



Generating the Renewable Energy of Hope - An Earth Charter Guide to Religion and Climate Change



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The cover pictures show the "solar cross" of the Evangelical "Friedenskirche" ("Peace Church") in Herten-Disteln, Germany, as well as the inauguration ceremony of the photovoltaic system of the Buddhist Deer Park Monastery in California, USA, led by Ven. Thich Nhath Hanh.

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Setting the context:

Climate change is one of the most urgent global challenges for the 21st century. Addressing the root causes of the problem will require an unparalleled level of international cooperation, to which national governments, businesses, civil society and religions have contributions to make. As UN Secretary Ban Ki-moon points out, we cannot succeed in the struggle against global warming without the help, the support and the guidance of our religious and spiritual traditions. Our religious and spiritual traditions have guided human conduct for thousands of years, and they can inspire the change in the minds and hearts of people required in the transition to a sustainable path of living and development. They can also bring something into the discussion that is desperately needed in the current situation: the renewable energy of hope, of joy and celebration that helps us to see light and creative energy in situations of darkness and despair.

Why do we need this Guide?

The social and environmental impacts of climate change are complex, massive and inextricably interrelated. Bearing this interrelatedness in mind, this Guide uses the holistic ethical framework of the Earth Charter and the Earth Charter related materials, tools and resources as a starting point to reflect on the role of religious leaders and their congregations towards these massive challenges, which require nothing less than a deep transformation of how we live, produce, consume and relate to each other, the community of life, and the larger natural world.

The Earth Charter Guide to Religion and Climate Change honours and builds on the numerous activities that religious and spiritual organizations, congregations and individuals around the world are conducting to halt and reverse global warming. The task of the day is to mainstream these activities and initiatives and put them on a broader base and platform.

In order to support the process of mainstreaming religious action against climate change, this Guide seeks

- To summarize the most recent scientific knowledge about climate change
- To give an overview of available resources, materials, initiatives and websites for interested religious communities, leaders and laypeople
- To present a three-step-methodology for integrated ethical reflection based on the Earth Charter aimed at gaining a macro-perspective on our climate crisis, assessing the root causes of climate change and framing inclusive responses
- To provide a short, concise and practical guide for religious leaders, laypeople and their communities on how to take action on climate change

Who should read this Guide?

The Guide is specifically meant for religious leaders, lay people and their constituencies who seek guidance on the key findings on climate change, the main organizations and networks involved and practical suggestions of how to get started. All spiritual and religions communities and faith-based organizations are invited to use this Guide for starting their own workshops, courses and action projects on climate change and the global challenges of our time.

At the same time, this Guide can also be instructive for institutions and professionals working on the scientific, technical, and policy dimension of climate change – providing them with an overview on a major stakeholder to involve in the global struggle against climate change.

UN Secretary General Ban Ki-moon's call to people of faith to support the struggle against global warming

Taken from his speech at the "Many Heavens, One Earth" Conference in Windsor Castle, organized by the Alliance of Religions for Conservation and UNDP that celebrated the launch of long-term commitments of nine major religions to protect the environment, November 3, 2009¹



"Excellencies, Distinguished delegates,

You bring with you today the strengths of diverse cultures and beliefs. You speak to the heart of humanity's deepest needs, our concerns and hopes for the world. You remind us of what unites us as a human family. Together, we must unite to face a momentous global challenge -- minimizing dangerous climate change and making peace with the planet.

We are all part of the larger web of life. Together, let us work to protect and respect our planet -- our only home. Many of you have experienced first-hand the climate crisis we face. You know that climate change affects us all, but not equally. Look, for example, at the typhoons that have recently been battering Southeast Asia. They have cost many lives. Tens of thousands of people have lost homes and the means of making a living. These events remind us again that those most likely to suffer first and worst from the impacts of climate change are the poor. The poor are also least responsible for the emissions currently in our atmosphere.

Protecting the poor and respecting our planet and the resources it provides is an ethical and scientific imperative. It is consistent with the teachings of many religions. Increasingly, it is also a matter of survival. Next month, the world's governments will gather in Copenhagen to find a way forward on climate change. We must reduce greenhouse gas emissions. We must assist the poorest, the most vulnerable, to adapt to climate impacts already locked into the atmosphere. It is a pivotal moment for our world. Copenhagen provides a unique opportunity.

We can lay a foundation for peace and security for generations to come. We can define a more sustainable relationship with our planet. It is an inter-generational issue. And it is a moral issue. This is why the voices, the deeds and the teachings of the world's faith groups are so vitally important. In the coming weeks, I urge you to make your voices heard loud and clear.

Political leaders must understand that the public expects action -- now. Faith communities can help communicate this message. We need to reduce our impact on this planet. We need to live in a more sustainable manner. Human-caused climate change is but one example of what occurs when we fail to do so.

I ask each of your faiths and religions to pray for a fair, balanced and effective way forward. Your practical commitments can encourage political leaders to act more courageously in protecting people and the planet. Together let us walk a more sustainable path -- one that respects our planet and provides for a safer, healthier more equitable future for all.

Thank you"

The facts about climate change

Before any ethical assessment and consideration of possible actions can be carried out, it is necessary to gain a clear picture of the magnitude and complexity of the challenge ahead of us. Therefore, this section provides a quick summary of some of the key scientific facts on the environmental, social, economic and political dimensions of climate change. In workshops, study groups and action planning sessions, these facts could be used as starting points for discussion.

The science is very clear: Climate Change is causing serious harm to people and nature. At its core, climate change needs to be understood as an ethical, and indeed a moral issue: If we do not respond quickly and decisively, the negative effects of human-induced climate change will increase, affecting most severely the most vulnerable communities and ecosystems. We must, therefore, consider the consequences of our collective inaction on this major global challenge and take action to avoid causing further harm.

The Basics: Climate change is real, significant and human-induced²

- In large parts, the climatic changes we have been witnessing during the past decades are being caused by human activity: There is a broad and overwhelming consensus among the world's scientific community that human activities intensify the natural greenhouse effect by emitting heat-trapping gases such as carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O)³.
- Between 1970 and 2004, global greenhouse gas emissions have increased by 70% due to human activity⁴.
- Current atmospheric concentrations of CO₂ and CH₄ exceeded by far the natural range over the last 650,000 years⁵.
- Climate change is already taking place: From 1906 to 2005, global average temperatures have increased by 0.74 °C (1,23 F). The rate of global warming has increased significantly from the 1970s to the present⁶. *The ten warmest years on record all occur within the 12-year period of 1997 to 2008*⁷.
- This is leading to a rise of the global sea levels and a highly increased frequency of extreme weather events such as heat waves, droughts, floods and hurricanes⁸.
- For hundreds of thousands of people living in vulnerable communities, climate change is a deadly reality: The Global Humanitarian Forum, founded by former United Nations Secretary General Kofi Annan, estimates that climate change claims over 300,000 victims a year, seriously affects 325 million people and creates economic losses of US\$125 billion⁹.
- By 2100, global temperature could increase by 1.1 °C to 6.4 °C, depending on the international community's ability and willingness to effectively mitigate greenhouse gas emissions¹⁰. As a comparison, the last ice age was about 5 °C cooler than our current climate¹¹. Never before in human history have we experienced a climactic change of this magnitude.
- Assessing the collected data since the International Panel on Climate Change (IPCC) issued their Fourth Assessment Report in February 2007 that included the above trajectory; scientists come to the conclusion that the worst-case IPCC scenarios are being realized¹².
- Cattle produces methane (CH₄) that is equivalent to a climate damage close to 20 % of all causes, a fact that received far too little attention in the current debate¹³.

Environmental Challenges: We are edging towards 'tipping points'

- Scientists warn that Earth's climatic system will react with non-predictable, abrupt and non-linear events and catastrophic consequences for humans and the environment. These non-linear changes are fuelled by self-enforcing "positive" feed-back loops that accelerate the destabilization process. One critical feedback is set in motion by melting polar ice: As the ice melts, more of the incoming sunlight is absorbed by the water that heats up and accelerates the melting process¹⁴.
- Research suggests that these feedback circles have already started: During the summer 2007, the withdrawal of Arctic ice reached an all time low of 4.13 million sq km, falling below the previous record of 2005 by an area roughly the size of Texas and California combined, or nearly five UKs¹⁵. During the 2008 melt season, Arctic sea ice extent dropped to the second lowest levels since satellite measurements began in 1979. As the ice had begun its seasonal decline at the beginning of March 2009, ice older than two years accounted for less than 10 percent of the ice cover. The other 90 percent consist of first-year ice, which formed this winter, and second year ice, which formed during the winter of 2007 to 2008. Especially first-year ice is thinner and more prone to melting as the temperature rises in the summer¹⁶. On the basis of these findings, scientists drastically reconsidered their previous estimates of an ice-free Arctic projected for the later half of the 21st century and are now forecasting a total disappearance of Arctic sea ice at a much earlier point in time¹⁷.
- A study on the methane (CH₄) bubbling from Siberian thaw lakes has shown that methane emissions in the study region have increased by 58 % between 1974 and 2000, emitting a greenhouse gas 20 times more potent than carbon dioxide¹⁸.
- Climate change leads to an accelerated meltdown of glaciers and inland ice: According to the United Nations Environment Programme, Himalayan glaciers – the world's largest store of water outside the polar caps serving as freshwater reserve for almost 40 % of the world population – are retreating at rates between 10 to 60 meters per year¹⁹. As glaciers retreat, lakes form, which accumulate increasing amounts of water, putting the downstream communities at risk of glacial lake outburst floods. If the trends continue, millions of people may face flooding followed by dire water shortages once the snow and ice has melted.
- Global warming has devastating impacts on the world's ecosystems and biodiversity: Around one-half of the world's coral reefs have suffered 'bleaching' as a result of warming seas²⁰. Between 12 % and 52 % of species within higher taxa are threatened with extinction. According to the Millennium Ecosystem Assessment, the current rate of extinction of species is up to 1,000 times higher than the fossil record indicates²¹. Even though climate change has not yet been a big factor in the loss of biodiversity, scientists worry that this may change dramatically in the coming years as climate change accelerates.

