Key issues for Australia's future in the global context and actions for us to take

A discussion paper prepared by the Public Affairs Commission of the Anglican General Synod of Australia
February 2009

Background

Decisive change in the global climate is one of the two greatest challenges the human race has faced, at least in recent centuries, the other being the risk of nuclear disaster. There are strong links to the growth of human population and consumption, and our responses will affect human survival. Major issues of social justice arise because the poorest communities will suffer most. A related key concern is how to care for the whole Creation: many of the other life forms on Earth are increasingly vulnerable to extinction and we have a moral obligation to help preserve as many of them as possible.

The development of this paper has been illuminated by contextual theology. The paper puts forward some ways to integrate environmental and social justice in our responses. It does not aim to be comprehensive but to outline key information, considered views, and action that can be taken on some of the big issues we face. On matters of such importance to humanity and the whole Creation, the voice of the Church needs to be heard.

Theological considerations[1]

Resolutions from the Lambeth Conference of 1998 reaffirm the Biblical vision of Creation as a 'web of inter-dependent relationships bound together in the Covenant which God has established with the whole earth and every living being'. In brief, they state that 'the divine spirit is sacramentally present in Creation, which is therefore to be treated with reverence, respect and gratitude'; and that 'human beings are both co-partners with the rest of Creation and living bridges between heaven and earth, with responsibility to make personal and corporate sacrifices for the common good of all Creation'. The conference recognized that 'unless human beings take responsibility for caring for the earth, the consequences will be catastrophic'. The relevant resolutions of Lambeth 1998 are substantial and they are set out in full in the Appendix.

[1] *In June 2008 the Public Affairs Commission invited the Rev'd Professor John Painter, Research Biblical Scholar at St Mark's National Theological Centre and Professor of Theology at Charles Sturt University, to address it on an Anglican approach to public affairs in a global context. His paper brought contextual theology to bear on urgent challenges the world now faces and has illuminated this paper. Professor Painter writes of God in creation, as Creator and Revealer, and of the need to recognize that 'procreation and the birth of children in the context of a loving relationship remain important, but within the limits that allow other species to flourish. Only then will there be a rich and diverse Earth life for our children and our children's children.' His paper will be published in the future.*

The Lambeth Conference of 2008 addressed the fifth mark of mission as adopted at Lambeth in 1988, viz. 'To strive to safeguard the integrity of creation and renew the life of the earth', stating that 'safeguarding creation is a spiritual issue' and that 'climate change is posing questions freshly for us about our attitudes toward creation'. The report and resolutions state that humanity is the instrument for sustaining God's creation, and that the Anglican churches must engage with other agencies with sound knowledge and experience to impact church members, various levels of government and the business communities. The relevant text from Lambeth 2008 is also set out in full in the Appendix.

It is highly significant that the Communiqué issued at the end of the 2009 Primates' Conference, recently held in Alexandria, included the following statement: 'We received a presentation on global warming and climate change followed by a discussion. There is a significant and growing body of statistics which demonstrates that this is a real problem and one in which humanity has a crucial responsibility. The scriptures call humanity to a careful stewardship of creation; we undertake to ensure that issues of climate change and the responsible management of our natural resources are items which are given urgent priority for reflection, study and action in our own Provinces.' This paper is offered as one resource.

Key issues in the global context

For the last quarter century Australian public policy has been preoccupied with maximising economic efficiency and individual income. Many economists have been so focused on economic growth that environmental responsibility, human services and social justice have not received the warranted degree of emphasis. Consequences of this preoccupation have been analysed (1, especially Chapters 2 and 5). At a global level the environmental changes that are now occurring, in which humanity plays a major part, are placing the Creation at risk.

We in the church have long recognized an obligation to address social justice issues nationally and globally. It is possible to re-orient policy much more deliberately towards seeking the well-being of all Australians, the common good of our society and the national contribution to global peace and justice. We need to press on with helping this to take place.

But it is not sufficient to address such themes. It has now become very clear that issues with a human focus cannot really be separated from environmental ones. The resources of the Earth are being used in ways that are not sustainable. High profile problems in Australia include soil destruction linked to extensive land clearing, and water deprivation of natural ecosystems because so much has been diverted for irrigation, which in turn raises a saline water table and destroys more land. Globally, we see starvation and misery that accompany increasing periods of drought in some regions. More severe weather events such as hurricanes, floods and fires are occurring, with loss of life and

property causing great distress. Ice in the polar regions is melting much faster than it is replaced, with potential for greatly accelerated global climate effects to follow.

The scientific evidence is clear: temperatures on Earth are warming at a pace that signals a decisive change in the global climate, and human activity is the main cause of the recent, rapid phase of temperature rise. Burning of fossil fuels - oil, gas and coal – and other gas production such as methane from agriculture have raised the level of heat-trapping greenhouse gases in the atmosphere. Natural sinks for their removal, such as forests, continue to be cleared for agriculture or development. Scientists warn that the changes will be highly significant. The evidence for such concerns has been well summarized for general readership; see for example Al Gore (2) and Tim Flannery (3).

There have been powerful interest groups denying the problem (3, Chapter 26). But the evidence is now so clear that there is no excuse for denial. We must all accept our responsibility to respond urgently and decisively.

Two levels of action are needed. The central focus has understandably been on the potential effects on humankind and what we can do about it, but it is crucial that we also show concern for the effects on other life forms – the whole Creation - and take action to preserve as much of it as possible. All life on earth is interdependent and precious.

A hopeful sign is that people of religious faith, scientists, economists and politicians are starting to develop common purpose and identify what we should try to achieve. This paper addresses examples of how environmental and social justice might be integrated for mutual benefit. The challenge then is for all to act decisively, generously and cooperatively – and urgently!

Human population growth and impact

The growth of human population, consumption and waste disposal is having enormous impacts on biodiversity. Before agriculture it is estimated that we numbered in total about 10 million. By AD 1 the population reached about 300 million, and it accelerated with onset of the industrial revolution, reaching one billion by around 1800. In 2008 we numbered 6.7 billion and are projected to reach 9 billion before our population will, if we choose, begin to decline. This is a thousand-fold increase in just 10,000 years (4, p. 301).

We are the dominant species on Earth in that we control the use of its resources, exploiting them for our own benefit. Our huge population is putting unsustainable pressure on the climate of the Earth and on other life forms. The International Panel on Climate Change (drawing on the meticulous work of thousands of experts from 130 countries) has become confident about the human origin of recent temperature increases (1, p.57). The rapid increase in human population, and related consumption and waste disposal, constitute the root cause both of the decisive climate change that is now occurring and of declining biodiversity. This is rarely acknowledged clearly, but our responses must address it.

