INTRODUCTION

What place do human beings have in relation to the rest of creation? Tribal peoples around the world tend to regard humans as being part of a web of life where all things are connected. Yet, the theologian Thomas Berry suggests that in mainstream Western culture "the full reality of the Earth and Universe has escaped the narrow spectrum of sensitivity of our industrial eyes and ears". He urges human society to "move beyond democracy to biocracy and to the participation of the larger life community in our human decision-making processes".

This call should not be strange to Christians. According to the Bible, we are part of the inter-connected community of creation, inter-related with all other creatures. As people created in God's image (Gen 1:27) we are called to work with creation, and to do so in such a way as to manifest the love and respect that God has for each creature. We are told "to cultivate and take care" of what God has gifted (Gen 2:15). God's covenant with Noah embraces all of God's diverse creatures (Gen 9:12-16). They reflect the beauty and diversity of God.

Experience

Those who worked out their carbon footprint, report back to the group. The average footprint for a British person is 9.5 tonnes per year, but Operation Noah urges working towards an output of one tonne. This would be in line with Operation Noah's call for a 90 percent cut in emissions by 2030.

• What changes would need to be made by group members to bring their figure down?

Feedback on other action and research since the last meeting.

Identify people and communities you know - 'green street' residents, for example - who are trying to live more simply and reduce carbon emissions.

Analysis

Look at Appendix 10: War on the environment

- How far would you say humanity has been waging war on the environment over the past century?
- Why do you think this is?
- How far should planetary limits set by sustainability and justice be respected?
- Would you describe the way human society has treated the environment as 'sinful'?

Feedback on Reading Sheet 8.

In 2007, the Vatican declared itself to be the world's first carbon-neutral state. It claims to offset its carbon emissions by planting trees in a forest in Hungary, known as the Vatican Climate Forest. The Catholic Diocese of Brentwood is amongst the first in Britain to undertake a similar scheme. Whilst these schemes force polluters to pay in some form for the emissions they create, critics suggest they divert from the necessary reduction in energy use. Discuss.

Look at Appendix 11: Human footprint

- What do these cartoons say to us about human dignity?
- How far do you feel that the rights of future generations are your responsibility?

Look at Appendix 12: Human relationship with the environment

• Identify one point that strikes you most forcibly?

Theological Reflection

Look at Reflection and Action Sheet 4. Spend 30 minutes reading and reflecting, using the questions given as a guide.

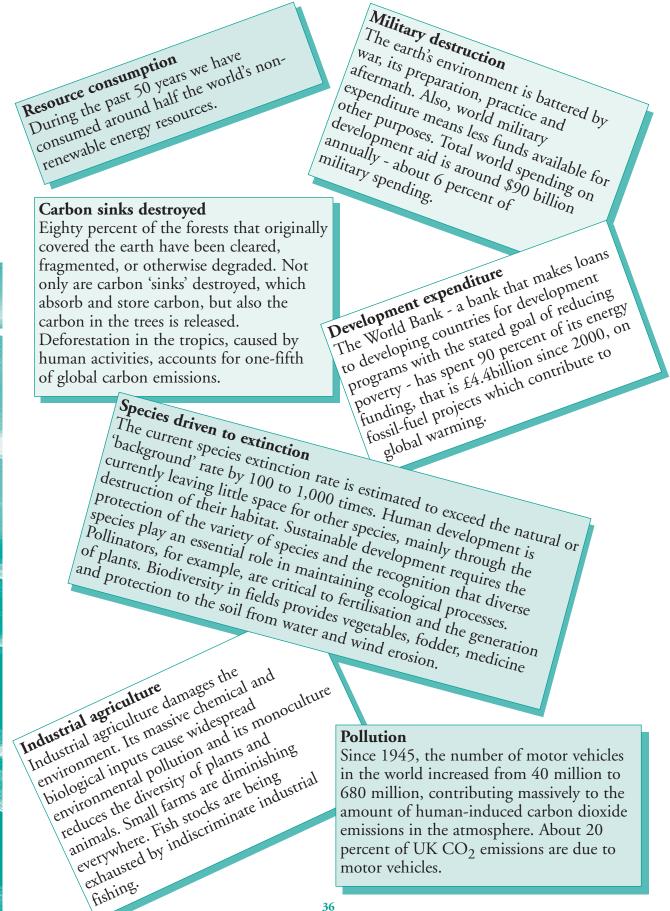
Action

Three members of the group undertake to read and list the main points in reading Sheets 11, 12 and 13 in preparation for the next meeting.

