

# LOVE, POWER, AWARENESS AND CREATION



anglican diocese  
of canberra & goulburn

**Commission for the Environment,  
Anglican Diocese of Canberra and Goulburn**

*And [God] showed me more, a little thing, the size of a hazelnut, on the palm of my hand, round like a ball. I looked at it thoughtfully and wondered, 'What is this?' And the answer came, 'It is all that is made.' I marvelled that it continued to exist and did not suddenly disintegrate; it was so small. And again my mind supplied the answer, 'It exists, both now and forever, because God loves it.'*

Julian of Norwich 'Revelations of Divine Love' Chapter 5

## **PREFACE**

For the Christian there is always the potential for tension between our perception of the world as a citizen and as a Christian. This can be especially true in the context of our civic responsibility towards the environment; or is it our Christian responsibility before the Creator towards Creation? Is there any difference between what decisions we would make in each case? Would we come to the challenges with different values and perspectives? This material is intended to provide a starting point for groups wishing to reflect on issues related to the development of a proper Christian response to the environmental challenges we face. It is based around nine columns written by various members of the Commission for the Environment and published in the Commission's monthly column in *Anglican News*, the Diocesan newspaper.

While the material could be used by individuals, it is primarily intended to be used by small discussion groups. In this case it is expected that participants read and reflect on the session material and the related questions before each session. At the meeting the responses of participants to the material, the scriptural passages and then to the questions, can be shared.

There are nine sessions in the material, which may be too many for some parish programmes. If so, please use sessions 1, 2, 3 and 9 and as many of the others as time allows.

There is no necessary presumption of consistency of views between the column authors, and the material does not necessarily represent the views of either the Commission or the Diocese.

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## 1. LOVE, POWER, AWARENESS AND CREATION

*You can show your great power any time you wish, and no one can stand against it. In your sight the whole world is a grain of sand, ... a drop of dew on the ground in the morning ... you love everything that exists: you do not despise anything that you have made. If you had not liked it you would not have made it in the first place.*

*(Wisdom 11:21-22, 24)*

One morning recently whilst swimming in shallow, still ocean water I noticed ahead of me a shadow and, supposing it to be seaweed, I kept swimming. The 'weed' turned out to be a huge sting ray. Now I know that the barb of a sting ray is extremely painful and in some cases life threatening. Here was this huge ray only inches under me yet, in those first seconds of recognizing it, a choice between love and fear seemed to happen within me. The experience of such physical closeness to this gracious creature was one of pure gift. For a moment the sting ray remained where it was, then it slowly moved away.

In reflecting on this experience, I was struck by the sense of the silent movement of this beautiful creature towards me whilst I remained unaware of it until it was right underneath me. I was surprised by the close encounter, having entered the water with no expectation of such a meeting or indeed awareness of the presence of the sting ray. But I was also touched by the intimacy of the encounter and a powerful sense of love for this sea dweller. I began to reflect on awareness, love and power in our relationship with creation.

The words of Wisdom from the Old Testament (above) speak of the immensity of both God and the created cosmos. We are indeed like a grain of sand in the face of such immensity and yet as the writer of Wisdom says we are sustained by the love of the Creator. God's love for everything that exists forms the basis of a Christian ecological ethic of living. We may not yet be capable of such a love or of seeing the whole world in a grain of sand yet we are called to grow towards such love and awareness.

The Wisdom writer also speaks of great power. What then is the relationship between love and power and how do we understand these in our own relationship with God's creation and the, often unseen, processes of nature?

From processes in the ozone layer that protect us from UV radiation, to the network of biochemical activities found inside each cell in our bodies, we are surrounded by unseen processes and activities that maintain us and the world in which we live. Such complexity in creation is outside our usual sphere of awareness. Yet, as we go about our day-to-day activities, these processes of creation go on in an invisible life-giving dance. The power inherent in this activity, given by God the Creator, is indeed awesome.

Humanity, however, often misappropriates power in life-denying ways. This abuse of power is evidenced by such things as our voracious appetite for often unnecessary consumer goods, over-reliance on fossil fuels as an energy source, cruelty to animals in the livestock trade, deforestation and resulting loss of habitat for non-human life and so on. We see creation as being human centred and therefore live as though creation is here to serve us. We live as though we have no dependence on other life in the whole earth community; as though we are sufficient to ourselves and are entitled to exert power in whatever way we like over other life.

As Christians, we say that we are here to serve God; that our power is only in God. To really live out such a belief we must ask ourselves who, in reality, do we serve? Surely, if we answer by saying we serve God, then we must also serve God's creation. If we say, along with the Wisdom writer, 'You love everything that exists' then surely we too must at least attempt to love 'everything that exists'. This love will recognize not only our own interdependence with all creation but will also desire the integrity and fulfilment of all creation.

The power of geological events such as earthquakes and tsunamis can be seriously destructive and of a kind that we humans cannot 'stand against'. Such destructive power is part of the evolutionary process. The power of God however is the power to love even in the midst of destruction and at times when that love may seem invisible to us. It is the power of love that we know in the reality of Christ on the cross.