Three books for general readership can be recommended to help understand the way humans have developed and the impacts they have had on their environment. 'The Rise and Fall of the Third Chimpanzee' and 'Collapse' by Jared Diamond (5,6) show that our species is at the highest point ever in the fraction of the Earth's productivity it commands, and that our power threatens our existence. Tim Flannery (Australian of the Year in 2007) in 'The Future Eaters' (7) describes how humans have repeatedly exploited resources in new lands in unsustainable ways, with particular reference to Australia.

What have been the human responses to such issues? Our world has tended to be dominated by market economies and economists and business people in recent times have tended to be optimists. In his book 'The wealth and poverty of nations' David Landes (8) considered that current economists were largely of the opinion the world will continue to get richer, the poor will catch up with the rich, and that knowledge can solve problems and overcome material and social difficulties along the way. But he noted that economists have not always felt this way: Adam Smith's successors anticipated stagnation; Malthus worried about the inexorable press of people on food supply; Ricardo thought there would be a stationary state as land and rent soaked up the surplus; Jevons raised the bogey of fuel exhaustion. Progress since their times largely allayed these fears although some economists have seen the problem of food supply as only postponed (8, p.515).

But Landes argues that - despite some confidence that we may no longer have to worry about exhaustion of this or that particular resource, because technology will find substitutes - we *do* have to attend to the 'serious, progressive, and possibly irremediable' damage we are inflicting on the environment. Waste, pollution, and environmental damage grow with wealth and output. Landes observes that at least some of the rich see the peril and their wealth permits them to spend on clean-up, sometimes dumping their waste elsewhere; that they abound in good ecological advice to the new industrialisers; that these countries note the pollution perpetrated by today's rich countries in their growth periods and are, as developing countries full of young people - with the confidence of youth and the tendency of youth to think they will 'live forever'- inclined anyway to pay the environmental price in order to have wages and riches now. Meanwhile, no-one can really confine the damage that results. (8, p. 516)

But richer nations such as Australia have a responsibility, and the wealth and capacity, to do much to make a difference locally and globally.

The effect on biodiversity

Comparing ancient art with today's living fauna there is striking evidence of the disappearance of species, coinciding with the expansion of human populations through the various continents. Individual examples of relatively recent high profile extinctions, following human habitation, include the thylacine in Australia, the moa in New Zealand and the dodo in Mauritius. But the current *trends* of animal extinction are truly shocking. The large-scale destruction of habitat, degradation of water and soil quality, air pollution,

the loss of rain forests and coral reefs are wreaking global havoc on biodiversity (4, p 303).

Driven by his informed concern, Edward O Wilson - a leading biologist, Harvard University professor for nearly five decades and Pulitzer Prize winner - has written a book 'The Creation: An appeal to Save Life on Earth' (9). He grew up in the Christian faith though he no longer holds to it, and in this book he argues that religion and science, the two most powerful forces in the world today, need to work together urgently to save the Creation. Scientists estimate that if habitat conversion and other destructive human activities continue at their present rates, half the species of plants and animals on Earth could be either gone or at least fated for early extinction by the end of this century (9, p.4-5 and Chapter 8).

What to do now, globally, to help preserve biodiversity

Wilson is puzzled that so many religious leaders have hesitated to make the protection of the Creation important to their followers. He asks do they believe that human-centred ethics and preparation for the afterlife are the only things that matter, and that the fate of ten million other life forms does not matter? He sees narrow doctrines of Christianity which do not take this big picture into account not as gospels of hope and compassion but rather of cruelty and despair (9, p.5-6).

It is not difficult to agree with Wilson that the great challenge of the 21st century is to raise people everywhere to a decent standard of living, while preserving as much of the rest of life as possible. The huge challenge is that humanity is in a bottleneck of overpopulation and consumption. As noted earlier, during the remainder of the bottleneck period to the end of this century the population will rise to nine billion and per capita consumption overall will also rise, increasing pressure enormously on the environment.

There is hope the impacts of population increase and the triggers for climate change can be brought under control, after a time. Some believe this can be done by already existing technologies that raise production, recycle materials, and convert to alternative energy sources; some also believe that corporations and nations committed to application and further improvement of technology for such purposes will be the economic leaders of the future (9, p. 92-3). But the context is that we have already passed the 'tipping point' of greenhouse gas concentrations for serious climate change, while we contemplate how to reduce them and avoid consequences in the long term (10, p.24-25). More concerning still is that, with the concentrations continuing to rise, the Earth is approaching a 'point of no return', which cannot be predicted accurately, from which no action we take would be able to avert catastrophic change (10, p.16-25).

In response we need to:

- change our own ways substantially and quickly to lessen our impact, and
- act urgently to save from extinction as much of the Creation - as many species - as we can, while the transition occurs.

Action:
In relation to changing our own ways, we need to:

- ***act urgently as individuals, and as the church, to lessen our environmental footprints, and be seen to do this.***

- ***encourage our governments urgently to set policy with incentives and regulations which will rapidly achieve much greater efficiency and environmental sensitivity in the use of energy, water, and land for agriculture***

- ***foster integration in thinking about problems, recognising that pressure linked to increases in population is the fundamental cause of them, and***

- ***question and work against the assumption that there has to be population growth in order to maintain economic growth as a prerequisite for human wellbeing.***

Amongst the thoughtful and practical publications that can help us is 'Ten Commitments – Reshaping the Lucky Country's Environment' (11). This book comprises a series of brief essays by leading experts on a wide range of ecosystems, economic sectors (fisheries, agriculture, mining, grazing and tourism) and cross-cutting themes. Each essay makes ten recommendations aimed at solving challenges of environmental sustainability. An aim is to enhance resilience, particularly in response to climate change, but the point is made that climate adaptation strategies may prove unsuccessful unless there are also serious attempts to tackle other environmental stressors. A recurrent theme of many chapters is the question of vulnerability of the communities and economic sectors that depend on and manage our environment and resources. The editors conclude that constant adaptation to change is a hallmark of resource-dependent societies, and that capacity will be more crucial in future as pressures on environments increase and climate changes (11, p.227).

The second aspect of our response to protect the Creation – saving species - is where scientists such as Wilson have focused. He sets out the case (derived from joint work of scientists and economists) that, if we choose, the greater part of the ecosystems and species that still survive can be brought through the bottleneck. The methods exist to save them and are being applied at local and national levels around the world, but only sporadically. The ongoing effort is still far from enough to save the bulk of species that have reached the critically endangered level, but nations have increasingly signed the Convention on Biodiversity initiated in 1992. The choice is save biodiversity during the next half century or lose a quarter of the species by then, with more to follow.

