviour so that both the people and nature in the Basin will flourish? It is a very difficult question and we need to recognise that there are honest differences between people of good will on all sides of the debate.”

Recent proposals to limit the availability of water for agricultural production in order to conserve the aquatic integrity of the system and to ensure its continuing sustainability have been strongly rejected by many of those whose livelihoods may be adversely affected by such developments. Archbishop Aspinall pointed out that “the Anglican Church is an active member of these affected communities and is concerned for their welfare. However there can be no doubt that practices that have the strong likelihood of irretrievable damage to natural ecosystems must be prevented and replaced by scientifically sound, environmentally sustainable agricultural practices”.

“We must make the changes needed to allow all in the Basin, ultimately, *to flourish*” he said.

The Environment Working Group paper points out that such an approach needs to include appropriate transformational support to agricultural practitioners, and to other residents in the affected regions, in order to allow the development of communities able to sustain their livelihoods during prolonged and repeated periods of low rainfall. Long periods of dryer weather seem very likely to become more common in the regions according to climate change modelling.

“The defence of those unable to speak for themselves, whatever form they take, has always been part of the church’s business and we would wish to stand with those who are now struggling with the consequences of past policies and practices”, the Primate said.

Electronic versions of this material can be obtained from the Environment Working Group Web Site at www.environment.perth.anglican.org.

GENERAL SYNOD ENVIRONMENT WORKING GROUP DISCUSSION PAPER ON CARBON EMISSIONS: WHY SHOULD CHRISTIANS BE INVOLVED IN THE DEBATE?

Christians believe that God is sovereign over His creation through the Lord Jesus Christ (John 1:3) and, consequently, the Christian message is one of hope. In the context of this hope, the Anglican Church of Australia is strongly committed to helping all life flourish in our country.

The climate change debate is at a crucial point. A carbon tax is on the agenda (to be followed by an emissions trading scheme) but the Australian Parliament seems to be seriously divided on how to proceed. Most Australians do not understand what a carbon tax would mean for the nation, and they are understandably concerned about the cost for themselves. So far, political debate seems to have been largely ineffective in setting out why Australia's carbon emissions need to be reduced and how it is proposed to do so.

In brief, reducing carbon emissions is a practical and moral necessity. The case for action to respond to climate change is strong. It is essential that there now be an effective political debate in which this case is cogently made. The methods proposed for achieving reductions need to be well explained and contrary views need to be expressed with respect, avoiding oversimplified rhetoric. Self interests need to be appropriately acknowledged.

Why reduce Australia's carbon emissions?

As Christians we see the world we live in as a celebration of God's abundance, but ironically, abundance is enjoyed, celebrated and protected through living within limits. Our understanding is that:

- because of humanity's vast and increasing numbers leading to ever-expanding consumption, carbon (greenhouse gas) emissions have been increasing rapidly;
- the mainstream scientific consensus, as expressed by the International Panel on Climate Change, is that at the present rate of increase in carbon emissions, we are at grave risk of a global temperature increase of more than two degrees, and consequently of 'dangerous' climate change;
- moreover, predictions made by the International Panel on Climate Change are in accord with observations of more frequent extreme weather events.

The 'carbon problem' is related to problems in several other global processes (showing up as insufficient water availability, biodiversity loss, etc) which have the same driving forces.

As Christians we relate to God, to one another and to all living things. To cast aside concern for the substantial risks, and act as individuals without thought to the consequences for other human beings and for all of non-human life, is to deny our essential humanity. We ask ourselves how we can show that we respect and value God's creation, and how we can learn to trust one another in a world of limited resources, by acting justly and by caring for our neighbour.

Less carbon must be emitted if we are to respond to the threat of dangerous climate change and ensure justice for future generations of humanity and other life. We need to consume less, especially non-renewable energy in its various forms. We need to re-examine what is meant by growth and wealth, acknowledging our interdependence with the material world and rediscovering our responsibility for it.

This challenges a society in the grip of materialism. People are uncertain about how they could survive without all the comforts of current lifestyles, and about how to make ends meet with expected cost increases because of a price on carbon emissions. The cost of energy will indeed increase (and not just for this reason). We therefore emphasise the need for compensation for those who genuinely need it, which we understand is the intention of the Government. But, crucially, we also understand that the market force of higher costs of goods and services, because they involve carbon emissions, will change the kinds of purchases made by the community towards ones that involve lower carbon emissions and lower cost. Moreover, new forms of personal and community sustainability can be expected, such as that in the small Western Australian town of Merredin (in a struggling agricultural area) which has cooperated in the development of a wind farm and is currently pursuing geo-thermal electricity production.

How best to reduce Australia's carbon emissions?
It is not our role to offer detailed policy advice. We do offer strong encouragement for well-informed, effective political debate on how to achieve a more environmentally sustainable footing, and comment on principle.