Social Challenges: The world's poor are bearing the brunt of global warming

Climate change has disproportionate effects on the world's poor. Their vulnerability to climate change is higher and their capacity for adaptation is lower, because they lack the means for protecting themselves from the harm caused by rising seas, increased natural hazards and changes in rainfall patterns. The inverse relationship between responsibility for the causes of climate change and vulnerability to its impacts is one of the most significant ethical challenges posed by global warming²².

According to an estimate by the United Nations Food and Agriculture Organization released in June 2009, the number of hungry people in the world has reached a staggering 1,02 billion. "For the first time in history, more than one billion people are undernourished worldwide. This is about 100 million more than last year and around one sixth of all humanity"²³. FAO Director-General Jacques Diouf explains this increase in hunger as a consequence of "a dangerous mix of the global economic slowdown combined with stubbornly high food prices in many countries"²⁴.

Within the next 20 years, climate change is projected to reduce global food production by approximately 50 million tons²⁵. This could lead to a further increase in global food prices by 20 percent²⁶.

If every person in developing countries would have the same carbon-intensive lifestyle as most people in Western societies, we would need nine planets to absorb the emitted gases²⁷.

The adverse effects of global warming on the world's poor are most severely felt in the following areas:

- Agricultural production and food security: Changes in temperature, rainfall patterns and water availability have long-term impacts on the viability and productivity of agricultural systems. The estimates that an expected increase in average world temperatures of 1 to 3°C would lead to a drop in cereal production in more than 65 countries now accounting for half the world's population²⁸.
- During the past few years, the world's demand for alternative energy resources has driven to the booming market of bio fuels, which almost doubled the prices for corn, soybeans, palm oil and other grains in 2006²⁹. This trend is aggravating the adverse effects of global warming on agricultural outputs and is leading to a competition between the world's food and energy markets – a competition in which the world's poor are on the weaker side.
- Rising sea levels and exposure to climate disasters: According to UNDP, some 262 million people were affected by climate disasters from 2000 to 2004, over 98 percent of them in the developing world³⁰. The risk of being affected by a natural disaster in a developing country is almost 80 times higher than in the developed world³¹.
- Human health: Global warming is expanding the reach of mosquitoes and other carriers of vector-borne diseases such as malaria and dengue fever. These human induced changes are most severely felt in developing countries³².

Economic and Political Challenges: Addressing global warming will require unprecedented international cooperation based on common goals and a shared vision

- Climate change is already taking place, and cannot be avoided. The big questions are 1. What is a safe level that prevents dangerous climate change?, and 2. At what level can it be stabilized given the known realities? While pre-industrial greenhouse gas concentrations in the atmosphere were 280 parts per million (ppm) CO₂ equivalents, we currently are at a level of around 385 ppm³³.
- The largest conservation organizations such as the World Conservation Union IUCN, the World Resources Institute and the World Wide Fund for Nature - agree that greenhouse gas emissions need to be stabilized somewhere between 350 and 450 ppm CO₂ so that global warming can be kept below the threshold of 2 °C above pre-industrial levels³⁴. An increasing number of scientists warn, however, that we need to reverse the present CO₂ content in the atmosphere to below 350 ppm to avoid disastrous impacts on life on Earth³⁵.
- For avoiding dangerous climate change above 2 °C, OECD nations need to cut emissions by at least 80%, with cuts of 30% by 2020³⁶. However, even far reaching cuts in emissions from developed countries will be of no avail if developing and emerging countries will not take their share of reducing emissions.
- We are lagging far behind of reaching this goal: Between 1980 and 2000, global carbon emissions increased by 22 %. Since 2000, the annual growth rate has tripled over the average for 1990 – 1999. Since 2000, annual emissions from fossil fuels alone have risen by 17 %³⁷. The International Energy Agency projects that if societies continue on a business-as-usual path between 2004 and 2030, global carbon output will again rise by 55 % globally³⁸.
- Massive investments in low-carbon research and deployment are needed in the next ten to twenty years, because every minute we do not act will increase the ecological debt that we left to our children, and could create costs and economic shocks similar to those associated with the great wars and the economic depression of the first half of the 20th century³⁹.
- It is imperative that the international community adopts a new legally binding agreement that commits nations to targets and timetables for emission reductions that will stabilize atmospheric GHG at a safe level. Currently, the governments of the world are preparing a new climate treaty to be negotiated at the Copenhagen Climate Summit that will be held in December 2009. This new treaty is expected to replace the Kyoto Protocol, which is due to expire in 2012. While the governments are aiming for a compromise around 450 – 550 ppm, many scientists and NGOs warn that this would not be sufficient to keep climate change within safe limits.
- Another key question is how the permissible emissions will be distributed among the nations. One approach receiving increasing support is called “Contraction and Convergence” that proposes that emissions be allocated on a per capita basis.⁴⁰

- Even with drastic mitigation measures, global temperature is still going to rise because of the time-lags within the global climate system⁴¹. In the first half of the 21st century, we will have to live with the climate change that we have already set in motion.
- Rich nations need to support the developing countries with finance and technology to enable them to adapt in the face of the risks and vulnerabilities that come along with climate change⁴².
- Political and corporate leaders must recognize that successful resolution requires transformational leadership, not the incremental managerialism currently in vogue. A fundamental redesign and redirection of economic and social structures are urgently required, as the fossil fuel-based, automobile-centered, and throwaway culture of Western economies will not work on a global scale.

Ethical Challenges

Given the seriousness of the challenge ahead of us, we need to realize that climate change has not only scientific, economic and political aspects as the public debate seems to suggest. At its core, climate change needs to be understood as an ethical issue. How we live our lives today will determine the fate of future generations and the most poor and vulnerable, as well as other species that live on this planet that cannot protect themselves against rising sea levels and increasing climate disasters.

As UNDP argues, global warming is the avoidable catastrophe of the 21st Century⁴³. Allowing that tragedy to happen would be the major moral and political failure of our time. The world community lacks neither the financial resources nor the technological capacities to act, nor can we say we did not know about the consequences of our inaction.

While technological innovation and voluntary reductions of energy consumption will certainly be necessary to curb carbon emissions, they will not be sufficient to the problem: a response that is commensurate with the problem requires deeper and wider changes. Our solutions need to be comprehensive and systemic rather than incremental. What is required is a change of mind and hearts, or what James Gustave Speth calls “the rise of a new consciousness”⁴⁴: We must question the way we eat and work, how we travel and do business, how we produce energy and grow our food.

Mahatma Gandhi said “Earth provides enough to satisfy every man’s need, but not every man’s greed.” The planet cannot support neither the consumption patterns of the developed world or the consumption aspirations of the developing world if they take the lifestyle of the affluent western societies as their role model. We therefore need alternative concepts for “progress”, “wealth”, and “growth”, that will no longer be measured solely by the quantity of goods but rather by the quality of life derived from fulfilling human relationships, mutual care, spiritual growth, and the enjoyment of nature.

In its deepest sense, the challenge of climate change has to do with who we are as human beings, how we relate to nature and how we define our responsibilities towards our fellow human beings, future generations and the greater community of life of which we are a part.

As arbiters of life’s deepest moral values, religious communities, leaders and adherents are ideally positioned to speak out forcefully for the voiceless, for the poor and for future generations. They should be at the forefront of reminding individuals, organizations, businesses and governments of what is at stake if we fail to act on global warming.

Key questions to consider

- In times to come, how will our time be remembered? What kind of world do we want to leave to our children and grandchildren, and how will we answer if they ask us why we exposed them to the risk of global ecological and humanitarian disaster?
- Will we be able to foster the political will to take decisive action before it is too late?
- Will we be able to reach a fair and equal distribution of emission entitlements among the nations?
- Will we be able to avoid what Desmond Tutu called “adaptation apartheid”⁴⁵ – a situation where the residents of Amsterdam, London, Los Angeles and Tokyo will be protected with elaborate climate defence systems while the vulnerable and the hungry are exposed to the harsh reality of climate change, a problem that is not of their making?
- Bearing in mind the instrumental role that the Universal Declaration of Human Rights played and still plays in catalysing the aspirations of millions of people and defining a common standard of achievement for all peoples and nations, which values should guide the massive transition which is needed to move the world towards sustainable living and sustainable development?

The Transformative Power of Faith and Hope: Religious Responses to Climate Change

The purpose of this section is to provide a brief overview of how different religious traditions are addressing climate change. The aim is not to give an exhaustive list but to show the diversity of religious answers to global warming, to present some good practices for other groups and institutions to follow, and assess the level of religious activism on this crucial issue. An instructive resource for further reading is Elizabeth Allison's paper 'Religious Organizations Taking Action on Climate Change' that highlights 33 mostly US-based organizations that address climate change from interfaith, religious and secular perspectives⁴⁶.



Fortunately, an increasing number of communities and institutions of every religious faith are waking up to the challenge of climate change and affirm the need to conserve energy resources and protect the environment. Many congregations participate in conservation struggles, ecological restoration projects, community-supported agriculture, and practices of sustainable living including energy efficiency. As Dieter T. Hessel noted, the tipping point of environmental awareness and opinion among the religions has been crossed, so now the question is not whether religions should get involved, but how they should get involved and how seriously they are taking their

(environmental) mission. The following overview gives a few examples of what is already happening.