How might this be done? The following summary is drawn from Wilson's book (9, pp.91-99):

Species do not occur evenly over the land and sea, but in concentrations - 'hot spots'. The hottest of the hot spots are scattered around the world, sometimes in surprising places. Many of those on land identified by Conservation International in 2006 are listed in Wilson's book (p.95). Thirty-four of the hottest spots cover only 2.3% of Earth's land surface but they are the *exclusive* homes of 42% of the planet's vertebrate species and 50% of its flowering plants. They are by virtue of their limited area the location of many of the planet's most vulnerable species. A large majority of the species classified in the Red List of the International Union for Conservation of Nature as 'endangered' or 'critically endangered' live within the 34 hottest spots, including 72 % of mammals, 86% of birds and 92% of amphibians.

The results of global biodiversity studies are now sufficient for a successful application to conservation practice. Biologists have put a measure on the size of the problem, and they know how to give these precious biodiverse areas a place in the global future.

So what is the bottom line according to these experts? Conservation International sponsored a conference of economists and biologists to address this matter, in the year 2000. They reviewed the many methods available at that time to secure reserves while simultaneously improving local economies, then estimated the cost. They concluded that in order to protect 25 hottest spots on the land then recognised (nine more were added by 2006) plus core areas within the remaining tropical forest wildernesses (those of the Amazon and Congo basins and New Guinea) would require *one* payment of about US$30 billion (which would be somewhat more in 2009 dollars). The benefit, if the allotment were joined with wise investment strategy and foreign policy, would be substantial protection for 70% of Earth's land-dwelling fauna and flora. It would at least give time to devise new methods and polices for the long term.

This *single* outlay, or its equivalent spread over a few years, is approximately one part in 1000 of the *annual* gross domestic products of all countries combined. It is small compared with the initial US$700 billion provided for repair of the financial system in the United States, let alone the next huge US package and the total sum being provided by governments in all countries affected. Wilson speaks on behalf of many scientists and economists when he states emphatically it is a mistake to fear that saving biodiversity will be so expensive as to endanger the economy, ie the *market* economy. In contrast, it would be a relatively trivial cost for the *market* economy, and immensely profitable for the *natural* economy.

We in Australia need to take care of our own nation's biodiversity as well as contribute to global conservation. Australia is recognized as one of the Earth's 17 mega-diverse countries, containing exceptional variety, and our biodiversity is also particularly vulnerable to climate change; a succinct summary of the Australian challenges is given in reference 1 (pp. 81-86). Despite a wide range of national and state initiatives, there is still no integrated approach to biodiversity management and protection across all of Australia.

Action:

To save as much of the Creation as possible during transition, focusing on Australia, we need to:

- ***as individuals, support conservation of vulnerable life forms and ecosystems in our own environment and by our work for environmental causes that do so at a wider level***

- ***as the church, encourage individuals in their own actions and support similar conservation on church properties***

- ***as individuals and as the church, strongly encourage local, State and Federal Governments to act urgently to integrate the protection of vulnerable ecosystems and species in Australia.***

And at the international level we need to

- ***encourage the Australian Government to play a leading role on the international scene, with increased aid funding, to***

- ***protect the 'hottest hot spots' of biodiversity in the world, as a matter of great urgency, and***

- ***ensure that this investment improves the long term living standards of people who would otherwise find it necessary to increase habitat conversion and other human activities destructive to biodiversity.***

There is a universal moral imperative to save the Creation, based on both religion and science. Those living today will either avoid mass extinction, or allow it to happen. Urgent action is needed, and there is doubt that humanity can be generous and cooperative enough to take it in time. **It is a crucial time for the church to speak out.**

Reducing greenhouse gas emissions in Australia

As the developed country with the largest average greenhouse gas emissions per person *and still increasing*, Australia has a moral and political responsibility to reduce emissions swiftly and dramatically. Furthermore we are very vulnerable to global warming impacts and we have a natural abundance of renewable energy sources.

Ratifying the Kyoto Protocol signalled the start of Australian cooperation with existing global norms and preparation of more demanding global strategy. Preparation and implementation of a national strategy with ambitious, short, time-based targets is essential, combined with comprehensive programs for reduction in energy use and adoption of renewable energy technologies. Australia has been moving much too slowly on this matter - we are a long way off fulfilling our own moral obligations. And we must acknowledge that this undermines our credibility for persuading other nations to play their part in the changes that must be achieved globally. At Lambeth the Chair of the Anglican Communion Environment Network stated that if we are going to make significant progress internationally it will have to come from moral persuasion, because the arguments of economics and politics will not deliver. He observed that this has not

been something that is being driven strongly by any government in the world (press release from Lambeth, 26 July 2008).

We need to be aware of the relative emission contributions from different sources and their trends (see for example the Department of Climate Change website http://www.climatechange.gov.au/inventory). There is no shortage of advice on what we can and should do to reduce them, individually, as the church, as community and as a nation. As one example, social researcher Hugh Mackay's summary view is that we should not try to embrace a single solution, but assume we will be phasing out of coal altogether (while developing cleaner coal in the short term), probably over the next two decades, as renewable energy sources - solar, wind, wave, geothermal – come on stream (12, p. 309-310). Some Dioceses have Environment Commissions who have prepared Guides for Parishes available on their websites (eg Grafton, Canberra and Goulburn). Some excellent general references, which also focus on what we personally can achieve, include:

- 'An Inconvenient Truth' (2) pp 305-321, covering saving energy at home, getting around on less, consuming less and conserving more, and being a catalyst for change.

- 'World Changing – A User's Guide for the 21st Century (13), 'a compendium of solutions, some little known but well proven, some innovative and new, some bold but as yet untried' for 'a generation of everyday heroes...who...have the courage to…. act to meet this planetary crisis head-on.'

- Some websites with practical advice are listed in the Bibliography.

- 'The Weather Makers' (3) pp.302 – 306, covering understanding of how we are using electricity, green power, and transport options. Tim Flannery says a reduction of 70% by us personally is quite feasible; he has done it himself. He acknowledges that as we read through the list of actions to combat climate change we might be sceptical that such steps can have a huge impact, but they can.

'If enough of us buy green power and such technology as solar panels, solar hot water systems, and hybrid vehicles, the cost of these items will plummet. This will encourage the sale of yet more panels and wind generators, and soon the bulk of domestic power will be generated by renewable technologies. This will place sufficient pressure on industry that, when combined with the pressure from Kyoto, will compel energy-hungry enterprises to maximise efficiency and turn to clean power generation. This will make renewables even more affordable. As a result, the developing world – including China and India – will be able to afford clean power rather than filthy coal. With a little help from you, right now, the developing giants of Asia might even avoid the full carbon catastrophe in which we, in the industrialised world, find ourselves so deeply mired.'