We human beings have been gifted with great love and power even though this often seems hidden or outside our usual awareness. But the love and power with which we have been gifted is divine in origin. The whole earth community, of which we are a part, and with whom we have interdependence is suffering. For too long we have used our power to exploit creation. Many Christians today however are recognizing the call to care for creation. Such caring begins with awareness, which precedes action. Let us all grow in our awareness of the life process and our part in the dance of life. Let us learn to use our power in the truly Christian way that Christ shows; use not for power over, but for the purposes of love. And let us always live in gratitude for the unseen forces of nature that sustain us, as we are also mindful of the ways in which humanity debilitates nature. Our true power may indeed be in our capacity for co-creativity with God. May we grow in the capacity to 'love everything that exists' and act for the integrity of creation.

### **A Scriptural Perspective**

Job 38:1-27; 40:1-5

### **Points to Ponder**

1. Can you recall an occasion when you were particularly touched by an encounter with the natural world? Spend time reflecting on this. Stay with the experience. What do you notice? Is there a sense of God's presence/love in the experience or not?
2. How does the concept that the cosmos is more than just a backdrop to your life and, more generally, to that of humankind, affect you? Does a sense of relationship to the rest of creation (or lack of it) affect your attitude to the way you believe we can use natural resources.
3. When confronted with the need to make behavioural decisions about the environment, what values do you use? (If possible make a list of these for reconsideration in later sessions.)

## 2. CONTRACTION AND CONVERGENCE – A WAY FORWARD

In 1990 a small British institute called the Global Commons Institute presented an idea aimed at solving the global crisis resulting from climate change. They were interested in two issues, *equity*, between the various peoples of the world, and *survival* through the maintenance of the present planetary climate regime. Their proposal was called Contraction and Convergence (often given the acronym C&C).

The concept assumes that there are limits to growth in fossil fuel consumption if a climate crisis is to be avoided. A typical scenario addressing the issue of *survival* under C&C would be to stabilise carbon dioxide levels in the atmosphere at about 450 parts per million by volume. This compares with the present (unstable and still rising) level of atmospheric carbon dioxide of 360ppmv. This is not to claim that 450ppmv is not without serious risk, given that claims of detectable effects are made for the present levels of atmospheric carbon dioxide. If this level is accepted then the scientific community can be asked to estimate the annual world emission rate that would be sustainable (probably about 60% of the present emission rate, as the present emission rate would ultimately lead to much higher levels). Such a generous scenario however would still mean *contraction* in use by the developed world and restrictions on how much carbon dioxide could be released by developing countries in the future.

Equity is addressed by proposing that future entitlements to emit carbon dioxide should be equalised globally on a per capita basis. That is, when fully in place, say in forty or fifty years time, each individual in the world would be entitled to emit the same amount of carbon dioxide measured on a national basis. This is the proposed *convergence*.

It is hoped that this, more inclusive process, would break the present international stalemate that we see in Kyoto negotiations. The US refuses to ratify the Kyoto Protocol until major developing countries commit to curbing their gas emission and points out that developing countries will be responsible for more than half the emissions by 2020. On the other hand, the developing countries point out that emissions by developed countries are thirty times that of the developing world on a *per capita* basis and they now want their turn to use fossil fuels to aid their development, as the developed countries have done in the past. No wonder there is an impasse! Australia has also refused to sign the Protocol.

Basically, the C&C system would provide the basis for a world carbon budget but, because the budget will not be big enough for all to do whatever they wish, carbon emission will need to be rationed on an equitable basis. There are three components to this. Firstly, the budget must be global; every country shares in the atmosphere and its absorptive capacity must be allocated so that no-one gains and no-one is deprived of their share. Secondly, the present situation, where allocations are generally proportional to wealth must be replaced. Thirdly, each person must be entitled to the same amount of greenhouse gas emissions (on a country basis). Studies during the World Wars showed that rationing only works if it is perceived as fair and it is claimed that the C&C system can be seen as fair.

There are practical implications with this approach. Developing countries would have strong incentives to direct as much as possible of their development down non-fossil-fuel based energy pathways. As well the C&C mechanism would allow them to sell their unused annual emission entitlements to finance development without the need for massive debt-causing loans. At the same time developed countries would be able to purchase emission entitlements to gain time while they rebuild their infrastructures.

While some European and developing countries have expressed varied levels of support for C&C as the basis for a long-term solution, it is early days in the process of exploring just how such a system would work. The Anglican Church, as well as the World Council of Churches, has expressed support for C&C and some of the many statements can be found at:

[http://www.archbishopofcanterbury.org/sermons\\_speeches/040705.html](http://www.archbishopofcanterbury.org/sermons_speeches/040705.html)

<http://news.bbc.co.uk/2/hi/science/nature/3866543.stm>

<http://www.wcc-coe.org/wcc/what/jpc/moscow2003.html>

<http://www.ecen.org/topclim.shtml>

<http://www.web.net/~tendays/wcc.htm>

### **A Scriptural Perspective**

Lk 12.13-21,.32-34

### **Points to Ponder**

1. How does the tone of this column 'feel' compared to the tone of the last column? Which do you prefer? Why? Which is valid?
2. How should the needs of our community be balanced against the needs of other communities in the world. What does 'justice' mean in this context? How could it be determined? Would you consider this form of justice to be congruent with Gospel values?
3. The World Council of Churches actively organises demonstrations and other 'events' in the cities where G8 and other international bodies meet on global warming, etc. Should the churches be involved in this way? Why? Are there limits to what they should do?