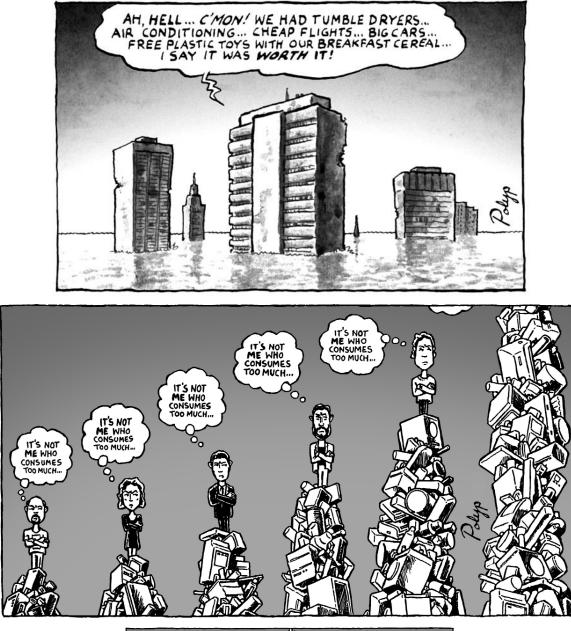
Look at the ideas and resources listed on Reflection and Action Sheet 4.

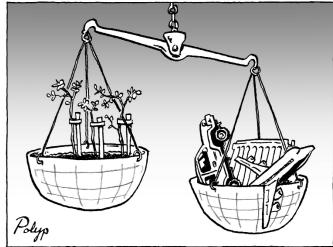
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Appendix 10: War on the environment



Appendix 11: Human footprint





Appendix 12: Human relationship with the environment

We ourselves are part of creation, formed out of the earth, and dependent on the rest of creation for our continued existence: so we are made aware that caring for creation is part of caring for ourselves (*Genesis* 2:15). There is a covenant of mutual care and respect that unites God, humankind and every other living creature (*Genesis 9*).

The Call of Creation, Catholic Bishops' Conference of England and Wales, 2002.

The external deserts in the world are growing, because the internal deserts have become so vast. Therefore the earth's treasures no longer serve to build God's garden for all to live in, but they have been made to serve the powers of exploitation and destruction.

> Pope Benedict XVI, homily at his inaugural Mass, 2005

What does the commandment "Thou shall not kill" mean when 20 percent of the world's population consumes resources at a rate that robs poorer nations and future generations of what they need to survive? What does it mean to respect life when 30,000 people die each day from poverty? What does it mean to be stewards of the earth when up to half of all living species are expected to become extinct in the next 200 years? ... Individual Catholics, parishes, Catholic schools, religious communities and church organisations can play a big part by making different choices, such as using less energy or buying locally made goods which require less transportation.

From 'Our World Is Facing an Ecological Crisis' - a Statement on Environmental Issues by the Catholic Bishops' Conference of New Zealand, September 2006. Each creature possesses its own particular goodness and perfection. Man must therefore respect the particular goodness of every creature, to avoid disordered use of things which would be in contempt of the creator and would bring disastrous consequences for human beings and their environment.

> Catechism of the Catholic Church, para 339

We look after the land as we look after a mother. And the land looks after us like a mother. From the land comes our law and our life, our stories and our strength. Our own land is also within us and binds us to the place where we live. Even when we are displaced or taken away and seem to have lost our roots, the land stays within us. The task is to find ourselves by finding the land within and making the connection with our country. We are 'heirs' to the land spiritually, just as Christians say they are heirs of Christ.