Despite Flannery's basic optimism, since writing these words in 2003 he has become much more worried that we will not succeed in acting fast enough ('Enough

Rope', ABC TV, 22 September 2008; 10, p. 7-8). He thinks that having already passed the 'tipping point' there is now a better than even chance that, despite our best efforts, Earth's climate system will pass the 'point of no return'. He suggests that sustainability is essentially about extending the eighth Commandment (Thou shalt not steal) to future generations, and that societies that treat their members fairly, seek to eliminate poverty and great inequalities of circumstance and wealth, and in which care and love for each other is manifest in day-to-day life, are best equipped to deal with the great challenges of this century. He contrasts this with much emphasis in twentieth century life on individual enrichment rather than the wellbeing of others (10, p.61-62). He has come to the realisation that 'Earth was not made for us, but rather we were made for the Earth', but he thinks 'this realisation of our purpose is at odds with some of the most powerful currents in our Western civilisation, including the Christian tradition I grew up in. In fact it is diametrically opposed to them….' (10, p.4-5). His interpretation on this point deserves a constructive response from us in the church, showing that there is common ground in our wish to care for one another and for all life on earth.

Individuals and organizations can bring change about slowly, but Governments can greatly accelerate changes by developing and implementing policies. However, Governments are cautious – they want to optimise policy and they want to be re-elected. The public, and particularly the church, must show that we need and want our Governments to act decisively to meet this huge challenge, and encourage them through the inevitable politically painful stages. Failing to try will certainly fail our descendants. We need Government with conviction and determination. If it were to come to being voted out of office for having implemented a difficult but effective path for the nation to an environmentally sustainable future, history would judge that kindly indeed. Better that than holding on to office in the short term and eventually losing while achieving little or nothing for the longer term.

Public opinion can be fickle. The recent global financial crisis has had an impact on public opinion about priorities for government action, as shown by the latest Lowy Institute Poll Report, published on 29 September 2008 (www.lowyinstitute.org). Tackling climate change went from equal first priority in 2007 to fifth in 2008. A majority still thinks tackling climate change is important, but there is a contradiction between lower priority for action and continuing high perception of the threat posed.

The threat is so great that, despite the political hazards, decisive action must not be postponed. The message of 'Collapse' (6) and 'The Future Eaters' (7), and the hugely escalating concern of knowledgeable people must be heeded. Australia on its own cannot control the risks, some change will occur and some adaptation to change will be necessary. But we need to fulfill our proportional obligation and to lead by example so as to improve the likelihood of global cooperation that will avoid disastrous change. If that is not achieved we will be affected more than other developed nations, and the situation is not unfolding well.

The final Garnaut Report (14) was released on 30 September 2008 (www.garnautreview.org.au). It was commissioned by the Australian Government and

all State Governments and is a very substantial source of information, analysis, and conclusions to aid decision makers.

Some quotes:

'The Review takes as its starting point, on the balance of probabilities and not as a matter of belief, the majority opinion of the Australian and international scientific communities that human activities resulted in substantial global warming from the mid 20th century, and that continued growth in greenhouse gas concentrations caused by human-induced emissions would generate high risks of dangerous climate change.

The central policy issue facing the Review can be simply stated: what extent of global mitigation, with Australia playing its proportionate part, provides the greatest excess of gains from reduced risks of climate change over costs of mitigation?

- *The mitigation costs are experienced through conventional market processes and can be measured through formal economic modeling.*
- *But only some of the benefits of mitigation are experienced through conventional market processes, and others take the form of insurance against severe and potentially catastrophic outcomes and still others the avoidance of environmental and social costs which are not amenable to conventional measurement.*

The challenge is to make sure that important immeasurable effects are brought to account.

The long time frames involved create a special challenge, requiring us to measure how we value the welfare of future generations relative to our own.' (14, p.xxxv)

Garnaut recommended that Australia aim to achieve its proportionate share of global mitigation leading to atmospheric concentrations of 450 to 550 parts per million carbon dioxide equivalents. The concentration was about 280ppm carbon dioxide before industrialization, and currently we are virtually at 450ppm carbon dioxide equivalents and increasing (14, p.86). We don't know the threshold for irreversible, catastrophic climate change.

The Report says that the overall cost to the Australian economy of tackling climate change under scenarios of both 450 parts per million carbon dioxide equivalents and 550 ppm is manageable. Mitigation on the basis of 550 objectives was judged to generate benefits that exceeded the costs. Mitigation on the basis of 450 was thought to generate larger benefits than 550 (14, p. xxv). Professor Garnaut said on releasing the report that inaction could prove dire and that, if we fail, 'the failure of our generation will haunt humanity till the end of time' (The Canberra Times, 1 October 2008, p. 2; 14 p.xlv). He put the 550ppm scenario (with Australia aiming for 10% reduction on 2000 levels by 2020 and 80% by 2050) as one with a reasonable chance of a practical agreement. Yet it is expected that this, for example, would not save the basic three-dimensional coral structure of the Great Barrier Reef, whereas 450ppm might do so (14, p.127). Other examples include the Murray-Darling Basin, so important to Australian agriculture, which is already severely stressed; by 2100, with no mitigation, models indicate that irrigated agriculture in the Basin would decline by more than 90%, compared with 20% at 550 ppm and 6% at 450 ppm (ibid.).

When our PAC paper was first being drafted in October 2008, despite the enormity of the political challenge but recognising a substantial level of public support, there was hope that our Government might adopt as Australia's 2020 target a cut of 25% from our 2000 levels, and 90% by 2050 - aiming at the lower level of carbon dioxide equivalent in the atmosphere modelled by Garnaut (450 ppm). Now we know it has not. The Government issued its White Paper on Monday 15 December 2008 (www.climatechange.gov.au/whitepaper). The paper outlined the final design of the Carbon Pollution Reduction Scheme and the medium-term target range for reducing carbon pollution. It set out a carbon reduction target of just 5% on 2000 levels by 2020, and up to 15% in the event that developing nations agree to bigger reductions.

In response, Professor Garnaut said Australia should have been more ambitious and that the Government's targets have lowered the odds of an effective global agreement (The Canberra Times, December 20, 2008). He stressed that Australia has a stronger interest in mitigating climate change than any other developed country and that it would now be less able to play its role in achieving the strongest possible international agreements, the chances of which were not high. He said that lobbying by business had led to 'over the top' generosity to heavy-emitting industries, and also that, from a policy standpoint, the financial crisis should not be used to as a reason to 'go slow'.

On a more positive note, the new President of the United States of America said in his inaugural address 'nor can we consume the world's resources without regard to effect. For the world has changed and we must change with it.' There are signs of renewed leadership by the USA, the nation that has been the largest greenhouse gas emitter.