It is an encouraging sign that religious communities from all major traditions are raising their voices for a just and fair climate deal at the United Nations Climate Change Conference (COP 15) taking place in Copenhagen, Denmark from December 7 to 18, 2009 and are doing many creative activities to make their messages heard in Copenhagen and their own countries.

To find out more about some of the major campaigns supported by different religious organizations, please take a look at the "Countdown to Copenhagen", www.tckctck.org, the "350-Campaign" www.350.org, and the "Global Climate Campaign" www.globalclimatecampaign.org that seeks to mobilize worldwide demonstrations for December 12, 2009.

Ecumenical Christianity

The World Council of Churches with its 349 member churches, representing over 560 million Christians in 110 countries throughout the world, has a long history of working on climate change. As early as 1975, theologians and ethicists of the World Council of Churches discerned that ecology and justice are non-sequential, simultaneous requirements, and began to express this deep interrelation by framing the concept of "eco-justice" that emphasises the basic values of solidarity with all people and creatures, sustainability in development, technology and production, sufficiency as a standard of equitable consumption and organized resource-sharing, and socially just participation in decisions about how to obtain sustenance and to manage community for the good of all.

The ecumenical work on climate change has encompassed ethical and theological reflection, resource development and distribution, advocacy at the international and national levels, and solidarity and accompaniment with churches in areas already experiencing the impact of human induced climate change. Among its most recent publications on this matter is the dossier "Climate Change and the

World Council of Churches” that summarizes the work the WCC has been doing in relationship to climate change and includes some of the recent documents of the WCC and Christian churches in relationship to the topic, including WCC Executive Committee’s Statement on the 10th anniversary of the Kyoto Protocol in 2007 that urged the international community to adopt a broader and more radical timetable of action against climate change⁴⁷.

Ecumenical institutions play a central role in sharing information and common experiences of responding to climate change. The Eco-Justice Programs of the National Council of Churches of Christ of the USA have launched the campaign “Faithful Christians Cooling the Climate” that suggests actions for individuals, churches, congregations and youth groups and provides many useful resources such as sermon starters, liturgy, hymns and suggestions on how to plan a candlelight climate vigil⁴⁸.

Following the example of the Ecumenical Patriarchate in Istanbul, which issued a call to observe September 1 (the beginning of the liturgical year in the Orthodox Church) as creation day, several churches in Europe started to dedicate a special season of the year to creation, beginning with September 1. The European Christian Environment Network (ECEN) collected background information, theological reflections, and impulses for liturgy to be used in this Creation Time and published these resources in several languages⁴⁹. On their website www.ecen.org ECEN has also put together some special materials on the topic on climate change and the Copenhagen Summit that suggest different ways how churches can contribute to sending a strong and unified message to the assembled governments.

Church-based Projects

In many parts of the world, churches are reducing their carbon footprint by engaging in energy efficiency programs and purchasing renewable energy. In the US, the Episcopal Church paved the way with its award-winning Episcopal Power and Light Campaign that was expanded into an interfaith initiative: Interfaith Power and Light reaches across 28 US states and unites more than 4.000 congregations in reducing the devastating effects of global warming by conducting energy audits and purchasing green power.



In Germany, the ecological management programme “The Green Rooster” has been developed to apply the official European Ecological Management and Auditing Scheme (EMAS) issued by the European Commission to the context of the churches. More than 200 Protestant and Catholic churches and church-based institutions went through an elaborate certification process which culminated in being audited by an external expert and granted the “Green Rooster” certificate.

To facilitate this process, the dioceses and regional churches in Germany have established environmental directorates that train volunteer environmental tutors and auditors who help the individual congregations to go through the auditing process.

Based on the positive experiences gained with EMAS, 15 pilot institutions in Germany, Austria, Spain and France have been audited in the Sustainable Churches project based on EMAS^{plus} that contains an improvement cycle involving action not only on environmental but also on economic and social issues.

Apart from the commitments made under the ecological management system that involve the reduction of energy use, water consumption, and waste production, institutions that adopt a sustainability management system set out to

- Procure their goods in an environmentally and socially responsible way
- Protect the interests of their staff (security of employment, initial and continuing education and training, system for staff suggestions, family-friendly policies and flexible working time models)
- Fulfil their social responsibility through diverse measures such as ethical investments and support for civic activities
- Gain economic success through strategic long-term optimisation of their activities

For the introduction of the EMAS^{plus} sustainability management system, detailed documentation was developed and tested, including checklists, questionnaires, methodological guidelines, a management handbook and an open source software that enables the collection and regular evaluation of quantitative and qualitative sustainability indicators⁵⁰.

The Catholic Church



Under Pope Benedict's thoughtful leadership, the Catholic Church is increasingly becoming "green". On numerous occasions he spoke out for the responsibility of Christians to be stewards of God's creation.

In his message for the World Day of Peace 2008 he stated: "One area where there is a particular need to intensify dialogue between nations is that of the stewardship of the earth's energy resources. The technologically advanced countries are facing two pressing needs in this regard: on the one hand, to reassess the high levels of consumption due to the present model of development, and on the other hand to invest sufficient resources in the search for alternative sources of energy and for greater energy efficiency."⁵¹

In questioning the unsustainable consumption patterns in affluent Western societies, Benedict can draw on the teachings of John Paul II who in *Centesimus Annus* in 1991 criticised "a style of life which is presumed to be better when it is directed towards 'having' rather than 'being' " and urged people to "create life-styles in which the quest for truth, beauty, goodness and communion with others for the sake of common growth are the factors which determine consumer choices, savings and investments."⁵²

Pope Benedict has moved one step further by installing 2.000 solar panels on the roof of the Vatican's main auditorium building, and committing to restore 37 acres of forest in Hungary to offset Vatican City's carbon emissions. The Pope is therefore hailed as the first head of state that has actually created a carbon-neutral economy.⁵³ In his encyclical "*Caritas in Veritate*" (Charity in Truth) he reiterates the need for "an effective shift in mentality" and the adoption of new life-styles as suggested in the above quoted passage of *Centesimus Annus*, and states: "The church has a responsibility towards creation and she must assert this responsibility in the public sphere. In so doing, she must defend not only earth, water and air as gifts of creation that belong to everyone. She must above all protect mankind from self-destruction."⁵⁴

Following these teachings, Caritas Internationalis has launched a new report on "Climate Justice: Seeking a Global Ethic" that focuses on the ethical, moral and theological dimensions of the climate crisis. The report draws on the rich experience of Catholic organizations to support the world's poorest and most vulnerable for whom the harsh effects of climate change are already a daily reality, discusses Biblical principles that could be the basis for framing credible responses to the major environmental challenges, and calls for concerted action for "putting people first", especially by adopting mitigation and adaptation policies focused on those who are most vulnerable⁵⁵.

Orthodox Christianity

"The Green Patriarch" is a title of honour given to His All Holiness, Bartholomew I, Archbishop of Constantinople, New Rome and Ecumenical Patriarch, the spiritual leader of 300 million Orthodox Christians. In an article entitled "The 'Pope' of Hope" published on June 18, 2008, the British newspaper The Guardian called Bartholomew "one of the most influential figures in the fight against climate change and world poverty".⁵⁶

Since 1995, Bartholomew is organizing biennial "Religion, Science and the Environment Movement"-Symposia that are being held on cruise ships that bring religious leader, scientists, environmental experts and politicians to the front-lines of environmental degradation such as the Black Sea, the Amazon and the Arctic. In his opening remarks to the Symposium of 2002 in the Adriatic Sea, Bartholomew addressed the deeper and inner causes of our environmental crisis:

"We often refer to an environmental crisis; but the real crisis lies not in the environment but in the human heart. The fundamental problem is to be found not outside but inside ourselves, not in the ecosystem but in the way we think.



The root cause of all our difficulties consists in human selfishness and human sin. What is asked of us is not greater technological skill but deeper repentance, metanoia, in the literal sense of the Greek word, which signifies 'change of mind.' The root cause of our environmental sin lies in our self-centeredness and in the mistaken order of values, which we inherit and accept without any critical evaluation.

We need a new way of thinking about our own selves, about our relationship with the world and with God. Without this revolutionary 'change of mind,' all our conservation projects, however well-intentioned, will remain ultimately ineffective. For, we shall be dealing only with the symptoms, not with their

cause. Lectures and international conferences may help to awaken our conscience, but what is truly required is a baptism of tears."⁵⁷

The symposia played a crucial role in lobbying the Albanian government to clean-up toxic waste that was poisoning the Adriatic Sea in Porto Romano and pressuring Brazilian soy bean traders to agree on a two-year moratorium on crops from newly deforested land⁵⁸.

Evangelical Responses

While some scepticism about the reality of human-induced climate change prevails, more and more leaders of the Evangelical community are recognizing the dangers of climate change and calling on their adherents to be good stewards of the Earth.

In November 2002, the Evangelical Environment Network (EEN) officially launched the "What Would Jesus Drive" (WWJDrive) educational campaign to help Christians and others understand the relationship between transportation choices and the three major problems of human health impacts, the threat of global warming, and the increasing American oil dependence. During the campaign, automobile executives were urged to improve the fuel economy of their fleets; a large number of Christian leaders signed the WWJDrive Call to Action; and fact sheets and resources for preaching, teaching, hosting community discussions and establishing a system of carpooling were developed. The

core element of the campaign was a tour through the Bible belt from Austin, Texas, to Washington, DC that Rev. Jim Ball, executive director of the EEN and his wife did in their hybrid, fuel-efficient car, visiting churches and elected officials to help reframe the national debate over gas-guzzling cars as a moral choice.