Wali Fejo, of the Aboriginal people of Darwin, Australia

Land is our life and blood. Without forest we cannot survive.

Penan, Malaysia

We only have the land for a short time and then we must leave it intact.

Maasai, Kenya

Treat the earth well. It was not given to you by your parents, it was loaned to you by your children.

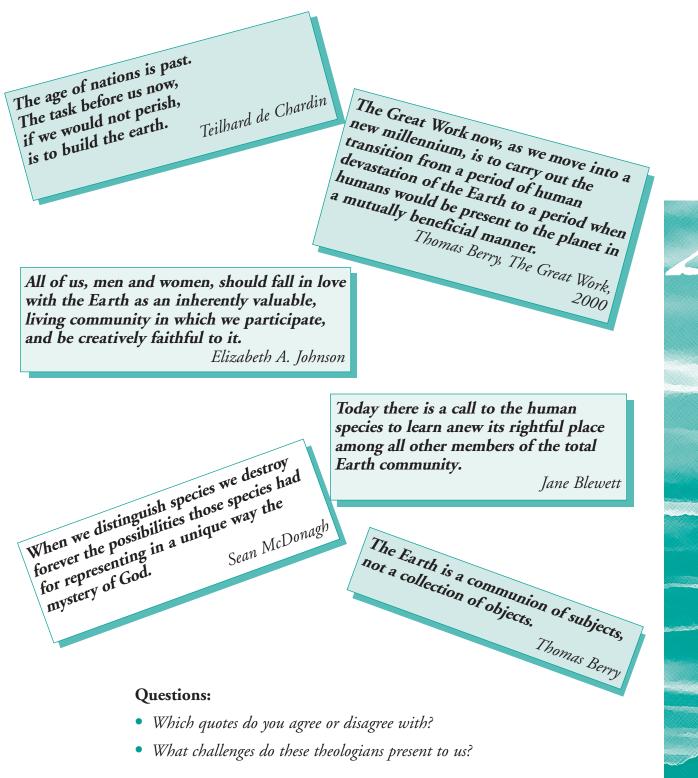
We do not inherit the Earth from our Ancestors,

we borrow it from our Children. Ancient Indian Proverb

Reflection and Action Sheet 4

Reflection

Look through the following quotes from eco-theologians:



Feedback on Reading Sheets 9 and 10.

Action

Find out about ecumenical and interfaith networks in your area. Are any of them raising awareness about climate change? Perhaps you could collaborate with them.

Look at the 10 minute Creation Challenge film clip on www.creationchallenge.org.uk. Perhaps bring a lap top to the next meeting and show it to the whole group.

Theology Resources:

Earth Spirituality: Jesus at the Centre by Edward P. Echlin. John Hunt, ISBN 1856084450 (2002)

The Cosmic Circle: Jesus and Ecology by Edward P. Echlin. Columba Press, ISBN 9781856074513 (2004)

To Care for the Earth: A Call to a New Theology by Sean McDonagh. Geoffrey Chapman, ISBN 0-225-66485-2 (1986)

From Stockholm to Johannesberg: An Historical Overview of the Concern of the Holy See for the Environment 1972-2002 by Marjorie Keenan. Vatican Press, ISBN 88-209-7352-9 (2002)

At Home in the Cosmos by David Toolan. Orbis Books, ISBN: 9781570754784 (2001)

The Cosmic Covenant by Robert Murray. Gorgias Press, ISBN 978-1-59333-747-6 (2007)

Website: www.Thomasberry.org

Research:

Low-Impact Living Initiative at www.lowimpact.org

The Millennium Development Goals. See http://www.dfid.gov.uk/mdg/ and http://www.cafod.org.uk/secondary/allresource-packs-/millennium-developmentgoals/millennium-development-goals-factsheetpdf

Lifestyle Tips:

Use less gas or heating oil

- insulate loft and walls and hot water cistern,
- turn central heating thermostat down 1 or 2 degrees,
- turn hot water thermostat down to 45-50 degrees and have it on a timer,
- wear a jumper in the winter.