The matter is truly urgent.

Action:

- ***As individuals, and as the church, develop detailed understanding of our own energy footprints and act urgently to reduce them markedly***
- ***Encourage/engage/lobby local, State and Federal Governments to give the highest priority to encouraging and forcing lower energy footprints and to fostering large scale use of the technologies that will enable Australia (and other countries) to achieve major emission reductions***
- ***Encourage the Government to do its utmost towards cutting emissions by 90 % by 2050 and 25% (rather than only 5 %) below 2000 levels by 2020 (a fair share for Australia of a global target of 450 parts per million carbon dioxide equivalents)***
- ***Encourage the Government to work vigorously at the climate summit scheduled for Copenhagen in December 2009 for agreement on global and national targets that will avert global catastrophe.***

Examples of social issues linked to environmental issues

Three issues are considered below: poverty, housing for the homeless and potential social impacts of an Emissions Trading Scheme. There are many other issues that are likely to be addressed by PAC, particularly indigenous issues, but this paper has selected ones with a clear link to environmental issues.

(1) Addressing poverty – and confronting the 'scarcity myth'

With the global population set to increase further to nine billion, world leaders are challenged to find greater political commitment to addressing poverty and inequality. The message of the Lambeth Conference Walk of Witness was to encourage them in meeting this challenge, while recognizing that even if delivered, the Millennium Development Goals risk being undermined because climate change is already hitting the poorest hardest (Lambeth press release by the Archbishop of Canterbury, 24 July 2008). Examples were given at Lambeth about the native peoples in the Arctic Circle losing land to melting permafrost, the poverty of Haiti worsened by climate change, the increasing desertification of sub-Saharan Africa, increasing malaria and decreasing crop yields in Mozambique, and the risk that some Pacific island nations will lose their island homes as the sea level rises. Lambeth urged leaders to commit to ambitious cuts in carbon emissions, appropriate to the size of their economy and historic responsibility.

Another aspect is worth emphasis too. The challenge to provide food can provoke different thinking that leads to both environmental and economic gains. Frances Moore-Lappe (15) questions the underlying assumption that the problem is 'scarcity over there', caused by nature's vagaries and specific human frailties. Her message is that we humans are actually *creating* scarcity in so many different ways. Between a third and a half of the world's grain goes to feed livestock, and this is increasing even in lower-income countries as meat consumption increases there; the system for feed-lot cattle also squanders water. Typically, nearly a quarter of the total global marine harvest is thrown back dead or dying, in a world where over-fishing has led to declining catches of virtually every type of commercially sold fish. Nutritious unprocessed food is being transformed into highly marketed processed food that often leads to obesity, arguably afflicting as many people as go hungry.

But at the same time, unseen by most, there are people perceiving abundance where they had not before. The example given in this article is of a large city in Brazil where the government declared food a right of citizenship and triggered dozens of innovations such as moving funding for children's school lunches away from corporate processed foods to buying local organic food instead. The woman coordinating these efforts in city government said 'we had so much hunger in the world, but what is so upsetting, what I didn't know when I started this, is it's so easy to end it' (15). Another example, presented at Lambeth on video by Nobel Prize winner Wangarai Mathai, was of replacing the lost trees of Kenya, where after 35 years the people concerned are now achieving all they need for food, fuel and trade, and with the side benefit of reduced friction because there is more arable land to share. She urged the Bishops to do something such as plant a tree.

These kinds of successes can be seen as a modern day analogy to the feeding of the five thousand (Matthew, Chapter 14, verses 13-21).

Action:
To address poverty – as individuals, the church and nationally - we need to

- ***ensure that our overseas aid follows the principle of benefiting the environment through using resources as directly as possible, without waste, to reduce poverty and sustain people in the long term.***

(2) Housing affordability, homelessness, and related environmental issues

Rapidly rising house prices and increasing interest rates have reduced housing affordability and so human security. Homelessness is widespread and some waiting lists for public housing are a decade long. A recently released report from the peak body for homeless services, the Australian Institute of Health and Welfare, (http://www.aihw.gov.au/housing/sacs/aihw_green_paper.pdf)
shows that almost 188,000 people accessed homeless services during the 2006 – 2007 financial year. This was a 16% increase on the previous 12 months.

The poorest in our community are often homeless, or struggling to make ends meet in public housing. Governments need to act co-operatively to make housing more accessible and affordable through housing strategies which include creating conditions for moderate interest rates, release of additional land and rapidly building much more public housing.

The Federal Government has stated that addressing homelessness is one of their priorities. Part of the action will involve building more homes for the disadvantaged. This provides scope for creating homes that are highly energy-efficient, with benefits for the environment as well as the people who will pay for energy when in residence. Emergency relief organizations all too often see people who are placed in financial distress because of their energy bills.

Architects, builders and building owners make decisions, within financial constraints, which can often result in energy-inefficient homes, particularly if the rental market is tight and offers little incentive for investment in long term benefits. Moreover they do not have to pay many of the ongoing energy costs - tenants do so. Therefore it is important that governments require standards be met for the housing they commission, e.g. for building orientation, quality insulation, energy-efficient (preferably renewable energy) hot water supply, reverse cycle heating/cooling systems, and highly energy-efficient appliances. Economies of scale achieved in such exercises will help lower the costs for general building investment, and lower greenhouse gas emissions. Wider education of consumers is also needed, with particular attention to the disadvantaged, to assist with increased efficiency of energy usage.

Crises offer opportunities as well as threats. Thus the rescue package announced by the Australian Government in early February 2009, in response to the global financial crisis and its impact on Australia, will provide $6.6 billion for 20,000 new homes and $3.9

billion to insulate 2.7 million homes. Standards will be crucial for the future energy performance of the new homes. Re-building after the devastating fires in Victoria this month will offer further opportunities to respond to the challenges of climate change. Integration of future needs into present responses has never been more important, and there needs to be a clear focus on it.

Action:

- ***Encourage the Government to invest in highly energy-efficient housing for those on lower incomes, and also education for increased efficiency of energy usage, both to reduce financial stress and simultaneously to deliver benefits for the environment.***

(3) Social justice impacts of an Emissions Trading Scheme

With the anticipated introduction of an Emissions Trading Scheme in 2010, research is now being conducted on its likely impacts. It is expected that the costs of permits sold to carbon pollution emitters will be passed on until they are eventually borne by final users, having the effect of motivating them to change their spending away from carbon-intensive products. However, a research paper has recently been released which highlights the need for the Government to consider carefully a range of 'unintended consequences' of the introduction of the Scheme. David Richardson (16) looked at impacts on four groups, State and local governments, the community sector and the Australian Government. Although the Government has already flagged the need for compensation for households, Richardson notes that impacts on the above four groups were not covered in the Government's green paper, and he calculates that each of them will also require significant compensation. He expresses surprise that there has been no indication that the Government it will provide compensation to such sectors of the economy, which are responsible for the provision of services to the most vulnerable members of the community.