### **3. WHAT ABOUT GREEN POWER?**

#### **Green energy facts**

More than 90 % of Australia's energy needs are sourced from coal, oil, and gas, and related fossil fuel derivatives. The remaining 10 % comes from renewable sources, however most of this is from hydro-electricity generated from large dams. These are generally considered a lighter shade of 'green', because of the damage caused by ecosystem/habitat changes in creating flooded storages, and from disruption to natural flow patterns.

Green power schemes are those set up by energy retailers to provide electricity to customers only from green energy sources, and can be defined as that obtained from sources where generation results in minimal damage to the environment. That is:

- large dam hydroelectricity production is 'out', so are nuclear, co-generation from gas heating plants, energy produced from coal seam methane, and biomass when produced as by-products from old growth forests;
- 'in' are solar thermal and photovoltaic (PV) processes, as are generation from small hydro, wind power, biomass from plantation and crop residues, landfill methane and emerging technologies (eg. micro-turbines and fuel cells)

On this basis, green electricity accounts for less than 1% of domestic sales in Australia. The reason is that green energy is currently up to five times more expensive than fossil fuel power. This situation arises partly because green energy does not compete on a level playing field with fossil fuels. Currently there is no economic value placed on emissions of greenhouse gases. As fossil fuel energy produces greenhouse gases, and in Australia there is no cost associated with these emissions, the fossil fuel industry does not bear the cost of the greenhouse gases it produces, our grandchildren do.

#### **The moral issues**

The central moral question in the concept of green power is the insurance principle of Moral Hazard. Moral hazard applies where a buyer knows of a harmful outcome of an action, and where policies or price structures would reward behaviour or actions that increase the likelihood of the harmful outcome. For example a moral hazard occurs when a homeowner takes less care in locking up his/her home once it is insured.

In the context of green energy, where Christians believe that:

- the threat of global warming is real and damaging to the environment; and
- the continued use of energy from fossil fuel is a major contributor to that environmental damage; and
- there is a technology alternative available (albeit more expensive);

then, the moral hazard is the availability of inexpensive fossil-fuel-sourced energy which is an incentive to take actions that they believe to be harmful to the environment.

There are practical and moral issues at stake if energy sourcing is the best response to the energy dilemma. Other options include reducing overall demand, changing household behaviour and investing in energy saving technologies. Other practical questions relate to affordability, availability and ease of changing to a green source.

There is a hierarchy of actions available to concerned Christians that allow them to act in a manner that is practically sensible and morally righteous. The first of these is to be mindful of

wasteful and excessive use of energy. Simple, practical remedies arise for most people when planning construction or renovations and the future energy demand is built-into energy efficient design, efficient appliances and matching the quality of the energy source to the quality demanded. Low quality demand (internal space heating) should come from low quality sources (i.e. radiated solar thermal gain), and high quality demand (e.g. a hi-fi) should be from mains power.

Second, there are actions as statements to signify a moral stance to policy makers, society, and our fellow concerned Christians. I consider the purchase of green energy as one of the more important of these action statements.

In considering the moral and ethical issues of Australia taking action to address climate change, our Bishop has recently stated that “in the short term, yes, it might well be costly. The Australian Government has consistently argued that it will not sign the Kyoto [Protocol] because it is not in the nation's interest. For goodness sake. I am sorry, but in this area we do not have the luxury of thinking what might or might not be in the nation's short-term interest. We can only consider what is ethically right for the future of the world and all life upon it.”

Green energy is at the forefront of the public face of action to change energy policy in Australia. It is the most accessible, easily understood and important measure available to signal to government that global warming, climate change, fossil fuel use and support for renewable energy are matters of issue for concerned Christians.

#### **How does this matter to us**

The Diocese is putting its house in order by encouraging its major facilities and institutions to join in a program of energy management contracts. As well, the recently distributed Parish Environmental Audits allowed congregations to consider their individual and corporate behaviour. If you have not seen your Parish response then ask your rector or Council.

#### **A Scriptural Perspective**

Amos 7:10-8:8

#### **Points to Ponder**

1. Is it right for the church to speak out in the Australian political context on environmental issues, for example, Australia's decision to not ratify the Kyoto Protocol?
2. Is accepting a moral hazard (as described above) sinful? Why?
3. Would you apply the values you listed in Week 1 in deciding on your choice of electricity? How would you do it? If not what values would you use? Similarly how should a parish decide on its choice of electricity?

## **4. NUCLEAR POWER – TIME TO CONSIDER?**

As Christians we are called to care for God’s creation. In exercising our free wills within God’s creation, some of our most important decisions are those relating to how we acquire and use the energy that powers our society. In this regard, electricity generation employing fossil fuels and present methods are a significant source of pollution through the emission of various “greenhouse” gases, and alternatives need to be considered.