In January 2006 the Evangelical Climate Initiative was formed that published a statement signed by 86 prominent Evangelical leaders. Reacting to the scepticism regarding the reality of human-induced climate change, the statement cites the Bush administration and concludes: "In the face of the breadth and depth of this scientific and governmental concern, we are convinced that evangelicals must engage this issue without any further lingering over the basic reality of the problem or humanity's responsibility to address it."⁵⁹

In spring 2007, students of 60 evangelical colleges and seminaries participated in a Step It Up grass roots campaign initiated by "End of Nature" author Bill McKibben. The campaign culminated in local demonstrations in more than 1,400 places throughout the US to demand that Congress commit to cutting carbon emissions by 80 % by 2050, and to creating millions of "green collar" jobs. The evangelical participation was supported by Calvin DeWitt, President of the Academy of Evangelical Scientists and Ethicists who issued and circulated a statement to endorse the campaign.

Jewish Responses

Within Judaism, the US-based Coalition on the Environment and Jewish Life (COEJL, www.coejl.org) was among the first organizations to formulate Jewish answers to climate change⁶⁰. Established in 1993 by the Jewish Council for Public Affairs, the Religious Action Center of Reform Judaism, and the Jewish Theological Seminary of America, COEJL partners with the full spectrum of Jewish organizations in the USA to deepen the Jewish community's commitment to stewardship of creation and protection of the Earth and all its inhabitants.

In 2006, COEJL launched a Four-Part Climate Change Campaign consisting of interconnected programs

- To encourage Jewish institutions to use CFL light bulbs,
- To encourage synagogues to go green by conducting energy audits, offering Torah studies on Judaism and the environment and providing Jewish environmental education to children and youth
- To encourage the Jewish community to "take your senator to synagogue" and interact with political leaders on the issues of energy efficiency and climate change
- To encourage Hebrew schools, youth groups, congregations and other Jewish youth institutions to become part of the Climate Challenge, a worldwide youth initiative aiming at becoming carbon neutral.

In early 2009, the New York-based Jewish environmental organization Hazon ("vision") and the Israel-based Jewish Climate Initiative launched their initiative for developing a "Seven Year Plan for the Jewish People on Climate Change and Sustainability" with a conference in Jerusalem that brought together 55 selected experts. In an interview with the Jerusalem Post, Dr. Michael Kagan spoke about the need to identify specific elements in Judaism that might be useful to the climate change debate, such as the Shabbat, the weekly day of rest: "Shabbat is all about conservation and awareness. We started thinking about how we could translate Shabbat principles into everyday life."⁶¹

The completed Seven Year Plan can be read at the website of the International Jewish Climate Change Campaign (www.jewishclimatecampaign.org). It is divided into sections on theology; education; lifestyles; celebration; assets and greening of institutions; policy and advocacy; and partnership. It suggests activities to be taken at different levels so that by September 2015, the end of the next shmita (sabbatical) year in Jewish time the Jewish community will be living healthier and more sustainably.

Inter alia, the Plan proposes to:

- Turn Israel into the first nation predominantly powered by renewable energy,
- Recover the ecological value of Shabbat and the festivals as a day to step back from the process of creation,
- Green Jerusalem so that a city holy to many millions of people around the world, becomes a sustainable city,
- Increase Jewish support for those around the world who are most affected by climate change,
- Cut communal meat intake by half by 2015,
- Integrate environmental education into rabbinical and educational tools.

All members in the Jewish community in Israel and worldwide are called to sign the Jewish Climate Campaign and launch their own projects, ideas, and activities that may help to realize the vision outlined in the Seven Year Plan.

Muslim Responses

The UK is the hotspot for Muslim engagement on climate change and the environment: In the mid 1980's the Islamic Foundation for Ecology and Environmental Sciences (IFEES) has been established as "perhaps the only internationally recognized body articulating the Islamic position on environmental matters"⁶².

IFEES is active on large variety of fields, such as:

- Carrying out research and disseminating information on environmental issues;
- producing teaching materials, books and journals;
- Campaigning with mainstream environmental organizations on climate change, fair trade, sustainable development and GM foods; and
- Supporting the formation of autonomous environmental groups to engage in educational, awareness raising and campaigning activities.



Another UK-based pioneer of local Islamic ecological activism is the London Islamic Network for the Environment (LINE).

Being open to people of all faiths, LINE hosts monthly forums and undertakes many activities, including:

- Providing space for deep dialogue, enquiry and reflection
- Organizing and conducting educational events in various settings on a diverse range of topics such as Islam and ecology and economy, Islam and wastefulness / consumption, climate change, and how to develop strong networks;

- Organizing ecological justice activities such as climate change marches, campaigns for the implementation of a strong climate change bill and coordinating media stunts⁶³.
- Organizing a photograph exhibition on "Climate Change & Islam: A Visual Journey", raising awareness about climate change in different parts of the world, including a number of predominantly Muslim countries.
- Hosting social events and nature outings such as organic picnics and other opportunities to sense, connect with, and learn from nature.

The Muslim Seven Year Action Plan on Climate Change 2010 – 2017 was presented at the Windsor Castle celebrations by a group of renowned Muslim leaders including the Grand Mufti of Egypt, Sheikh Ali Goma'a⁶⁴. It has been drawn up by Earth Mates Dialogue Centers, a UK-based non-profit organization who receives assistance from the Kuwaiti Ministry of Awqaf and Islamic Affairs. At a conference held in Istanbul in July 2009, the Plan was endorsed by more than 50 religious scholars from across the Muslim world. It proposes the creation of an umbrella organization to manage and implement the Plan, the Muslim Associations for Climate Change Action (MACCA) to be based in London.

MACCA will oversee the implementation of the different strategic goals of the plan, including to:

- Establish an Islamic environmental labelling system with strict authenticity standards
- Work towards a 'Green Hajj' with the Saudi Minister of the Hajj
- Pilot the construction of a 'green mosque'
- Develop two or three Muslim cities as 'green city' – the first of which will be Madinah, one of Islam's most important cities.
- Promote environmental education in Islamic Institutions and teacher training facilities
- Work towards printing a 'green Qur'an on paper that comes from sustainable wood supplies⁶⁵

Buddhist Responses



Within Buddhism, the Deer Park Monastery in California, USA, led by Vietnamese Zen Master Thich Nhat Hanh, presents us with a shining example of a carbon-neutral monastery. Since spring 2008, the monastery has been producing all its electricity with clean solar power. Their 68-kilowatt photovoltaic system produces all the electricity needed by the monastery residents and practitioners attending retreats, besides the solar energy is made available to the surrounding communities without charge.

Apart from a strong focus on simple monastic living and eating a strictly vegetarian diet, the monastery is supporting car-free days held once a week, has purchased two electric vehicles to shuttle residents and visitors through the 400-acre sanctuary, and even recycles its kitchen oil to fuel its primary automobiles. Part of the cooking and hot water boiling is done with solar cookers.

The solar panels were inaugurated with a festive ceremony. After incense offering and chanting the Heart Sutra, the Abbot of Solidity Hamlet at Deer Park Monastery, read the Offering to the Land Ancestors for the Dedication of Solar Energy in which he stated:

"As practitioners we see we are part of and not separate from the whole of human civilization. As human beings we see that we are children of the Earth and not separate from the soil, the forests, rivers and sky. We share the same destiny. We are aware that much harm has been done to the Earth out of

ignorance, craving and arrogance. As children of this land we ask for your great compassion to forgive us for these shortcomings. Today we are determined to begin anew-- to make all efforts, large and small, to collectively effect real change in our global ecological situation."⁶⁶

In Tibetan Buddhism, the XVIIth Gyalwang Karmapa Orgyen Drodul Trinley Dorje, the young and charismatic head of the Karma Kagyu lineage has exerted a strong commitment to the protection of the environment. Among other things, the 24-year old Karmapa has made a strong pledge for promoting a vegetarian lifestyle and released a Guidebook for Kagyu Monasteries and Centers for taking care of their local environment that makes a strong point for recognizing the interdependence of all forms of life on Earth:



"Buddha taught that the well-being of all life on Earth, not just human, is important and equally valuable. Just as human beings wish to flourish, so do the different forms of non-human life. Hence, we have an obligation to adhere to a more thoughtful way of living, which results in a natural balance and a harmonious future."⁶⁷

On Earth Day 2009 he published the booklet "108 Things You Can Do To Help the Environment" that includes practical guidelines and sample activities on a range of fields such as the promotion of environmental values, the protection of forests and wildlife, the conservation of rivers, lakes, and wetlands, conserving water, adopting green design, saving energy and becoming carbon neutral⁶⁸.

The Buddhist practitioners Dr. John Stanley from Ireland, Dr. David R. Loy, Professor of Ethics and Religion at Xavier University in Cincinnati, USA, and the Tibetan Buddhist scholar Dr. Gyourme Dorje have edited the book "The Buddhist Response to the Climate Emergency" that includes contributions of the Dalai Lama, Thich Nhat Hanh, the Karmapa, and more than 20 other Buddhist leaders in Asia and the West from different Buddhist traditions. Several essays, teachings, interviews, and aspirational prayers of the book can be read online at the website www.ecobuddhism.org that the authors created.

The website also presents a pan-Buddhist Declaration on Climate Change "The Time to Act is Now" that endorses the 350 ppm target and calls for significant changes in how our economic system is structured:

"From a Buddhist perspective, a sane and sustainable economy would be governed by the principle of sufficiency: the key to happiness is contentment rather than an ever-increasing abundance of goods. The compulsion to consume more and more is an expression of craving, the very thing the Buddha pinpointed as the root cause of suffering."

The Declaration is open for being signed by both Buddhists and non-Buddhists, and will be submitted to the negotiating governments at the Copenhagen Summit in December 2009.

Hindu Responses

There are also many examples of how leaders and organizations from a Hindu background are taking action on climate change. The Indian humanitarian and spiritual leader Sri Mata Amritanandamayi Devi (Amma), also known as "the hugging saint" created the GreenFriends Initiative that is active in many countries around the world.