Action:
The church needs to monitor the processes for achieving social justice in the introduction of the Emissions Trading Scheme.

Should our population keep increasing in Australia?

The following discussion draws on two publications which assist understanding of population issues for Australia:

- The Australian Academy of Science published the proceedings of a Symposium on 'Population 2040, Australia's Choice' (17)
- Quarterly Essay published issue No.9 entitled 'Beautiful Lies, Population and Environment in Australia' by Tim Flannery, with additional articles by a range of commentators (18).

Australia is a fragile land, yet it has had a higher rate of population growth than any other developed nation, largely due to its high level of immigration (16, p.83). Australia's

population passed 21 million in March 2008 without public comment on the appropriateness or otherwise of further growth.

There have been phases in attitudes to population in this country. Attempts to estimate the carrying capacity of Australia took place before the Second World War but stopped with its onset, and did not resume when massive immigration programs were implemented after the war. A 1975 study concluded that 'With food export eliminated… (food)…could be supplied for 60 million …without…agricultural instability. If…the present…proportion of food export (65%) (is)…maintained, then of the 60 million people supportable on Australian protein diets, only 22 million could be resident in Australia.'(17, p.10), and this was before many agricultural land problems had become so evident in Australia. There was, however, no debate or policy on population during the Cold War.

Following the Cold War, attention shifted to the insistent problem of environmental damage, and commentators sensed the re-opening of the debate over the limits of population (17, p.11). Reports were prepared for government but without recommendations for Australia. The debate over the economics of population has been transformed in several ways, with extremes (such as a vision of growth without limit) being abandoned because environmental change is now too fast and massive and too clearly linked to the activity of people. There is also evidence in developing nations of a correlation between slowing of population growth and rise in individual affluence, which has won many to the view that population control is essential to economic well-being (17, p.14).

However, despite acceptance by the Government in Australia of the importance of environmental issues, there remains a strong commitment to constant economic growth of 3-4% per annum. Faster growth threatens inflation, slower threatens stagnation, in each case leaving the poorest and neediest people in poverty. The contradiction runs deep between commitments to our environment for the sake of our children and on the other hand to constant growth for increased wealth for many, as well as for the relief of unemployment and poverty.

Until fairly recently, e.g. the UN Rio de Janeiro Conference of 1991, the environment was seen as requiring attention within an overall framework of economic management. Increasingly there has been a shift towards viewing economics as an issue requiring attention within the overall framework of ecological management (ibid.). But economic growth is still the prime focus and there is no hint of policy for limiting the population pressure on Australia's fragile land. Evidence of this is the sizeable baby bonus introduced in 2007 by the then Federal Government to encourage natural population increase, combined with substantial ongoing immigration, and the lack of expression by government of any reflection on reaching 21 million with no cessation of growth in sight.

There has, however, been a call for the articulation of a national population policy, for a stable population size from 2050 of 25-27 million people, and related recommendations in the publication 'Ten Commitments' (11, p. 169)

A thought-provoking article 'Of myth and men' by journalist Crispin Hull appeared in The Canberra Times on 20 December 2008, page B7. He said governments and other special-interest groups find population figures useful in arguing other agenda, but the facts are often misunderstood. He writes to dismiss 'myths' or misconceptions including that wealth (per person) rises with population, that there has been a steady rise in populations and living standards, that an ageing population will put an unbearable strain on economies such as Australia's so we must strive for a younger population through immigration and boosting births, that immigration gets us a younger population, that we need population to stop overpopulated countries from invading our empty spaces, and that we need population to be an important force in the world. He points to self-interest on the part of some groups that encourage population growth, and to the link between an increasing population and the difficulty of making significant decreases in Australia's greenhouse gas emissions (which he refers to as the Government's excuse for a weak greenhouse gas reduction program). He concludes by saying 'Most weeks in Australian politics in the past 30 years some policy has been announced without any reference to population, even though it is a critical ingredient in the policy's fate.'

Awareness of all the factors in complex policy matters is not easy to achieve but integration must be attempted. Population is a key factor. Australia needs to avoid contributing itself to global overpopulation. It also needs to contribute effectively to restraining global population growth. An effective way to do so would be to increase our contribution to the UN Fund for Population Activities from around $4 million per annum in 2007, noting that The Netherlands provides $70 million per annum.

Action:
To fulfill our responsibility to future Australians and to the Creation, especially given the serious environmental problems faced by this country, we need to

- ***call on the Federal Government to place economic policy firmly in the overall framework of environmental management and well-being, not the other way around, and to recognize that population policy is necessary to achieving balance; and***
- ***encourage the Government to contribute further to restraining global population growth through the UN Fund for Population Activities and other appropriate international channels.***

The desire to welcome people from other lands has one implication for Australia's population policy, but the impact on the Australian land mass has the opposite implication. The conflict between these cannot be ignored. During the delay in addressing it the size of our population and the damage it causes are growing.

The issue of population has steadily been separated in Australia from issues of ethnic tolerance and racism, concerns which had for some decades inhibited discussion of population. We now need to fulfill our global obligations in ways that make long term environmental sense for Australia.

At the same time, reinvigorated multiculturalism is essential for effective inclusion of marginalized groups including recent migrants. Effective commitment to multiculturalism requires comprehensive arrangements for welcoming migrants, explicit opposition to discrimination and upgrading of educational and community development programs.

Global security and justice

International security and development have been undermined by some of the actions taken, in the early years of this century, without adequate rationality and respect for international law. As a consequence, the world has become more insecure and violent, at the same time as it is becoming more climatically unstable. It is essential to avoid conflict that makes matters worse.

Strengthening international security requires renewed commitment to the international rule of law based on the United Nations Charter. There is no better way available. Australian security involves seeking peaceful solutions to conflicts through diplomatic negotiation, advocating steps towards nuclear disarmament by all countries holding nuclear weapons, reducing wasteful and provocative military expenditure, and re-engagement with the UN.

Equitable international development is necessary to underpin future world stability and it requires increases in aid, especially by the least generous donors such as Australia. Globalisation has largely meant the first world has moved its operations around the globe to where the exploitation of both resources and people can best be achieved. This has led to a chain of problems and in many instances increased the gap between rich and poor, noting that environmental damage always decreases the capacity of the poor to survive. Climate change is making droughts and extreme events more frequent and more severe, affecting the poorest most. Wars over resources have occurred and could well increase in the future, always having devastating effects on the poorest.