Because of the great variability in daily load demands, “renewable” energy sources such as solar and wind are restricted in their ability to contribute to major electricity generation. Their energy is available only as nature dictates, which is not necessarily when the power grid needs it. Apart from “off-peak” pumping to replenish hydro-electricity dams or the possible manufacture of hydrogen in the future, no satisfactory means exist for large-scale “storage” of the energy that these “renewable systems” produce.

Despite this, we need not always be dependent on “greenhouse unfriendly”, fossil fuel power stations. At present there are two well developed means of “base-load capable” power generation that produce virtually no greenhouse gases. The first is large-scale hydroelectricity. In thirsty Australia this is difficult. The other is nuclear power.

Unfortunately strong emotions are raised by the issue of nuclear power in those who are either for or against it. As a consequence it can be difficult to obtain accurate information on the subject.

### **So, what are the facts?**

There are 438 nuclear reactors worldwide currently supplying approximately 16% of the world’s electricity, with virtually no attendant greenhouse emissions. France generates 78% of its electricity from nuclear reactors. In the USA this figure is 20%, in Japan 39%, in Korea (South) 39% and in Canada 12%. There are a further 31 units under construction in both developed and developing countries.

### **Safety and public health?**

For many the name “Chernobyl” immediately springs to mind. That accident was the result of design flaws in a unique type of Russian reactor lacking Western safety measures, coupled with serious operator mistakes. Modern Western reactors are inherently safer in design. They are enclosed in containment vessels designed to withstand a serious accident event. New generation reactors incorporate “passive safety” technology as part of their fundamental design so that system failure automatically results in loss of reactivity. In addition, advances in the design of reactor control and safety systems provide safeguards against human incompetence.

Fears of terrorists flying a large aircraft into a nuclear power reactor have been under serious consideration since the World Trade Centre attacks. The most thorough study of this threat has been undertaken by the Electric Power Research Institute, and concludes that modern reactor structures “are robust and would protect the nuclear fuel from impacts of large commercial aircraft.” In other words, the reactor containment would not be penetrated.

### **Nuclear waste?**

The disposal of the products of the nuclear power process is carefully accounted for by the industry. Recent reports of failings in accountability for nuclear material in the Russian Federation relate to material from old military programs.

No scientific or technical problems remain to be solved in isolating unwanted radionuclides from the environment. Problems that exist in so-called “waste disposal” are virtually all political and ideological. The encapsulation of radionuclides in boro-silicate glass or their incorporation in a synthetic mineral by the Australian “Synroc” process, coupled with well-designed long-term storage facilities, provide the level of safety necessary.

### **Uneconomical?**

Not so. The Royal Academy of Engineering has substantiated previous studies that nuclear energy can be economic when external costs are included. In the UK, when the cost of a carbon tax of £30/ton is included in coal and gas figures (to offset the release of greenhouse gases) and the cost of standby plant is incorporated in wind calculations (to take account of variability), the present-day generating cost in p/kWh are:- wind 7.2; fluidised bed coal 5.1; pulverised coal 5.0; combined-cycle gas (CCGT) 3.4; and nuclear 2.3.

### **So where is the nuclear power debate in Australia?**

All the presently considered energy alternatives offer advantages as well as risks. There is no simple solution – otherwise we would use it! How then is the Christian to come to some responsible view on the matter? Clearly we have responsibilities towards our neighbours; be they in our own country or elsewhere. How are we to distribute polluting technologies (and all technologies are polluting in some sense) between countries? We also have responsibilities towards our neighbours of future generations. Which is worse; sequestered nucleides in Synroc, sequestered carbon in underground strata or increased global warming? There is also our responsibility towards the other creatures of God with whom we share this planet. How will the various options affect them? What should we make of the effect of wind vanes on endangered bird species? Surely there is a need for us to consider all the options that are available to us.

### **A Scriptural Perspective**

Matt 5:1-30

### **Points to Ponder**

1. What criteria should we use as Christians in arriving at a balance between the options (and others) in the last paragraph of the column?
2. The alternative to simply striking a balance between different energy sources is to consider the alternative of contracting energy consumption. (see chapter on ‘Contraction & Convergence’). How much energy are we ‘entitled’ to use? What standard of living are we ‘entitled’ to?
3. Do you see any ‘moral hazard(s)’ here (see ‘What about Green Power’)? Where, and if so, how can they be avoided?

## 5. WATER AND CHRISTIAN ETHICS

Engineering skills have been deployed since the 1930's to provide abundant water (usually stored in large dams) for our use. The resulting false sense of security lasted until the end of the 20<sup>th</sup> century when the folly of our belief in the perpetual abundance of good quality water became manifest as water scarcity, declining water quality, degraded soils and depleted aquifers became evident to all. The promises made by promoters of big dams made us forget some simple truths that were evident to earlier societies: that water was a precious resource, water was limited in amount and not evenly or equably distributed in either time or space, and that a society that practised poor stewardship of its water resources was in peril of social, economic and environmental catastrophe. In the 21<sup>st</sup> century, we now have to re-learn these lessons and it is our values and beliefs that must provide the context for change.

As stewards of Christ's earthly creation, what are our responsibilities in the management of water? I believe that these fall into three categories.