Back in 1994, Amma published a brochure on “Man and Nature”, in which she answered questions posed to her by the American environmentalist Samuel LaBudde, and referring to the increasing awareness about the dangers of climate change she stated:

“The legendary dinosaur and many other living species have been completely wiped from the face of the earth, because they could not live in the changing climatic conditions. In a similar manner, if man is not careful, when his selfishness has reached its peak, he too will have to succumb to the same fate.”

Explaining the concept of the interdependence of all life, which is a cornerstone in traditional Indian thought, she writes:

“None of us would consciously injure our own body, because we know it would be painful. Similarly, we will feel the pain of other people to be our own when the realization dawns within us that everything is pervaded by one and the same Consciousness. Compassion will arise, and we will sincerely wish to help and protect all. In that state, we won’t feel like plucking even a leaf unnecessarily.”

On her tireless travels on which she so far has hugged and embraced an estimated 29 Million people, Amma seeks to inspire people all around the world to cultivate their love and respect for Mother Nature, and initiate their own GreenFriends Groups and Projects.



In India, GreenFriends launched the Amrita Van am – the “Immortal Forests”- Reforestation Programme in which more than 800,000 saplings have been planted since 2002 in Kerala in Southwest India; started a project on the protection and proliferation of sacred groves in the region where one can experience the oneness of all creation; started greening some coastlines to make them more resistant to soil erosion and potential floods or Tsunamis; opened an Ecology Center at the Amritapuri Ashram that offers a variety of environmental products; and organized Nature Talks, Forest Retreats and other Educational Activities to raise awareness about the interrelatedness of all living beings⁶⁹.

GreenFriends-France are transforming Amma’s French Center, the Plessis Farm near Chartres, located at a 120 km from Paris, into a model ecosite where harmony in and with nature can be experienced and works on five priority fields of activity:

- Supporting the ecological development of Amma’s French Center, for example through environmentally sound and climate-friendly renovations of old buildings on the Farm; taking care of 6 ha of mainly wild natural spaces surrounding the farm, and maintaining an organic garden that now occupies more than 1.000 m².
- Helping to improve ecological consistency in one’s life and in Amma’s Center by using solar ovens for cooking meals in summer; installing dry composting toilets to save water and turn excrements into useful compost for the plants and flowers; composting organic waste; and placing little inspiring cards in different places of the Center to awaken ecological consciousness in the day-to-day acts of visitors
- Organizing workshops and events such as eco-trainings, youth retreats and environmental forums and conferences
- Offering ecological services to reduce the ecological footprint of Amma’s events in France and Europe that gather tens of thousands of people and making them as ecologically exemplary as possible by offering vegetarian and partly organic food, installing dry composting toilets, sorting out waste for recycling, and setting up a system to audit and offset the carbon emitted at these events.

- Accompanying the creation of ecovillages as “a place of sharing, of life in community and the return to the community’s traditional values, where everyone has a place, where nobody was excluded, and where the social aspect was a vector of happiness for everyone.”⁷⁰

More information about the projects and activities of GreenFriends-France can be found at <http://www.greenfriends-france.org/>

Interfaith Projects and Organizations

Apart from the mentioned denominational and ecumenical institutions, there are a growing number of interreligious organizations that are helping the religions to recognize their environmental responsibility and provide platforms for sharing experiences and building alliances. Among these are Faith in Place (a Chicago cluster), Earth Ministry (a Seattle based regional program), GreenFaith, (active in New Jersey), Religious Witness for the Earth (active on the US East Coast), and the National Religious Partnership for the Environment (working with the National Council of Churches of Christ, the US Conference of Catholic Bishops, the Evangelical Environmental Network and the Coalition on the Environment and Jewish Life). Important scientific background on religious intersection with the environment is provided by the Forum on Religion and Ecology as well as the Yale Project on Climate Change, Religion and Ethics.

While these organizations mostly have a strong focus on the United States, the main environmental interfaith organization with a global outreach is the Alliance of Religions (ARC), based in Bath, UK. ARC’s beginnings can be traced to the historic meeting of environmental and religious leaders in Assisi in 1986, where the World Wide Fund for Nature (WWF) celebrated its 25th anniversary by bringing together, for the first time in history, five major world religions to explore and explain what their faith teaches them about care for nature. What resulted were the Assisi Declarations from Buddhist, Christian, Hindu, Islamic, and Jewish leaders to their own faithful.



In December 2007, UNDP pledged to join ARC in advancing a major international programme on the religions, climate change and the natural environment. The natural environment was included because both groups noticed that it was too frequently being forgotten. In the course of the project, leaders from the 11 ARC member faiths (Baha’ism, Buddhism, Christianity, Daoism, Hinduism, Islam, Jainism, Judaism, Shintoism, Sikhism, and Zoroastrianism) as well as some of the major faith-related women’s organizations that are working with the environment are being invited to adopt their own Seven Year Plans of Action. From November 2 – 4, 2009, His Royal Highness Prince Phillip hosted a festive event at Windsor Castle that brought together faith leaders from around the world and was attended by UN Secretary General Ban Ki-moon⁷¹. The Celebration launched more than 30 long-term commitments from major traditions within 9 different faiths. These Commitments cover for example: all Daoist Temples in China solar powered; creating faith-based eco-labelling systems in Islam, Hinduism and Judaism; greening all types of religious buildings; protecting sacred forests; developing ethical investment policies; printing sacred books on environmentally-friendly paper; creating educational programmes through the faiths’ major role in both formal and informal education⁷².

More information about the Celebration at Windsor Castle, the Plans of Action and ways to create your own Long Term Faith Plan for the Living Planet can be found at <http://www.arcworld.org>.

Assessment

Looking at these good practices, three major tasks become obvious:

1. We will need to increase efforts to help these positive examples of religious engagement on climate change reach into the religious mainstream. Their outreach and impact needs to be scaled up so that a larger number of faith communities can join in, benefitting from the experiences already gained in these pioneer projects. The 7 year plans that ARC is preparing with the major religions seems to be a good strategy to engage a large number of faith groups on environmental issues, given that their development will involve as many stakeholders as possible. In addition, the task of mainstreaming will require a better documentation of the best practice examples so that they can be made available to a larger public.
2. A stronger exchange between environmental organizations, environmental sciences, and faith communities is required. There is the need for facilitating dual learning processes between these groups. Faith Communities have much to contribute to the global struggle against climate change, especially by addressing the deeper ethical and spiritual questions it entails. On the other hand, they need additional support, encouragement, and training in their work on environmental matters so that their work is based on the best available science and knowledge.
3. To reach highest efficiency, the religious answers need to be based on a systemic approach. As Dieter Hessel writes: "While voluntary reduction of energy consumption is a prominent aspect of what needs to be done to keep global warming from becoming catastrophic, a response that is commensurate with the problem requires deeper and wider changes. If the response is not systemic, we are likely to see an increasing green style among affluent consumers that actually do little to reduce overall CO₂ emissions."⁷³

This is where the Earth Charter comes into play: it provides an integrated ethical vision that was drafted in the largest and most open and participatory consultation process ever conducted in history. It draws on a large variety of sources such as contemporary science, international law, the declarations and reports of major UN summits, the teachings of indigenous peoples, as well as the wisdom of the world's great religions and philosophical traditions.

Integrating the knowledge of these different sources, the Earth Charter outlines how our environmental, social, and spiritual challenges are interrelated and how they can be addressed in a holistic, integrated and systemic manner. Not identifying with any religious tradition in particular, the Earth Charter can serve as a starting point for interreligious dialogues about the major challenges humanity is facing, and how we can collaborate to find lasting solutions.

It encourages us to search for common ground in the midst of our diversity and to embrace a new global ethic that is shared by an ever growing number of people throughout the world. Articulating a consensus on shared values taking form in the emerging global civil society, the Earth Charter can act as a bridge between religious concerns and the practical problems entailed by climate change. Being embraced and endorsed by secular and religious institutions alike, it provides a platform for dialogue and joint collaboration between groups and institutions from different sectors of society.

The Earth Charter's integrated ethical approach to climate change

"The battle against dangerous climate change is part of the fight for humanity. Winning that battle will require far reaching changes at many levels – in consumption, in how we produce and price energy, and in international cooperation. Above all, though, it will require far-reaching changes in how we think about our ecological interdependence, about social justice for the world's poor, and about the human rights and entitlements of future generations."

(Human Development Report 2007/2008, p. 13-14)

The Background of the Charter

In this statement, the Human Development Report expresses the central message that the struggle against global warming requires fundamental changes in our values, institutions and ways of living. It requires a change of mind and heart. It requires a new sense of global interdependence and universal responsibility for the wellbeing of the human family and the larger living world. To inspire these changes is the central aim of the Earth Charter and the global network of people, organizations and institutions that participate in translating its principles into practice.



The Earth Charter is a declaration of fundamental principles for building a just, sustainable and peaceful global society in the 21st century. It is an expression of hope and a call to help create a global partnership at a critical juncture in history. It was drafted in a decade-long, worldwide, cross-cultural and interreligious dialogue on common goals and shared values and presents an inclusive framework for thinking about, talking about, and taking action on the deeper causes of the global climate crisis and the other global challenges that are related to it.

In the Earth Charter consultation several hundred religious leaders, theologians, experts and organizations from Bahá'í, Buddhist, Christian, Confucian, Hindu, Indigenous, Islamic, Jain, Jewish, and Shinto traditions shared their visions for a just, sustainable and peaceful world. Apart from these inputs, a broad range of religious, ecumenical and interreligious texts, statements and declarations were reviewed and used as a basis for the Earth Charter's inclusive global vision for sustainable living.