A strategy is needed to move Australia (and the world) to far less dependence on fossil fuels. Ensuring that the cost of carbon pollution is paid for is an essential part of such a strategy; the market surely expects the real costs of production to be part of the product price. This would provide:

- **stimulus for transforming the economy through creation of products and services with low carbon emissions**
- **funds to enable compensation for people in genuine need, and**
- **funds to enable direct and substantial government support for rapid implementation of a range of low carbon technologies and lifestyles.**

Those who oppose all forms of carbon pricing are discounting the substantial risks for all life on this planet. Oversimplified political rhetoric does everyone a disservice. **Avoidance of our responsibility to reduce carbon emissions can be expected to lead to higher future costs for everyone** - caused, for example, by more frequent environmental disasters and the loss of jobs to more innovative economies that are on track to a sustainable future. Poorer people and nations would suffer most. Out of concern and care for our neighbours in Australia and the world, we acknowledge and support the urgent need to mitigate climate change through reducing carbon emissions.

LITURGICAL AND EDUCATION RESOURCES
The General Synod Environment Working Group has developed a website www.environment.perth.anglican.org/ for Liturgical and Education Resources.

Of particular interest may I direct you to the Hot Gospel Bible Studies and the resources currently being developed for Sustainable September.

The General Synod Environment Working Group recently developed a Process Methodology for the development and Implementation of Sustainability Guidelines "For Your Diocese" and DIY kit in draft form but downloadable and usable. Refer to handout.

This DIY Diocesan Sustainability Guideline was developed by the Diocese of Perth which produced the following Sustainability Guidelines adopted by the Synod of that that Diocese in 2010 for trial to be adopted as policy at its forthcoming Synod in October 2011. Refer to handout.

PARTNERSHIPS WITH INDIGENOUS GROUPS:
THE ABORIGIONAL/NOONGAR PEOPLE

The indigenous peoples of Australia, Aborigines have been living in harmony with the land for over 40,000 years. True their slash and burn methods have changed the landscape they entered but we still have much to learn from their concepts and spirituality of custodial care rather than ownership and exploration so prevalent in the developed world.

The Archbishop of Perth and I meet with various Aboriginal elders on a regular basis to discuss issues of land rights and land care. They have a rich spirituality of creation and responsible relationships with the earth in their "Dreamtime Stories".

All Anglican gatherings in the Diocese of Perth begin with an acknowledgement of the earlier Aboriginal footprint on the place where we meet: "in remembrance that the Aboriginal people first walked this land", as a plaque in our diocesan office reminds all who enter.

The Mining Companies are in a constant contest with Aboriginal people over land use, limitation of damage and royalties following an Australian Supreme Court land mark decision to acknowledge that Australia was not terra nullius at the time of European invasion and dispossession.

The Mabo Case decision as it is called was based on a precedent in a similar claim by the Welsh against the English in the sixteenth century!

LOCAL
Anglican EcoCare Commission – Diocese of Perth

The Diocese of Perth established an Archbishop's Environmental Advisory Group in 1997. The founding members of this group currently known as Anglican EcoCare were pioneers of theological, liturgical, educational and practical applications in all things environmental. Two have environmentally sound properties (mentoring and modelling!) in the hills above Perth and offer retreats and poustinia facilities to individuals and groups.

Another couple, Peter and Anna, also from this group have established a Desert Retreat Spirituality Centre facility at Koora 500 kilometres from Perth where the environmental and Aboriginal spirituality feature (email info@kooraretreat.com.au; website http://kooraretreat.yolasite.com).

The Synod of Perth made this reference group a standing commission of Synod with the passing of the Anglican EcoCare Statute in 2006.

ANGLICAN ECOCARE STATUTE 2006

WHEREAS it is deemed desirable to establish Anglican EcoCare as a standing Commission of Synod

BE IT THEREFORE RESOLVED by the Archbishop, Clergy and Laity of the Diocese of Perth in Synod assembled

1. This statute may be cited as the "Anglican EcoCare Statute 2006".

2. The organisation known as Anglican EcoCare is hereby established as a Standing Commission of Synod (the Commission).

3. The Commission is established to
   (a) pursue in particular the final point in the Mission Statement of the Anglican Communion adopted by this diocese, namely "to strive to safeguard the integrity of creation and to sustain and renew the life of the earth";
   (b) be an agent of education concerning environmental and faith matters for the Diocese of Perth in both practical and didactic ways;
   (c) provide experiential opportunities for environmentally sensitive Christian living, prayer and community building;
   (d) be a prophetic voice on matters of faith and environment;
   (e) establish and maintain working relationships with educational institutions, commerce and industry regarding environmental matters; and
   (f) establish relationships with other ventures that share the same purposes with the approval of the Diocesan Council.

4. The Commission shall be controlled and managed by a Management Committee of nine persons consisting of
   (a) The Archbishop or a person appointed by him;
   (b) Three persons appointed by the Archbishop;
   (c) Three persons elected by the Synod;
   (d) One person appointed by the Social Responsibilities Commission; and
   (e) One person appointed by the Management Committee.