*Riparian stewardship.* The riparian zone is the corridor of river banks and the vegetation on either side of rivers, creeks and gullies that provide the critical link in preventing sediments, pollutants and nutrients entering our waterways. To take up our role in riparian stewardship is to become aware, interested, and then knowledgeable about the important relationships that shape the landscape. This 'landscape literacy' is a knowledge that is vital for the survival of any society, but especially for one that wields technical muscle on a scale ours does. Revisiting and relearning this lesson is necessary if our society is to understand the problems that we face and to give context to necessary remedial action.

How many of us can name one local native plant flowering on the banks of our rivers, much less any of the myriad of insects, fungi and microorganisms found there? How many of us can say what role they fulfil or how they live? What do we understand of the services they contribute to our well being, and what are the consequences and options when species are removed by loss of habitat, pollution or climate change?

Our first step then is to be aware of our environment and more literate as to what it is and what it contributes to our well-being.

*Resource stewardship.* Every ancient society allocated its water in relation to the relative security of supply from available sources, and the relative importance of demands for the different grades of water. Most precious (secure) were local sources of water from reliable springs and wells that were available for drinking. Next was previously used water: households used rinse and washing water for gardens etc; farms used irrigation water multiple times via terraced fields and simple collection and return structures. Third, insecure supplies from occasional rains were harvested and stored for later use. Such insecure storages were emptied as soon as convenient to vacate space for the next downpour. Communal long term secure storages were reserved for common use and were usually in aquifers, and natural or excavated underground chambers for long term reserve storage. These were used sparingly in good times and reserved for use in bad times.

The principles employed by the ancients are as relevant in the 21<sup>st</sup> century as they were then, except that we have the advantage of technology to transform water sources from insecure to secure, and from lower to higher quality. However, we have developed policies and structures that depend almost exclusively on long-term reserve storages, and have lost sight of the importance of local secure and opportunistic source availability.

We need to preserve the reticulated mains supply for potable needs so that it is used only after other available sources (from grey-water and rainwater) have been used for 'fit for purpose'

uses. Modern technology provides devices (logic control units) that can treat grey-water to safe standards and cheaply select the source to match the quality of water supplied to the quality of the water demanded for a given use. No behavioural change is necessary on the part of the user to result in a very environmentally friendly outcome, often at lower long-term cost.

It is too easy to simply turn on the tap for town water. We need to take more responsibility for choosing the right water for the right task and let our political masters know that this is the preferred direction of change in policy. We are then in a position to have technology make water available, rather than drawing yet more from the natural environment

*Equity & Justice.* The water sharing systems of many ancient societies had equity as central in the allocation decision. These societies recognised that the basis of most conflict and dispute was over sharing arrangements and developed elaborate systems to ensure that essential needs were met with a fair basis for water sharing.

The question of equity has only just surfaced as a social issue in the Australian water debate. In the current drought we are now seeing many households installing systems for rainwater collection and recycling, often without utility approval because of the rigid application of potable water policy and public health guidelines.

Appropriate policy, standards and delivery mechanisms are central to issues of equity and justice. The use of drinking-quality water for most in-house and external uses exacerbates artificial water shortages in times of drought. That is, water of drinking quality is restricted for all uses, whereas many uses could be met by grades of water other than of drinking water standard. We need to establish a ‘fit for purpose’ portfolio of supply sources of various qualities, and to engage technology so as to optimise our use of these.

This paper started off by making reference to societies that managed water well some thousands of years ago. These systems have since become dysfunctional or have fallen from use. In most cases it was because of climate change.

### **A Scriptural Perspective**

Jeremiah, 2.5-13

#### **Points to Ponder**

1. Is managing water properly simply a practical issue, or does it have moral dimensions?
2. Is landscape literacy the same as Creation awareness? Why?
3. What distinguishing criteria should a Christian bring to water allocation decisions between different users?

## 6. THIRSTY LAND – THIRSTY PEOPLE

When Moses led the Israelites out of Egypt, scripture reports there was a great deal of discontent as a result of the discomforts they faced. Perhaps the most significant hardship they endured was from the shortage of water. On two occasions, some forty years apart, the Israelites complained bitterly to Moses of the hardship they were enduring - "Why did you bring us up out of Egypt to make us and our children and livestock die of thirst?" (Ex 17:3). On each occasion God answered Moses' plea for help and, both times, Moses struck the rock with his staff and "water gushed out and the community and their livestock drank." (Num 20:11)

New South Wales is in the grip of its worst drought in a hundred years. This drought is affecting rural communities much the same as droughts did in Moses' time. Despite the huge changes in technology that we have implemented to transform our environment, the natural elements still control our lives. Water has been perhaps the most valuable natural resource to mankind since creation, so that even today, despite our efforts to improve our lifestyle, communities are still crippled by water shortages that impact on our social well-being. Despite our best efforts, many are hurting in both town and country.

Today the social effects of this natural phenomena are significant. Low rural productivity and extra costs mean that farm incomes are reduced, and, in many circumstances, are negative. This, of course, impacts on the town businesses that service agriculture. Many rural towns and urban areas are also imposing heavy water restrictions on consumers just to pull through this seemingly never-ending drought.