Important input also came from a series of ten major conferences on Religions of the World and Ecology that were held at the Harvard Divinity School Center for the Study of World Religions (CSWR) from May 1996 to July 1998. In these conferences, some 800 scholars and activists from around the world explored the potential of the world's religions to contribute to the crucial effort of re-visioning human-Earth relations. Earth Charter Benchmark Drafts were discussed and commented on during the conferences, which played an essential role in distilling a global consensus among the world's religions on a new planetary ethics on environmental sustainability.



The global dialogue on shared values and global ethics in which the Charter was created was an end in itself – an inspiring example of exchange and collaboration across social, cultural, linguistic and religious boundaries and a contribution to advancing understanding, tolerance, peace and solidarity among the world's religions, cultures and nations.

Since its launch in the year 2000, hundreds of religious organizations use the Earth Charter in their efforts of conducting environmental education and teaching the vision and values of eco-justice ethics; raising awareness of the meaningful linkages between the environment, justice and faith; enacting environmentally inspired liturgy and forming interreligious alliances to safeguard our planet. In these

activities, they follow the Earth Charter' call for a continuation of the global dialogue process in which the Earth Charter was drafted: 'We must deepen and expand the global dialogue that generated the Earth Charter for we have much to learn from the ongoing collaborative search for truth and wisdom.'

The central messages of the Earth Charter include:

- The global challenges we are facing are interconnected and systemic.
- Our interconnected challenges require integrated answers; fragmented or one-sided solutions do not work.
- For finding integrated solutions, we need a holistic vision grounded in core values that are shared across national and cultural boundaries.
- In the ongoing collaborative search for common goals and shared values, our religious communities have a vital role to play.

A methodology for assessing the ethical challenges of climate change with the Earth Charter

In an open letter to Al Gore and the organizers of the Live Earth events held on 07 07 2007, Earth Charter International Council Co-Chair Steven C. Rockefeller and then ECI Executive Director Alan AtKisson called for seeing the bigger picture of climate change: "Melting glaciers, rising seas, and changing rainfall patterns should be seen as symptoms of a greater illness. Other symptoms include growing poverty in some parts of the world, overconsumption in others, grave challenges to peace and human rights and the degradation of the environment everywhere."

The Earth Charter is a key guide for seeing this bigger picture, and addressing our global emergencies in an integrated manner. It is an ethical frame of reference for guiding personal, community and institutional practices, and for choosing among public policy options. As Dieter Hessel puts it: "The Charter helps people of all ages in every walk of life to recognize global/local patterns of eco-injustice and unsustainable living, and to discern both the spirit and the substance of truly sustainable development that respects every kind while building healthy community."⁷⁴

Within religious communities and institutions at all levels, the Earth Charter may therefore serve as a guideline and framework for assessing individual, community and institutional practices and initiating a process of integrated ethical reflection on the critical choices facing humanity. Only a deep understanding of our current planetary situation as well as of the drivers of our global challenges will provide an adequate basis for framing responses that are commensurate with the depth of the problems we are facing.

In this context, Hessel suggested an instructive methodology for integrated ethical reasoning based on the Earth Charter that should:

- Draw on the Earth Charter's main principles and supporting principles as interactive imperatives for a sustainable way of life;
- Think across the four parts of the Charter to emphasise combinations of ethical imperatives that ought to guide our response to current issues of ecological integrity, social and ecological justice, democracy and peace; and assess

- Bring Earth Charter principles to bear both as general ideas and as practical guidelines for personal, institutional and governmental conduct in the historical situation now confronting us⁷⁵.

In religious contexts, the reflection process could be based on the triangular basis of sacred texts and religious scriptures, the most recent scientific facts and findings on the matter, and the Earth Charter as a shared ethical framework that clarifies the critical challenges and choices facing the human community. This suggested model of ethically aware eco-social analysis could be used in seminars, theology and ethics classes, congregational study groups and interfaith dialogues.

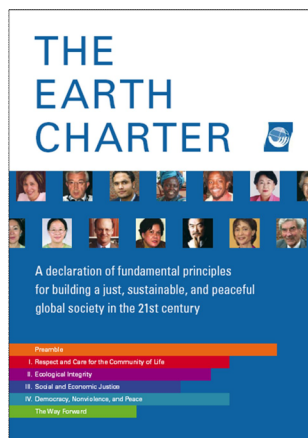
The process should include the steps of

- Gaining a macro-perspective on the interdependent challenges posed by global warming
- Analysing its root causes
- Framing inclusive responses

Understanding the holistic, layered structure of the Charter:

The analysis should be facilitated with a solid understanding of the structure of the Earth Charter's ethical tapestry:

The Earth Charter opens with inspiring and sobering words about the challenges to human beings of living in these times, and closes with a call to responsible action and commitment. In between, the Charter lists a set of sixteen general ethical principles, and sixty-one more specific supporting principles, that can help us with an essential task for the 21st Century: discerning right from wrong action in the care of nature and development of sustainable communities.



The [Preamble](#) captures the worldview change which grounds the principles that follow and points toward “the key constellations by which we can navigate across the vast ocean in the dark night”⁷⁶.

Part I. [Respect and Care for the Community of Life](#), sets forth four over-arching principles that express the ethical vision that carries through the whole document. The first of the Earth Charter’s four general principles “Respect Earth and life in all its diversity” affirms the interdependence and intrinsic worth of all forms of life.

Part II [Ecological Integrity, Principles 5 – 8](#)), III ([Social and Economic Justice, Principles 9 – 12](#)), and IV ([Democracy, Non-violence and Peace, Principles 13 – 16](#)) present twelve main principles that specify

what must be done to embody the broad commitments expressed in the four over-arching principles of Part I.

[The Way Forward](#) sums up the challenge of seeking a new beginning in the light of our global emergencies, and presents us with an inspiring call to celebration and action: “Let ours be a time remembered for the awakening of a new reverence for life, the firm resolve to achieve sustainability, the quickening of the struggle for justice and peace, and the joyful celebration of life.”

The structure of the Charter reflects the recognition that humanity's environmental, economic, social and cultural challenges are all interrelated and require holistic thinking and inclusive problem solving. The four parts of the Charter represent four integrated pillars of what constitutes truly sustainable conduct. Taken together, the Earth Charter principles thus present a comprehensive definition of what is necessary to build sustainable communities everywhere.

Step 1: Gaining a macro-perspective on the challenges we are facing

By holding the preamble and principles of the Earth Charter in one hand and the data on climate change collected in the previous sections of this guide in the other, our ethical reflection on this urgent issue comes alive. While the Charter does not directly refer to "climate change" or "global warming" as such, it addresses the much deeper problem within our societies of which climate change is merely a symptom.

Any ethical reasoning based on the Earth Charter should begin with a serious attempt to fully perceive and take in the global, long-term and far-reaching dimensions of the issues that are to be assessed. The Preamble of the Earth Charter challenges us to perceive our planetary situation in the widest possible perspective: "We stand at a critical moment in Earth's history, a time when humanity must choose its future." As revealed in the term "Earth's history" as opposed to "world history" or "human history", the Earth Charter calls us to build a multi-form, planetary civilization inclusive of both cultural and biological diversity whose comprehensive care and compassion needs to extend to the whole Earth community.

Scientific data on the implications of human-induced climate change reveals that we are facing a macro-scale crisis that does not only threaten the survival of the human species, but puts up to 50 % of all of earth's species to the brink of extinction within the next one hundred years if we proceed emitting greenhouse gases at current rates⁷⁷.

As overarching framework and comprehensive context for rethinking our role and purpose as humans, the Earth Charter takes the evolutionary processes that guide the unfolding of the universe itself: "Humanity is part of a vast evolving universe. Earth, our home, is alive with a unique community of life." A controversial statement for some, this sentence was introduced by an astrophysicist from Tufts University, Eric Chaisson, to include a cosmological vision for seeing ourselves in the context of the vastness of time and space of the universe that evokes wonder and awe. The inclusion of the phrase "Earth, our home, is alive" was of special importance to representatives of indigenous people.

Reading the full sentence and recognizing that it is "the unique community of life" that is enlivening our planet reveals the careful intersection of diverse religious and cultural perspectives, as well as a balancing of these perspectives with key insights derived from natural sciences.

In religious contexts, selected parts of the Charter could be read and analysed as starting points for assessing the global situation and facilitating a discussion that is based on the newest scientific findings. These discussions should be infused with a thorough analysis of the social and ecological teachings of religious scriptures.

Questions to consider:

- What do our sacred texts say about the role and the purpose of human beings on this planet?
- What are our obligations towards human kind, animals, plants, and the larger natural world?
- How do our religious scriptures relate to the comprehensive cosmological vision as expressed in the Earth Charter? Where are the gaps and challenges?

Step 2: Assessing the root causes of climate change

After having explored our planetary situation at this critical juncture of Earth history, the second step should involve a critical assessment of the drivers and underlying causes of the interrelated challenges we are facing: "The dominant patterns of production and consumption are causing environmental devastation, the depletion of resources, and a massive extinction of species. Communities are being undermined. The benefits of development are not shared equitably and the gap between rich and poor is widening." ([Preamble](#))

The listed challenges point to a deeper problem connected to the use and distribution of resources around the world: During the past fifty years, governments in the United States and Europe have deregulated money and trade and have created a global economic system that has sent the planet's climate into overdrive⁷⁸. The quest for economic growth has become the universal creed of the twentieth century, which fosters ever more production, consumption, and maldevelopment indifferent to effects on the environment and the poor.

According to the Worldwatch Institute, a world population of 6.5 billion people used an equivalent of 9.3 billion tons of oil in 2005, which led to 7.6 billion tons of carbon emissions from burning fossil fuels⁷⁹. A large part of the oil was used to fuel the fleet of nearly 900 million vehicles that were on the roads and the 3.7 trillion kilometres that passengers flew on airplanes in 2006⁸⁰.