Don't use 'stand-by'

Resist leaving equipment on 'stand-by'. British people pay £163 million every year for electricity used in keeping their appliances on stand-by. That goes for computer screens too.

Use your L O A F

Buy and grow food that follows Christian Ecology Link's **L O A F** principles for food: Locally produced, Organically grown, Animal

friendly and Fairly traded. Also, try and eat seasonal produce. You could arrange a communal **L O A F** meal at your church.

Reading Sheet 11: Climate 'road map'

The UN climate change conference in Bali during December 2007 came close to complete failure. That would have spelled the death of the Kyoto process, the only known route to global agreement on shared responsibility for carbon cutting. But, eventually, participants put the specifics of emissions ceilings on the back burner, settling for a 'roadmap' rather than a framework agreement. This, crucially, keeps the U.S. on board, and sets a timetable for negotiating a new deal over the next two years. The hope is that the signatories to that new deal, in Copenhagen in December 2009, will include a new U.S. president. There should then be time to get it ratified and in force by 2012, when the current Kyoto agreement expires.

Spurred on by the latest report of the Intergovernmental Panel on Climate Change (IPCC), the European Union pushed the Bali conference to sign off on a tight framework. It wanted agreement on mandatory 25-40 percent CO_2 cuts by developed countries by 2020. This was the minimum target, it said, consistent with keeping global average temperature increases within a 2.4°C ceiling. Globally, emissions must start falling within 15-20 years and be halved by 2050.

But developing countries, led by China and India, weren't ready to assume part of the burden of global cuts. The U.S., for its part, insisted they should, but wouldn't be drawn into specific pledges on cutting its own carbon. Canada, Japan and Russia held back on numerical targets too. Compromises were drafted. Feelings ran high. The meeting went into an extra day. Brazil and South Africa gave ground on accepting emissions cuts. The U.S. delegation rejected a last-ditch consensus formula – then came back and accepted a "roadmap" for negotiators to follow.

Summing up Bali

"We now have a roadmap, we have an agenda and we have a deadline. But we also have a huge task ahead of us and time to reach agreement is extremely short, so we need to move quickly."

Yvo de Boer, executive secretary of the UN Framework Convention on Climate Change

"An historic breakthrough and a huge step forward... all the world's nations have agreed to negotiate on a deal to tackle dangerous climate change, concluding in 2009."

Hilary Benn, UK Environment Secretary.

"The really critical test is whether it provides an opening that a future U.S. administration can come in under, and for us it meets that test."

Eliot Diringer, director of international strategies at the Pew Center on Global Climate Change in Washington DC.

"We seek your leadership, but if you cannot lead, leave it to the rest of us; get out of the way."

The challenge to the U.S. from Kevin Conrad, leader of the Papua New Guinea delegation, which helped tip the conference back from the brink of failure.

"This conference has failed to give us a clear destination."

Tony Juniper, director of Friends of the Earth UK

> By Roger East, Editor of **Green Futures** Magazine. Originally published in **Green Futures** January 2008. www.greenfutures.org.uk.

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Reading Sheet 12: Vatican's address to the UN on climate change

Extracts from the address of Archbishop Celestino Migliore, the Holy See's permanent observer to the United Nations, to the UN General Assembly on 13th February 2008.

The ongoing debate on climate change has helped put into focus the inescapable responsibility of one and all to care for the environment, thereby building consensus around the common objective of promoting a healthy environment for present and future generations. The recent UN Climate Change Conference in Bali has shown that through increased concern for our neighbour, in particular for those most vulnerable to climatic change, we are better equipped to adopt strategies and policies which balance the needs of humanity with the urgency for a more responsible stewardship.

The Holy See assures of its collaboration towards achieving the objectives set in Bali. To this end, the personal commitment and numerous public appeals of Pope Benedict XVI have generated awareness campaigns for a renewed sense of respect for and the need to safeguard God's creation. Individuals and communities have started to change their lifestyles, aware that personal and collective behaviour impacts climate and the overall health of the environment. While such lifestyle changes at times may seem irrelevant, every small initiative to reduce or offset one's carbon footprint, be it the avoidance of the unnecessary use of transport or the daily effort to reduce energy consumption, contributes to mitigating environmental decay and concretely shows commitment to environmental care.