In such times, many families leave rural communities seeking employment elsewhere. This in turn affects the communities left behind by changing ratios in schools, banks, health facilities, etc., and thus further affects their viability.

Human designed systems are economically driven. God's design in creation is environmentally balanced and sustainable. It can therefore be argued that we have interfered with nature's balance in creation to such an extent that we have caused climatic change; or is this drought simply part of a natural cyclic phenomena? After all we do hear about floods causing destruction in other parts of the world.

Drought stricken rural communities could be forgiven for wishing for a flood now. There is an old saying " It is easier to grow crops in mud than in dust". Somewhere, however, our vision and trust in God gets diminished when everything is going well, but there is also a tendency to blame God when the rain does not come. In Ezekiel 14, God again reminds us that his judgment is inescapable. We are each personally accountable to God. Ezekiel talks of Noah, Daniel and Job as three ancient men of renown, selected because of their proverbial righteousness and saved from the wrath of God. When God comes in judgment against a nation or its people, no one can count on another's righteousness to be delivered.

So this drought may be a challenge for people of a nation to work together and to acknowledge God for his power and greatness, rather than to blame him for the problems associated with water shortages. It may also be a timely reminder to reflect on God's environmental balance in creation against the impact of man's greed in an economics driven society.

The story in John 4 tells of Jesus asking a Samaritan woman for a drink and her response,

following their conversation, with a spiritual thirst for the things of God. We can compare Jesus' recognition of the reality of thirst, to our thirst as a consequence of today's drought. Some farmers have to buy water every few weeks, further stretching their budgets. Local Church communities are responding to their need and consequently stretching those limited resources. This response impacts greatly on the lives of all the people involved, as it did in the case of Jesus and the Samaritan woman. This story explains that both thirsts were satisfied - Jesus and his thirst for water after a long walk, and the woman with a spiritual thirst for the Living Water of God.

Hopefully the Church is making similar significant impacts on people's lives as they endure hardships brought on by this drought. With the help of prayer, efforts are being made to assist rural people both physically and spiritually. Rural people are grateful for the compassion and practical assistance given by rural parishes.

As a church community we can continue to offer help in both practical and spiritual ways to alleviate the distress some families are experiencing. God's commandment to "Love your neighbour" is being put to the test, and our calling is to offer help. "Let us not become weary of doing good, for at the proper time we will reap a harvest if we do not give up."(Gal 6:9)

Just as water was a catalyst to deepened relationships between God and Moses, Noah and the Samaritan woman, so the drought we face can deepen the relationships between God, ourselves, and our neighbours today.

### **A Scriptural Perspective**

Exodus 3:1-15

#### **Points to Ponder**

1. What is your image of God? How do you understand God's action in the world?
2. In light of your answers to q1, what do you consider to be the relationship between God and extremes of nature? What part do we humans play?
3. Review your own spiritual journey. What have been the 'catalysts' to a deeper relationship with God and neighbour? Did material need affect your spiritual growth? In what way?

## 7. A CHRISTIAN BASIS FOR ENVIRONMENTAL ACTION

A good place to start is the second of the great commandments “You shall love your neighbour as yourself” (Mat 22: 38). Clearly how we interpret the words ‘neighbour’ and ‘love’ in this commandment will affect our decisions and actions.

To start with ‘love’. A New Testament perspective on this word is one in which God is seen as self-emptying love and, so, love may be defined as the process of ‘enabling the beloved’. Love in this sense is expressed in a special kind of relationship where the lovers evoke and promote each other’s identity. Such love acts to increase wholeness and maturity in the beloved. The beloved is strengthened by the relationship, not subsumed by it.

In the love relationship between the Creator and creation, we would not expect to see coercion of creation, given the evolution of a freely choosing partner in love was the intent of the action. We would expect to see creation provided with the gift of opportunity. It is important for us to realize that before all else we are part of God’s creation. We are loved by our Creator, as are all other creatures, and we (and they) are enabled to explore and evolve together in the context of our creation home. The relationships then that exist between God’s creatures should continue to reflect the pattern of love we see in God’s continuing act of creation. We should love, that is, we should enable, the potential of the others of creation.

This now brings us to the question of who is our neighbour? In the parable of the Good Samaritan (Luke 10:29-37), where Jesus asks ‘who do you think was neighbour to the man who fell into the hands of robbers?’ [The scribe] said, ‘the one who showed him mercy.’ Jesus said to him ‘Go and do likewise’. Thus in Jesus’ view anyone to whom we are able to show compassion is our neighbour and we are bound by the law of love to do so. So, who are our neighbours in the context of environmental issues?

Firstly there are those of future generations. I do not think any one of us would see our grandchildren as other than our neighbours, though in time rather than space. If we use resources in such a way as to reduce their opportunities and options, we have not enabled them or their generation.

Secondly there are those with whom we now share resources, eg those with whom we share water in the Murray Darling system. Those who live in towns and cities or farm the land, are all affected by our behaviour in the use of water. As we could act differently and more compassionately towards them, they are, by our definition, our neighbours.