However, these total numbers mask enormous disparities between the 'haves' and the 'have-nots': The developed countries represent 20 percent of the world population but account for more than 75 % of the cumulative carbon dioxide emissions that have been emitted since 1850, and are responsible for 60 % of today's emissions, as well as for 60 % of global private consumption⁸¹. The United States emits roughly the same amount of greenhouse gases as 2.6 billion people living in 150 developing countries⁸². This situation is aggravated by the fact that the adverse consequences of this misconduct are disproportionately felt by the poor who have not contributed much to creating the problem.

The Worldwatch Report 2008 is therefore right in stating that continued human progress – both material and spiritual – will depend on an economic transformation that is more profound than any seen in the last century⁸³.

This part of the reflection process should be informed by the insights of environmental science that reveal to us that the challenges we are facing are interconnected and systemic.

Questions to consider:

- What do our religious scriptures say about human greed, the will for domination and the violence against humans and nature that dominate modern life and culture?
- How can our sacred texts help us to formulate alternative visions to the modern religions of consumerism and materialism?
- How can religious values, traditions, rituals, and practices help us to adopt ways of living that are less dependent on the extensive use of material and consumption of energy but rather derive their quality from mutual care, trust, and solidarity and the attentive enjoyment of nature?
- How can we take in the massiveness and complexity of the challenge without feeling overwhelmed and disempowered?

Step 3: Framing inclusive responses:

The Earth Charter offers guiding principles and practical steps for starting this transformation in earnest. It offers a coherent, integrated standard for evaluating urgent global / local issues, immediate public policy choices, business and professional codes of conduct, and plans to reform organizational or community habits. The third step therefore involves going through the Earth Charter text for “gathering” Earth Charter principles that help to clarify the issues that are being discussed.

Letting Earth Charter principles “question” what is currently going on to aggravate any key issue we want to address may help us

- 1) To gain a multi-dimensional perspective on this issue,
- 2) To focus on real and urgent concerns stated as imperatives supporting principles that civil society groups around the world communicated to the drafting committee, and
- 3) To consciously articulate values that help to frame our understanding of the issue we confront and to orient us to a practical response.

This section provides a brief discussion of some of the main Earth Charter principles that have a special relevance for framing inclusive responses to climate change. The discussion is followed by a list of questions and practical suggestions that could be considered in the process of the ethical analysis.

I. Respect and Care for the Community of Life

The first four over-arching principles of the Earth Charter set forth the ethic of respect and care that lies at the heart of the Earth Charter.

Principle 1 “Respect Earth and life in all its diversity” stresses that every form of life has value regardless of its worth to human beings. It sets a strong antidote to the utilitarianism dominating the modern economy that has degraded non-human life on Earth to natural “resources” open for limitless

exploitation for human purposes. Many national constitutions and international human right declarations start with reinforcing the inviolable nature of human dignity. The Earth Charter follows this model but takes a first step to transcend the anthropocentrism that is prevalent in these documents. Expanding Immanuel Kant's famous notion to include non-human life, the spirit that undergirds Principle 1a could be summarized as "No living being should be treated as a mere means but always be regarded at the same time as an end."

[Principle 2](#) suggests that the basic attitudes of compassion and love should guide our relationship to the community of all living beings on this planet. In the Earth Charter drafting process, scientists suggested that "understanding" should be added as a third attitude, as we cannot care for the community of life without knowledge. The term "community of life" suggests that humanity is a part of nature instead of apart from nature, as articulated by the theologian Michael S. Northcott: "At the heart of our ecological crisis is the refusal of modern humans to see themselves as creatures, contingently embedded in networks of relationships with other creatures, and with the Creator. This refusal is the quintessential root of what theologians call sin. And like the sin of Adam, it has moral and spiritual as well as ecological consequences."⁸⁴

The [Subprinciples 2a and 2b](#) affirm our common but differentiated responsibility to prevent environmental harm and protect the rights of people: "Affirm that with increased freedom, knowledge, and power comes increased responsibility to promote the common good." (Earth Charter Principle 2b) This principle has a major importance for assessing the ethical challenges of climate change, as it places the main burden on the rich living in almost every nation to curb their luxury emissions coming from unparalleled levels of ownership and consumption. Stressing that greater freedom, wealth and power implies a greater responsibility for the well-being of the human family and the larger living world, this principle considers that upper class elites in many countries of the global South achieved a lifestyle that is as unsustainable as the way of life of most affluent Western societies. Principle 2 hence shows an alternative to claiming all-too-easy dichotomies between the global North and the global South and places the responsibility on those who have power and knowledge, regardless of where they may live.

Given their historic responsibility for the exploitation of large parts of the planet, however, the powerful and affluent nations need to lead by example, especially by adopting lifestyles that "emphasize the quality of life and material sufficiency in a finite world." ([Principle 8f](#)), guided by the key insight that "when basic needs have been met, human development is primarily about being more instead of having more". (Preamble)

Human solidarity is the main topic of [Principle 3](#): "Build democratic societies that are just, participatory, sustainable and peaceful", and is specified by the responsibility to "Promote social and economic justice, enabling all to achieve a secure and meaningful livelihood that is ecologically responsible" ([3b](#)) The relevance of this principle for addressing the consequences of climate change lies at hand, and is already being vigorously called for by many religious institutions, as expressed by the Working Group on Ecological Issues of the German Bishop's Conference: "The priority option for the poor, the weak, the disadvantaged and the excluded forms an essential nucleus of the Christian faith. This is why the Church – in view of the denied or threatened justice – stands up in solidarity for God's creation and for the victims of climate change, especially the poor, the old, the sick, children, the unborn and the coming generations."⁸⁵

Principle 4a is of major significance for addressing our duty to reduce our emissions to a safe level: "Recognize that the freedom of action of each generation is qualified by the needs of future generations." Currently, we are playing with the lives of our children and our children's-children: According to UNDP, we are emitting carbon dioxide at such unsustainable levels that risk using up the global budget of emissions for the 21st Century that would keep global warming within the "safe" limits of 2 °C by as early as 2032⁸⁶. Since the late 1980s, the Global Ecological Footprint has exceeded Earth's bio-capacity, as of 2003 by about 25 %⁸⁷. How we live our lives therefore becomes a moral issue as our seemingly insignificant individual actions accumulate and collectively threaten to put our climatic systems into overdrive.

Questions to consider:

- Which parts of the Holy Scripture resonate with the values of respect and care for the community of life as expressed in the Earth Charter?
- How can our religious values, traditions, rituals, and practices help us to enter into more caring, nurturing, tending, and healing relationships with ourselves, others, and the community of life?
- Which changes in my personal and our collective behaviour are necessary to make these relationships more sustainable?
- What can I / what can we do to curb my / our luxury emissions and adopt more sustainable ways of living?

II. Ecological Integrity

Principles with a special relevance to climate change:

Principles 5 to 8 focus on what needs to be done locally, nationally and internationally to protect and restore our planet's ecosystems. The term "ecological integrity" suggests that protection measures should aim for conserving the entire ecological systems and not just parts of it.

Principle 5a calls us to "adopt at all levels sustainable development plans and regulations that make environmental conservation and rehabilitation integral to all development initiatives." This principle challenges us to address one of the greatest tasks of our time: to realign our economic systems with the ecological systems that sustain them.

We need to care for Earth so that Earth can care for us. It is therefore imperative that the conservation and rehabilitation of our ecosystems will be integrated into all economic initiatives, and that we adopt sustainable development plans, rules, and regulations to protect the health of our ecosystems.

Principle 6 emphasizes that preventing harm is the best method of environmental protection and calls us to apply the precautionary principle when knowledge is limited. So even if there remains some scepticism about IPCC's proclaimed consensus among scientists about the reality of human-induced

climate change is “unequivocal”, the precautionary principle asks us to take action as a matter of prudence.

Another major guideline for framing our response to global warming is the “polluter-pays” principle as expressed in [Principle 6b](#): “make the responsible parties liable for environmental harm” and specified in 10d: “Require multinational corporations and international financial organizations to act transparently in the public good, and hold them accountable for the consequences of their activities.”

The moral argument of the polluter-pays principle has been thoughtfully advanced by the World Council of Churches, which explores adopting a statement in support of the concept of environmental debts, i.e. “debt owed by industrialized countries of the North to countries of the South on account of historical and current resource plundering, environmental degradation and the disproportionate appropriation of environmental space to dump greenhouse gases and toxic wastes.” The WCC explains that the concept “serves to counterbalance the US\$ 1.3 trillion financial debts of countries the South, pointing out that industrialized countries of the North are principal ecological debtors, while people of the South are principal ecological creditors.”

It encourages the Northern nations to:

“A. drastically reduce their greenhouse gas emissions within and beyond the United Nations framework of treaties on climate change, based on historical accountability and the principle of “common, but differentiated responsibilities” and according to fixed timelines;

B. compensate countries of the South and people for the costs of climate change mitigation and adaptation based on the “polluter-pays” principle, including through financing disaster-management programmes and investing in green technologies of the South; and

C. cancel the illegitimate financial debts being claimed from Southern countries (without reducing official development assistance) to free up resources for mitigation and adaptation.”⁸⁸

The draft statement can be downloaded at WCC’s website⁸⁹, and could be discussed in combination with Earth Charter Principle 10b that calls the international community to “relieve the developing nations of onerous international debt.”