Some countries will descend into such chaos and inhumane treatment of adversaries that political refugees must be accepted by other countries, including Australia. Political asylum seekers need to be treated humanely here, avoiding harshness and long-term detention such as has occurred in the past. Australia's share of genuinely distressed people needs to be welcomed warmly.

However, the main focus needs to be on aid for improvements in other countries. There is a powerful case for a substantial increase in international aid by individuals in Australia and by our Government. Education broadly underpins human wellbeing and continues to deserve strong support, but there is a special case now for an aid focus that enables conservation of biodiversity at the same time as it enables people to achieve appropriate and sustainable living standards. This, together with responsible reductions in our emission of greenhouse gases, and assistance to others to do the same, should be our key positive contributions to the preservation of the whole Creation.

Action:

Increase international aid, by individuals and by the Government, to underpin future world stability through

- ***education and***
- ***conservation of biodiversity***

while achieving

- ***appropriate and sustainable standards of living and***
- ***lower emissions of greenhouse gases.***

Bibliography

1. Langmore, John, 'To Firmer Ground: Restoring Hope in Australia', UNSW Press, 2007, 251 pages.

2. Gore, Al, 'An Inconvenient Truth – The Planetary Emergency of Global Warming and What We Can Do About It', published by Rodale Inc, New York, 2006, 325 pages.

3. Flannery, Tim, 'The Weather Makers – The History and Future Impact of Climate Change', Text Publishing, Melbourne, 2005, 332 pages.

4. Carroll, Sean B, 'Endless Forms Most Beautiful', published by W W Norton & Co Inc, New York and London, 2006, 350 pages.

5 Diamond, Jared, 'The Rise and Fall of the Third Chimpanzee', published by Random House, Vintage edition, 2002, 360 pages.

6. Diamond, Jared, 'Collapse: How Societies Choose to Fail or Succeed', Viking Books, 2005, 592 pages.

7. Flannery, Tim, 'The Future Eaters', Reed Books, Chatswood NSW, 1994, 423 pages.

8. Landes, David S, 'The Wealth and Poverty of Nations – Why some are so rich and some so poor', W W Norton & Co Inc, New York and London, 1999, 657 pages.

9. Wilson, Edward O, 'The Creation – An Appeal To Save Life On Earth', W W Norton & Co, New York and London, 2006, 175 pages.

10. Flannery, Tim, 'Now or Never – A sustainable future for Australia', Quarterly Essay Issue 31, 2008, pp 1-66.

11. 'Ten Commitments – Reshaping the Lucky Country's Environment', Editors David Lindenmayer, Stephen Dovers, Molly Harriss Olson and Steve Morton, CSIRO Publishing, 2008, 237 pages.

12. Mackay, Hugh, 'Advance Australia…Where?', published by Hachette Australia, 2007, 356 pages.

13. Steffen, Alex (Editor), 'World Changing – A User's Guide for the 21st Century', published by Harry N. Abrams Inc, New York, 2006, 596 pages.

14. Garnaut, Ross, 'The Garnaut Climate Change Review', Final Report, Cambridge University Press, 2008, 634 pages.

15. Moore-Lappe, Frances, 'The Scarcity Myth', in The Ecologist, Volume 23 No. 2, 2003, www.theecologist.org, reproduced in 'Seasons of the Spirit Congregational Life Pentecost 1', August 2008, pp.111-112.

16. Richardson, David, 'Who are the (un)intended losers from emissions trading?', Research Paper No.55, The Australia Institute, Canberra, September 2008, 9 pages.

17. Australian Academy of Science and authors, 'Population 2040 Australia's Choice', published by the Australian Academy of Science, Canberra, 1995, 144 pages.

18. Flannery, Tim, 'Beautiful Lies – Population and Development in Australia', Quarterly Essay Issue 9, 2003, pp. 1-73.

Some internet sites to assist with reducing emissions:

http://www.climatechange.gov.au/resources/community.html
http://www.acfonline.org.au/custom_greenhome/calculator.asp
http://www.abc.net.au/greenatwork/GreenYourWork/Calculators.html
http://www.epa.vic.gov.au/ecologicalfootprint/calculators
http://www.wwf.org.au/footprint/calculator
http://ecofaith.org/footprint
http://www.climatecrisis.net

Appendix

Lambeth Resolutions from 1998

http://www.lambethconference.org/resolutions/1998/

Resolution I.8: Creation

This Conference:

a. reaffirms the Biblical vision of Creation according to which:

   Creation is a web of inter-dependent relationships bound together in the Covenant which God, the Holy Trinity has established with the whole earth and every living being.

   i. the divine Spirit is sacramentally present in Creation, which is therefore to be treated with reverence, respect, and gratitude;
   ii. human beings are both co-partners with the rest of Creation and living bridges between heaven and earth, with responsibility to make personal and corporate sacrifices for the common good of all Creation;
   iii. the redemptive purpose of God in Jesus Christ extends to the whole of Creation.

b. recognises:
   i. 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
      plant and animal extinction;
   ii. that the loss of natural habitats is a direct cause of genocide amongst millions of indigenous peoples and is causing the extinction of thousands of plant and animal species. Unbridled capitalism, selfishness and greed cannot continue to be allowed to pollute, exploit and destroy what remains of the earth's indigenous habitats;
   iii. that the future of human beings and all life on earth hangs in balance as a consequence of the present unjust economic structures, the injustice existing between the rich and the poor, the continuing exploitation of the natural environment and the threat of nuclear self-destruction;
   iv. that the servant-hood to God's creation is becoming the most important responsibility facing humankind and that we should work together with people of all faiths in the implementation of our responsibilities;
   v. that we as Christians have a God given mandate to care for, look after and protect God's creation.

c. prays in the Spirit of Jesus Christ:
   i. for widespread conversion and spiritual renewal in order that human beings will be restored to a relationship of harmony with the rest of Creation and that this relationship may be informed by the principles of justice and the integrity of every living being, so that self centred greed is overcome; and
   ii. for the recovery of the Sabbath principle, as part of the redemption of time and the restoration of the divinely intended rhythms of life.

Resolution I.9: Ecology

This Conference:

a. calls upon all ecumenical partners and other faith communities, governments and transnational companies:
    i. to work for sustainable society in a sustainable world;
    ii. to recognise the dignity and rights of all people and the sanctity of all life, especially the rights of future generations;
    iii. to ensure the responsible use and re-cycling of natural resources;
    iv. to bring about economic reforms which will establish a just and fair trading system both for people and for the environment.
b. calls upon the United Nations to incorporate the right of future generations to a sustainable future in the Universal Declaration of Human Rights.
c. asks the Joint Standing Committee of the ACC and the Primates to consider the appointment of a co-ordinator of an inter-national ecological network within the Anglican Communion, who would:
    i. work in co-operation with other ecumenical and interfaith agencies;
    ii. be funded through and responsible to the Anglican Consultative Council;
    iii. support those engaged in grass-roots environmental initiatives;
    iv. gather and disseminate data and information on environmental issues so that the Church can play an informed role in lobbying for ecological justice in both the public and private sectors; and
    v. contribute to the development of environmental educational programmes for use in the training of Christian leaders.