On a more practical side, the Holy See has already taken certain measures to reduce and offset the carbon emissions of the Vatican City State, such as the use of solar panels and tree-planting. With its involvement in a reforestation project in Hungary, it will provide environmental benefits to the host country, assist in the recovery of an environmentally degraded tract of land, and provide local jobs. The interrelated issues of environmental preservation, economic development and climate change can have competing demands on our priorities and concerns. It is incumbent upon every individual and nation to seriously assume one's share of the responsibility to find and implement the most balanced approach possible to this challenge. Sustainable development provides the key to a strategy that harmoniously takes into account the demands of environmental preservation, climate change, economic development and basic human needs.

The use of clean technologies is an important component of sustainable development. To help industrialising countries avoid the errors that others committed in the past, highly industrialised countries should share with the former their more advanced and cleaner technologies. The pooling of resources makes initiatives of mitigation and adaptation economically accessible to most, thus assisting those less equipped to pursue development while safeguarding the environment. Moreover, markets must be encouraged to patronise "green economics" and not to sustain demand for goods whose very production causes environmental degradation. Consumers must be aware that their consumption patterns have direct impact on the health of the environment. Thus through interdependence, solidarity and accountability, individuals and nations together will be more able to balance the needs of sustainable development with those of good stewardship at every level.

Indeed, the challenge of climate change is at once individual, local, national and global. Accordingly, it urges a multilevel coordinated response, with mitigation and adaptation programmes simultaneously individual, local, national and global in their vision and scope.

Reading Sheet 13: The Climate Narratives of Noah and Joseph, by Professor Michael Northcott

In Christian tradition, as in other ancient cultures, the key device for teaching cosmology was storytelling. There are two foundational Biblical stories where individuals act prudentially to stave off climatic disasters, these being the stories of Noah and Joseph.

In the Flood narrative, Noah learns in a vision that God intends to make it rain for months and to flood the Earth because "the wickedness of humankind on earth was great" (Genesis 6:5). In preparation for the coming inundation, Noah begins his great ark project according to divine instruction, and his neighbours subject him to ridicule. They are content in their lives. They do not suspect that disaster will befall them, and they think Noah and his family are off their heads. When the flood comes the only ones who survive are those, animal and human, whom Noah has seen safely aboard his ark. The Biblical story of the flood echoes similar accounts of primordial inundation in the ancient near east, such as the Gilgamesh Epic, which likely have their roots in an actual geological event. Around 5,600 B.C. the rising waters of the Mediterranean precipitated the inundation of the deep basin that contained the freshwater Lake Euxine and resulted in the formation of the Black Sea. This ancient saga is not only a powerful story of human survival in the face of a climatic catastrophe but also a moral tale in which the flood is seen as divine punishment for a generation of humans who had become so depraved that "every planning and striving of its heart was always only wicked" (Genesis 6:5). And as the narrator suggests the wickedness which had affected all humans was such that it affected the life of all flesh on Earth, and endangered even the Earth which was as a result "full of violence" (Genesis 6:13).

The narrator picks up a theme from the opening chapters of Genesis in which the sin of Adam and Eve is said to have effects not only on their children and childrens' children but on the Earth itself. The covenant which God made with Noah and his descendants

after the Flood promised that the Earth would never again be threatened by the bursting forth of the chaotic waters, and it was a covenant which included not only humans but "living things of every kind". It was, as the English Jesuit Robert Murray suggests, a "cosmic covenant" in which the idea of confrontation between the chaotic and elemental powers of ocean and climate and the ordering and sustaining power of God played a central role. For the Psalmist, the regularity of the rains which water the crops are evidence of the sustaining action of the creator but they are also seen as a sign of good government; the good king overseas a land in which the rains come regularly. And the Hebrew Prophets argued that the burdens which greedy kings and merchants placed on land and people caused the droughts and spreading deserts which afflicted Mesopotamia from the eighth century BC. Pollution is seen as a consequence of the failure to follow divine law: as Isaiah has it, "the Earth lies polluted under its inhabitants; for they have transgressed the laws, violated the statutes, broken the everlasting covenant" (Isaiah 24:5).