Thirdly, there are those with whom we share this planet, who, as a consequence of our behaviour live diminished lives. The victims of global warming fit within this category including those who live in drought or flood prone areas, cyclone areas or any coastal areas in Australia or other lands. They will all be affected by the frequency and violence of weather conditions and by sea level rise. As we could have acted differently (in our direct and indirect use of energy), so they are our neighbours.

Fourthly, the plants and animals of God’s creation are our kin and neighbours. We are able to show compassion on the biological world, to allow it to be truly itself, yet in many ways we choose not to. It is not that we should not draw on the natural world of which we are a part for what we need, but we rob it of its health and freedom.

Thus we are called by the primary imperative of God's sovereign command of love, to enable our neighbours, to evoke and promote their identity, to provide the conditions for them to increase in wholeness and maturity. Have we done so? Could we do better? How will we answer before God for our actions when the time comes?

**A Scriptural Perspective**

Ps 96:10-13, Mark 12:28-34

**Points to Ponder**

1. Do you 'enable' creation in your daily life? Should you? In either case how could it be done?
2. Does creation enable you? Why (or why not)?
3. Where does the rest of creation, both human and non-human fit in your search for meaning?

## **8. FORESTRY – ONE PERSON’S PERSPECTIVE**

The fourth Thanksgiving Prayer in our Holy Communion service reminds us that God has given us this Earth “to care for and delight in”. The Communion service also reminds us that we must love our neighbours as ourselves. If we are to show love to our neighbours, we need to ensure that our use of God’s creation, including forests, does not adversely affect our neighbours, including our fellow Australians, people in other lands and generations yet unborn. We also need to show respect for all elements of creation simply because they were created by and belong to God. If we do not show respect for creation, we do not show respect for God.

The management of Australia’s forests has been in the news recently, particularly during the Federal election, which prompts us to ask whether our present forest policies are consistent with our Christian responsibilities. This article looks at some of the issues from the perspective of a forester who is also a Christian.

### **Are Australia’s forests disappearing?**

Over 17% of Crown land forests are in reserves, and many other areas are informally reserved. In fact, less than 15% of Australia’s native forests are managed for timber production. Further, all logged areas are regenerated. Therefore, the total area of forest in Australia is not decreasing; in fact, it has increased in recent years due to the establishment of plantations. However, a young, regrowth forest is not the same as the forest it replaced, and it may be many years before a young forest has the complexity of an old forest.

### **Are Australia’s forestry practices sustainable?**

Forests provide many non-timber benefits such as soil and water protection, aesthetic values and habitat for wildlife. Forests are also places of beauty, wonder and majesty where we can find spiritual refreshment.

Australian forestry is subject to codes of practice which attempt to protect all these values. Protection of endangered species is a particular focus, and there is no evidence that any species have become extinct as a result of forestry in Australia.

Forests are not static entities. Like all other living creatures they are born, grow, become old and die. Many eucalypt species require a major disturbance to regenerate. In nature, this is often provided by bushfires or cyclones. Modern forestry practices attempt to mimic nature by providing a suitable seed-bed for the forests to regenerate after timber harvesting.

### **Social considerations**

As Christians, we must consider the well-being of other people. About 80,000 people are employed in Australia’s forest and forest products industries. Many of these jobs are in rural areas where there is little alternative employment. The closure of the forest industry would cause immense economic and social hardship to the workers affected and to many rural communities.

It is sometimes claimed that tourism could provide an alternative to forestry. But are tourism and timber production mutually exclusive? One of Tasmania’s most popular tourist attractions, the Tahune Forest Airwalk south of Hobart, is in a timber-producing forest. So perhaps we don’t always have to make a choice between tourism and forestry – carefully managed forests can provide both.

### **Are plantations the answer?**

Plantations can provide many of our timber needs. We could increase the area of plantations to reduce the need to produce timber from native forests. However, there is only limited cleared land available for plantation establishment. Further, plantations do not have the

biodiversity of native forests. So, while plantations can provide our timber needs they may not always provide all the other benefits that native forests provide.

### **International concerns**

As trees grow, they take carbon out of the atmosphere. When timber is used for housing, furniture, and even paper, the carbon can be locked up for decades or centuries. The production of most alternatives to timber (e.g. plastic, steel, aluminium and concrete) requires large amounts of energy and therefore adds to carbon in the atmosphere.

If we reduce timber production in Australian forests, we will have to import more of our forest products. If these products are from forests which are not sustainably managed, then the environmental impact may be worse than if we continue to produce timber from Australia's forests.

### **Conclusion**

Timber is renewable, biodegradable, requires little energy in its production and, when produced sustainably, is one of the most environmentally friendly products we have. However, there must be a balance between the use and preservation of natural resources, bearing in mind the needs and the rights of people in other nations, of future generations, of people whose livelihood depends on forests, and of all elements of God's creation. Our decisions on natural resource use must also show respect for the world which God has entrusted to us.

Whether Australia's forest policies have found the right balance between use and preservation is a matter on which Christians should develop informed views. This article raises some of the complex issues we need to consider if we are to make an informed decision.