5. The members appointed by the Archbishop and the Diocesan Council shall hold office for a term of three years provided that:
   (a) of the appointments first made after this statute comes into force one of the three persons in each category shall be appointed for a term of three years, one for a term of two years and one for a term on one year; and

(b) the term of a retiring member shall continue until the appointment of that member's successor.

6. If present at a meeting the Archbishop or his nominee may chair the Management Committee.

7. The Management Committee shall meet at least once a quarter and shall
   (a) be responsible for pursuing the purposes of the Commission;
   (b) devise and provide programmes pursuant to the purposes;
   (c) manage any funds that may be allocated by the Diocesan Council or received from other sources; and
   (d) present a report to each Synod.

8. The Diocesan Council shall make such budgetary provision as it considers proper to facilitate the work of the Commission.

9. The Management Committee shall only incur expenditure in accordance with its budget as approved by the Diocesan Council.

10. The Archbishop shall have the power to settle any disputes arising in relation to the work of the Commission.

AEC continues to flourish according to its charter at Section 3 in the above Statute and I rejoice in my role as the current chair. In 2010 a half time Projects Officer and Advocate was appointed, Claire Barrett-Lennard, who also functions as the Project Officer for the Diocesan Social Responsibilities Commission; a nice synergy! The AEC was responsible for the Diocesan Sustainability Guidelines and the production of DIY Guidelines to assist the other dioceses of the national church to produce their own Sustainability Guidelines; if they have not already done so.

This group has created:
(i) a solar panel scheme for parishes;
(ii) energy/water audits for parishes/agencies/schools;
(iii) an Eco-Loan facility with our diocesan bank, the Anglican Community Fund; and
(iv) various liturgical resources, activities and Bible studies eg Hot Gospel, Sustainable September, World Environment Day 5 June 2011, Diocesan Tree Planting Days etc. For more information please contact Claire Barrett-Lennard at cbarrett-lennard@perth.anglican.org.

OTHER AUSTRALIAN DIOCESAN ENVIRONMENTAL COMMISSIONS/ COMMITTEES
Canberra and Goulburn www.anglicancg.org.au
Grafton http://www.graftondiocese.org.au
Melbourne www.melbourne.anglican.com.au/main
Newcastle http://.angdon.com/environmental_commission/
Perth www.perth.anglican.org
Rockhampton www.anglicanrock.org.au
Sydney http://www.sds.asn.au/Site/104030.asp?ph=cp

CONCLUSION
I am delighted to be here to meet and confer with you all. Our agenda,

(i) to work out the process of our functioning as a network and determining how that will roll-out post meeting;
(ii) to equip and encourage each other in our vital mission; inspires confidence and strength of purpose in our conferring.

We are highly motivated people or we would not be here. We represent a Global Communion with well established "local franchises" in every corner of the world. We of all people are literally well placed to bring the considerable resources of our Communion to bear on Climate Change which is a global problem and by the Grace of God, renew the Earth.

+Tom Wilmot

22 June 2011

Recommended Reading

Australian Theologians/Environmentalists

The Weather Makers: The History and Future Impact of Climate Change.
Tim Flannery 332 pages. Text Publishing Melbourne Australia (2005) ISBN: 1 920 885 846.

From Gaia to easy ways to save the world, a landmark book! – An Australian "Silent Spring".

Breath of Life: A Theology of the Creator Spirit.
Denis Edwards 214 pages Orbis Books Maryknoll New York 10545 (2004)
ISBN 1-57075-525-6

A scholarly exploration of a Theology of the Spirit with practical connections from the Big Bang through to Making All Things New – a highly respected Catholic "Geologian".

Ecology at the Heart of Faith: The change of heart that leads to a new way of living on the earth.
Denis Edwards 146 pages. Orbis Books Maryknoll New York 10545 (2009)
ISBN 13:978-1-57075-665-8 (pbk).

A powerful tome on the need for a second ecological conversion and a mysticism of ecological praxis. Clear Catholic theology – already a classic!

Requiem for a Species: Why we resist the truth about Climate Change.
Clive Hamilton 286 pages Allen and Unwin (2010) ISBN 978 1 74237 210 5.

Clive Hamilton author of *"Affluenza, Growth Fetish"* and co-author of *"Silencing Dissent"*. One of Australia's leading (secular) thinkers. Professor of Public Ethics at the Australian National University.

From no escaping the science → organised denial → reconstructing a future: - "Hits the conservative right wing alliances so hard it makes you feel good all over: A 'Michael Moore style' Environmental Champion! +Tom

Judgement Day: The struggle for life on Earth.
Paul Collins 290 pages University of New South Wales Press (2010) ISBN 978 174223 156 3 (pbk).

Paul Collins is an Historian, Catholic Priest and Harvard Graduate Theologian – a heavy hitter, highly respected. This is a very dark book – hide all sharp objects before you begin to read!!

. . . "God's anger has come, and the day for judging . . . and for destroying those who destroy the earth" Revelation 11:18.

A very thoughtful contemporary prophetic work with a brilliant chapter on "Geologians" – an environmental thinkers "Hall of Fame" and a stunning conclusion which is stuck with Christian Hope!