After Noah, and before Isaiah, the Old Testament speaks of another patriarch who not only correctly foretold an impending climate disaster, but helped an alien nation, and through them his own family and ultimately the chosen people of God, to survive it. This man was Joseph, and the story of Joseph offers a more hopeful scenario for our current climate change predicament than that of Noah: Joseph's warnings of imminent climate change were heeded by the Egyptians and prudent preparations were made which saved them, and subsequently Joseph's own family, from calamity.

Although the drought was not caused by Egyptian agricultural or imperial practices it nonetheless would have shown up any weaknesses in those practices. Above all, the claim of their rulers to be gods was shaken by the devastating famines and the famine taught

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them to act less like gods and more like shepherds of the people. The lesson they learned was precisely the strategy recorded in the Joseph saga - investment in agriculture and centralised storage was a more effective means for managing the vagaries of the climate of the Nile region than the imperial claim that the rulers were gods and could control the forces of nature. The story of Joseph not only shows how climate plays a role in shaping the destinies of civilisations: it is also a powerful story of divine providence.....

.... In a very important sense the science of global warming finds a powerful analogy in this story. Prudential regulation and forward planning of the kind required if humanity is to mitigate climate change has a bad name among contemporary economists. An aversion to planning powerfully infects economists' accounts of the excessive costs which are said to be involved in reducing fossil fuel dependence. Rational choice theory, which as we have seen is the economic equivalent of Cartesian rationalism and Newtonian atomism, suggests that the invisible hand of the market is the best promoter of wealth and welfare in societies that are free from excessive regulation or planning and where individuals are free to pursues their own interests without regard for the interests of others. There is presently little evidence that climate change has unseated the cultural power of this description of rational human behaviour among economists and the banks, corporations and governments which they advise.

Trust in divine fidelity to created life is at the heart of the Jewish and Christian moral traditions. Both traditions recognise created order alongside the redeemed community as a place where divine fidelity to the goodness of created life is experienced and made manifest. But the God-given capacity to discern a future of climate change and the threats it entails requires concerted moral action, just as it did for Joseph, and not simply blind trust that whatever the planet throws at us because of our profligate waste of the fossil fuel reserve, God will somehow defend us in the end. In one sense, as Christians we already know our end for we learn from the resurrection of Jesus Christ that our bodies will be raised with his body on the last day. But the resurrection of Jesus Christ not only directs Christians to an account of our end but to care and concern in this life for the conditions which sustain mortal flourishing.

The Joseph saga suggests that prophetic insight into the threats to life that human activities or planetary cataclysms may represent, and the wisdom to deal with such threats, are among the gifts that God gives to the people of God, and through them to all creatures, to help preserve creation from destruction. In this sense Sir John Houghton, as the first chair of the Intergovernmental Panel on Climate Change, is a prophet of God; and climate scientists of all faiths and none, inasmuch as they have taken up the project he inaugurated, are doing the work of God, just as those whom Joseph led in the court of a foreign king to organise and plan for the coming drought were the agents of salvation for the people of Egypt and for the ancestors of Israel twelve thousand years ago.

If the signs of disturbances in the climate truly signify a potential cataclysm from fossil fuel burning, then the Genesis stories of Noah and Joseph, in which God acts in history to save humanity and other species from destruction, educate those who read them that there is a divine will to preserve the creation from cataclysm. But these stories also teach us that prophets of climate change must be heeded, with a change of heart leading to prudent and responsible action to mitigate disaster. Without a change of heart, *metanoia*, and a new sense of humility before the forces of this wondrous planet, we will not be able to achieve the transformation that is needed if planetary melt down is to be averted.

> From: **A Moral Climate: the ethics of global warming** by Michael Northcott. Published by Darton, Longman and Todd (www.dltbooks.com).