Lambeth Resolutions from 2008

http://www.lambethconference.org/resolutions/2008/

Section D: Environment

59. The fifth mark of mission is: "To strive to safeguard the integrity of creation and renew the life of the earth." So far this is the mark of mission least universally owned by the churches of the communion. If we say that "The earth is the Lord's…", we must be prepared to live as if that is true! We can not misuse a gift from the Lord. If we are to call ourselves disciples of Jesus Christ, we must be prepared for radical discipleship by "living simply, so that others may simply live." Safeguarding creation is a spiritual issue. Climate change is posing questions freshly for us about our attitudes toward creation, technology, sustainability for a future, and justice for all people. This is a discipleship issue not something we might possibly do. When others see that we Anglicans take the issue of environment seriously, they may be drawn to work alongside us, and in so doing they may see the Good News of Jesus Christ proclaimed in action.

60. Ignorance of the issues of environment is a priority that must be addressed. Stories shared from bishops around the Communion give a picture of a global crisis. There are many examples including water pollution, dumping of toxic waste, air pollution, deforestation, irresponsible disposal of garbage. It is clear that the personal level exchange of issues being faced (with first hand knowledge) has a greater impact on us than Western media reports. Environment is the top priority for some provinces and must be a high priority for all of us. In developing countries and among Indigenous peoples, notably in the Arctic, safeguarding creation is a day to day activity, not an intellectual exercise. The Communion's bishops should take a leading role by example, modelling a simpler lifestyle, using a carbon offset for meeting travel, or travelling less!

61. While many agencies can engage with environmental issues, the church must do so from the starting point of Scripture and a credible theology. One particularly difficult Scripture reference has been Genesis 1:28 where the words 'have dominion over' or 'subdue' have been misinterpreted as 'Do whatever you want with the earth.' If humanity is made in the image of God, who saw that creation was good, then humanity needs to learn to care for God's creation. Theologies of creation, Sabbath, stewardship and "enough" need to be developed for general use. Creation did not fall, humanity did, and this has led to the destruction of creation. Some of the symptoms of this human sin include selfishness, greed, consumerism and overindulgence. The destruction of the environment is a spiritual issue and the church can suggest taking actions in terms of spiritual disciplines, including repentance of ingrained habits that are ecologically irresponsible. This is not just trying to fix up the world but living toward the hope of the promised redemption of the creation by God.

62. Indigenous peoples have traditional understandings of the earth as a gift of the Creator and of their relationship to it and its creatures being one of interconnectedness and responsible caring. The Indigenous peoples have reminded us that we are not aliens in a wilderness to be conquered, but integral parts of the created order, as are plants and animals, which are to be cherished and nurtured. The Anglican Indigenous Network could provide good resources for the Communion to develop these ideas more fully.

63. Many examples of destruction focused on various concerns about water. Water is central to baptism, the sacrament of new life. This is a reminder that we have a responsibility for those yet to be born to ensure conditions for their potential life and flourishing. The Communion, Provinces and Dioceses could focus on one major campaign - the human right to water.

64. There is only one instrument for sustaining God's creation – humanity. To get people moving requires moral leadership and this is the role of the church together with other aware bodies, e.g. the United Nations. The Anglican churches must engage with other agencies with sound knowledge and experience to impact church members, various levels of government and the business communities.

What can the church do? Take action! Do not wait any longer!

65. **Education**: Engage with scientists to have accurate and credible information. Scriptural and theological education should be available for seminary students to produce knowledgeable clergy and lay leaders to engage congregations. We need educational materials to encourage children and youth to engage with programs for change. Adult education materials for parishioners would be helpful. Every Anglican must understand that it is their personal responsibility to live a rule of life that sustains and restores God's creation. The changing climate is a call upon us to examine our impact on the environment – as individuals and as a community of faith with buildings.

66. **Empowerment**: There is also an opportunity for bishops to raise the consciousness of church members as well as the public. The Communion/Province should position itself to be a symbol for ecological commitment to sustaining and renewing God's creation. Dioceses and parishes provide opportunities for learning and action. People respond well to specific, simple actions, e.g. plant one tree each year, use no plastic in the churches, walk whenever you can instead of using a car. Bishops can also have specific actions, e.g. plant a tree on each parish visit, focus sermons for one season on the Environment. "Green Awards" are also incentives to dioceses and parishes to decrease the damage they do to creation and improve the ways they contribute to renewing the earth.

67. **Advocacy**: The Bishop is often in a position to make connections with levels of government and business where there are opportunities to advocate for change. Accurate information containing requests for specific actions must be at hand. As well the bishop can maintain ecumenical and interfaith connections in order to speak with one voice to the powers. The Bishop is also often needed/wanted as a public figure to head up campaigns but these should be chosen keeping the suitability of the campaign.

68. **Liturgy**: The Communion and Diocesan worship committees can develop worship resources on creation and environmental themes, and use the liturgical seasons for environmental awareness, e.g. planting time and harvest thanksgiving, the memorial of St. Francis, a Lenten fast from energy consumption. Scripture that speaks to the integrity of creation can be identified in the Lectionary and support materials be made available for study and preaching. (e.g. Genesis 1:27, 28, 29 or 9:11; psalm 8; John 1:1-3; Romans 8:18-21; Colossians 1:15-20)

69. **Empowerment for Action**: Think globally, act locally and globally. Work ecumenically and with other faith groups to lobby governments for laws and implementation of international agreements, e.g. Kyoto and Copenhagen 2009. The bishops could also have a reconciling role for brokering conversations between business, government and environmentalists. We must be aware of the political and economic aspects of caring for creation. Ecology and economics are connected. The desire for economic development can start a vicious cycle of damage to the environment. Damage to the environment creates conditions that impact developing nations and those living in poverty (women and children) first. Economic improvements for one group may bring environmental disaster to another. In many Provinces, this is especially true for Indigenous Peoples. Bishops need to learn how to exert pressure on governments in regard to environmental issues and this means they have to be correctly informed and have credibility with governments.

70. Environmental destruction is also connected to internal displacement of people and to migration. Sometimes the creation is deliberately destroyed by companies seeking access to resource, such as oil, and the local people are driven away. Sometimes, when the land is devastated by natural disaster, the people migrate seeking safety and a livelihood.

****