### **More information**

The Australian Conservation Foundation and the National Association of Forest Industries can provide varying perspectives on the forest debate. Factual information is available from the National Forest Inventory and Australia's State of the Forests Report 2003 published by the Bureau of Rural Sciences ([www.daff.gov.au/nfi](http://www.daff.gov.au/nfi) and [www.daff.gov.au/stateoftheforests](http://www.daff.gov.au/stateoftheforests)).

### **A Scriptural Perspective**

Zechariah 8. 14-17, Mat 15: 1-20

### **Points to Ponder**

1. In many ways natural environments are transformed by human activities, for example, forestry, farming, city building. Should all such activities be considered destructive of Creation? If not, what are the criteria for deciding where the balance should lie? Do you consider the role of the Spirit in discerning your criteria/evaluation of alternative arguments? Why?
2. How would you apply your criteria in deciding your attitude towards wood-chipping? If necessary refine your criteria.
3. How would you apply your criteria in deciding whether to support the continuation of an industry that supported jobs in country communities if: 1. the industry was known to be destructive to the natural environment, or, 2. the activity might be destructive? Consider the criteria you have developed in the light of the values you listed in Week 1.

## 9. ECO SPIRITUALITY

*Everything that is in the heavens, on the earth, and under the earth is penetrated with connectedness, penetrated with relatedness.*

*Hildegard of Bingen*

Hildegard of Bingen speaks of the reality that lies at the heart of ecospirituality. This way of experiencing life is not a new phenomenon as people such as Hildegard and Francis of Assisi exemplify. Yet in our age the spirituality that is inclusive of all reality, that lives in consciousness of interrelationship with the whole cosmos, is a growing and essential human and Christian experience of the world. This experience of relatedness is inclusive of non-human as well as human life. This sense or intuitive understanding of connection with all of God's creation derives from love. Christians have always known of the exhortation to love our neighbour but have not always shown or known this love in relation to the whole earth community. Yet this imperative to love beyond the human is deeply biblical. Col. 3.14 says '*Above all, clothe yourselves with love, which binds everything together in perfect harmony*'. This binding together is of course the meaning of religion. The loving awareness of all life forms as inherently valuable and worthy of great respect in some measure seems to perceive this binding of everything together.

So, whilst ecospirituality is definitely concerned with the moral and ethical responsibility and subsequent call to action to care for all creation, it is the actual experience of loving relationship with creation more than the intellectual assent to it. In other words it is the heart that experiences this spiritual ecology. It is the heart that knows love and compassion for all God's creatures, forests, seas and rivers. It is this love that knows the experience of relationship with those beyond our human family. St Francis expresses this in his Canticle when he speaks to Brother Sun and Sister Moon.

The reality of the interrelationship of all creation is not simply some form of sentimentalism. In our age modern science and mysticism may have more in common than had been previously perceived. It seems that the web of life of contemporary scientific understanding may now give us the rational basis for the actual, lived experience of knowing ourselves to be in intimate relationship with all. The Holy Spirit is indeed the Spirit of wholeness beckoning us towards understanding the integrity of creation.

But we must be listening for the Spirit that moves mysteriously in many and varied ways. We must listen when our hearts are moved by the beauty of the sun setting on a mountain, by the gentle stirring of tall grasses in the breeze, by the silent stillness of an egret intent on prey. And we must listen also when our hearts are moved with compassion for the distress of a land in drought, for dying trees and parched earth, for the suffering of animals cruelly exploited by human hands. This is a listening for the Divine presence throughout the world, a listening for the Mystery behind creation that brings us to wonder.

Spirituality is about the communion of our spirit with the Spirit of God and the experience in life that draws people into relationship with God. Ecospirituality recognizes that the whole of God's creation may draw us into relationship. The poetry of the Song of Solomon and John of the Cross both use the imagery of the natural world to express this love relationship. The voice of the Beloved "comes leaping upon the mountains".

We must open our hearts and minds to that voice and the possibility that God is calling us beyond ourselves to listen to the earth, to live simply in relationship with her, to have deep respect for this gracious body who sustains us.

A Christian ecological spirituality understands that a Trinitarian God reveals to us that the very nature of God, as we understand, reflects the nature of creation as being a living in loving relationship and of diversity in unity. It is a contemplative spirituality in that it is about the experience of the long, loving look at the real and the ultimate communion of all creation with the Creator.

Applied ecospirituality is guided by underlying principles that come out of the lived experience of being in relationship with creation in a non-hierarchical way. David Hallman in his book “Spiritual Values for Earth Community” lists these values as Gratitude, Humility, Sufficiency, Justice, Love, Peace, Faith and Hope. These principles guide a way of living that is mindful and attentive to our human footprint on the earth. For when we know that “everything is penetrated with connectedness” we will live in ways that honour this God given web of life.

### **A Scriptural Perspective**

Col. 1: 15-20

#### **Points to Ponder**

1. For the eastern church Fathers, meaning and purpose in life are found by being truly ourselves and we can only be truly ourselves if the pattern of our relationship with God is as Christ, our initiator and our fulfilment, intends. Does such an image match your experience of meaning in your faith?
2. What is the difference (if any) between a high quality of life and a high standard of living for you as an individual and as a parish? How do you differentiate between them in your personal life and how does your parish do so?
3. Consider the list of values you developed in the first week, have they changed? Have they been reinforced?