Earth Charter [Principle 6c](#) challenges us to ‘ensure that decision making addresses the cumulative, long-term, indirect, long distance, and global consequences of human activities.’ This principle has a major significance in the context of the debate on ‘bio fuels’:

As documented in numerous studies, the initial targets of the EU to replace 10 percent of its petrol and diesel used in the transportation sector with agro fuels, as well as US plans to boost their own ethanol and biodiesel consumption to become more independent from oil has led to a new gold rush in countries like Brazil and Indonesia. The Stern report revealed that the loss of natural forests is contributing more emissions than the whole transportation sector – a finding which is truly ironic given that many clearances of pristine forests are carried out with the aim of producing alternative fuels that should help reduce the carbon emitted by cars, vehicles and transportation in general⁹⁰.

The Barcelona-based organization GRAIN states: ‘While scientists debate whether the ‘net energy balance of crops such as maize, soya, sugar cane and palm oil is positive or negative, the emissions caused by the creation of many of the agro fuels plantations send any potential benefit, literally, up in smoke’.⁹¹

And this is just the ecological dimension of the agro fuel craze: Millions of small farmers are driven off their land to make way for massive monoculture plantations that are reintroducing the colonial style of agriculture. According to GRAIN, 'between 1985 and 1996, 5,3 million people were forced off the land in Brazil, with the closure of 941,000 small and medium sized farms, and the rate of expulsion has intensified greatly over the last decade'.⁹²

As a third dimension, the demand for agro fuels is hitting home on the global food prices, leading to excesses such as the Mexican 'Tortilla Crisis' that brought thousands of Mexicans to the streets in protests after Tortilla prices have tripled or quadrupled in some parts of Mexico from summer 2006 to January 2007 and forced Mexico's President Calderon to cap the prices for corn products⁹³. Considering that the world's poorest people already spend 50 to 80 percent of their total household income on food, for many of them large increases in the prices of staple foods will mean malnutrition, hunger and, possibly, outright starvation⁹⁴.

It therefore becomes obvious that fragmented solutions based on short-term and one-sided thinking will not work. What at first sounded like a good and sane idea – replacing a percentage of the climate wracking fossil fuels used in the transportation sector with ethanol or 'biodiesel' made from plants – turned out to do more harm than good once the cumulative, long-term, indirect and global consequences were assessed.

Suggested activities:

The European Sustainable Churches Programme has developed a sophisticated system for elaborating a sustainability plan for church-based institutions. It relies on the following steps:

1. The elaboration of a vision statement geared towards sustainability that captures the aims, objectives, and the long-term vision of the programme.
2. Regular sustainability audits to take an inventory and assess the impacts of the institution's sustainability efforts, including heating, energy and water consumption, waste production and management, the ecological impact of the detergents used for cleaning its buildings or houses of worship, as well as the social impacts of its procurement practices and its policies for protecting the interests of its staff.
3. An improvement programme derived from the vision statement and the sustainability audit that indicates clear targets, timelines and responsibilities for reducing the ecological and social impacts of the institution. footprint of the congregation, and improving the congregation's sustainability efforts through
4. An integrated sustainability management system that embeds the aspects of sustainability into structures, processes, training and communication.
5. A standardised and validated sustainability report that includes:
 - An assessment of all social, economic and environmental issues that were addressed in the programme;
 - A summary of captured figures on pollution emissions, waste generation, consumption of raw material, energy and water, and noise;
 - A presentation of the institution's sustainability policy, programmes and management system;
 - The expected deadline for the next report;

6. Regular controlling by means of internal and external audits.

More information in English and German can be found on the website of KATE, Kontaktstelle für Umwelt und Entwicklung <http://www.kate-stuttgart.org/>, where detailed check-lists for the introduction process, the economic, environmental and social sustainability assessment can be downloaded and further background materials are free to order. Congregations that are new to the topic are encouraged to start with an ecological audit first and add a sustainability cycle later when first experiences have been gained.

III. Social and Economic Justice

Principles with special relevance to climate change

Part three of the Earth Charter addresses the basic requirements of social and economic justice, and defines the eradication of poverty as an “ethical, social, and environmental imperative” (Principle 9). These principles framed in a language of human rights.

Principle 9a challenges national governments and the international community to “guarantee the right to potable water, clean air, food security, uncontaminated soil, shelter, and safe sanitation” and urges the international community to their utmost for “allocating the national and international resources required.”

Principle 12 goes beyond the current status of international human rights law and articulates a right to a healthy natural environment (“the right of all, without discrimination, to a natural and social environment supportive of human dignity, bodily health, and spiritual well-being”);

Principle 9c expresses the call to serve the poor and vulnerable that can be found in the moral orientations of most, if not all, of the world’s religious traditions: “Recognize the ignored, protect the vulnerable, serve those who suffer, and enable them to develop their capacities and to pursue their aspirations.”

Principle 10b calls the international community to “enhance the intellectual, financial, technical, and social resources of developing nations, and relieve them of onerous international debt.” This goal becomes extremely relevant in the context of increasing developing nation’s capacities for adaptive management and planning in face of imminent climate threats and risks. As Desmond Tutu puts it: “No community with a sense of justice, compassion, or respect for basic human rights should accept the current pattern of adaptation. Leaving the world’s poor to sink or swim with their own meagre resources in the face of the threat posed by climate change is morally wrong.”⁹⁵ Adaptation to climate change needs to be brought to the heart of the international poverty agenda, and also needs to be given adequate attention in the negotiations of a new legally binding climate change agreement.

Principle 11 sheds light on another underrepresented issue in the current debate on climate change, namely the disproportionate impacts of climate change on women’s well-being. As the State of the World Report 2009 argues, climate change and gender inequality are inextricably interlinked⁹⁶:

“Approximately 70 percent of the people who live on less than \$1 a day are women. In general, women tend to have more limited access to the assets – physical, financial, human, social, and natural capital – that would enhance their capacity to adapt to climate change, such as land, credit, decision-making bodies, agricultural inputs, technology, and extension and training services.⁹⁷” Increased drought and water shortage may jeopardize poor families’ livelihoods and puts their capacity to send their girls to school at direct risk. Malaria epidemics and other climate related vector-borne diseases also have disproportionate effects on women as they tend to have less access to medical services than men. An estimated 10,000 women in the tropical areas of Africa and 200,000 of their infants die as a result of malaria infection during pregnancy⁹⁸.

In December 2007, the Global Gender and Climate Alliance (GGCA) was created by the UN Development Programme, the World Conservation Union IUCN, the UN Environment Programme and the Women’s Environment and Development Organization to include gender issues into existing climate change policy-making and initiatives. In March 2009, GGCA launched a Training Manual on Gender and Climate Change that gives nuanced suggestions for gender mainstreaming in adaptation, mitigation, technology transfer, and climate change financing mechanisms, and includes several assignments for activities and group discussions⁹⁹.

Principle 12 urges the international community to pay special attention to the rights of indigenous peoples and minorities, as stated in **Principle 12b**: “Affirm the right of indigenous peoples to their spirituality, knowledge, lands, and resources and to their related practices of sustainable livelihood”. This principle has a special relevance for relying on traditional knowledge in coping with climate change. Due to their dependence upon the environment and its resources, indigenous peoples are at the forefront of climate change. Indigenous communities and indigenous women in particular, often know a range of “coping strategies” that are traditionally used to manage climate variability¹⁰⁰.

The Tebtebba Indigenous People’s International Center for Policy Research and Education based in The Philippines released a Guide on Climate Change and Indigenous Peoples that provides detailed background information on how climate change is affecting indigenous communities, how traditional knowledge could lead the way in the international adaptation measures, and to suggest action steps for policy makers to be more inclusive of indigenous people’s perspectives and concerns¹⁰¹. On its website, the Tebtebba Foundation posts the latest news, statements and reports on climate change and indigenous issues, and also highlights online petitions and e-mail alerts that can be signed to support indigenous peoples in their struggle to protect their native lands and territories.

Suggested activities:

- Promote the recognition that climate change is a global relief and development issue and make sure that care for the poor and most vulnerable will be put into the forefront of mitigation and adaptation policies
- If possible, donate to programmes that help to mitigate your contributions to climate change, and help people overseas adapt to its consequences
- Urge your elected officials to design an new, binding international climate agreement that will
 - Recognize the developed countries’ historical responsibility for accumulated carbon emissions,
 - Include a priority option for those who are most affected by the adverse effects of climate change,

- Provide adequate international support for enhancing developing countries' capacities to adapt to the increased climate risks and challenges and to mitigate their domestic emissions,
- Incorporate the principles of gender equity and equality on all levels,
- Recognize the importance of traditional knowledge and practices shared by indigenous people,
- Adopt a rights-based conservation strategy that enforces indigenous land rights and promotes peoples' sovereignty and public ownership over energy, forests, seeds, land, and water.

IV. Non-Violence, Democracy, and Peace

Principles with a special relevance to climate change

Part four of the Earth Charter presents values and principles concerning democracy, nonviolence, and peace. As water supplies and habitable land is getting scarcer due to climate change, the risk of violent conflict rises. The drought that is affecting Kenya shows that this risk is real: In September 2009, a fight over land and water erupted between two tribes of herders, leaving more than 30 people dead¹⁰². If climate change increases as predicted and flooded or parched countries may lead to massive movements of migration, this could happen on a much larger scale. The goals and principles formulated in Part four of the Earth Charter are aimed at creating a sound and lasting culture of peace that may help to prevent such climate wars from erupting.

On June 3, 2009, the United Nations General Assembly passed by consensus a draft resolution put forth by the Pacific Small Islands Developing States that states that the 192-member General Assembly was "deeply concerned that the adverse impacts of climate change, including sea-level rise, could have possible security implications"¹⁰³. The resolution also called on the Secretary-General to prepare a comprehensive report on these security implications based on the views of member states and international organizations. This report has been published on September 11, 2009¹⁰⁴. The report asserts that climate change is "often viewed as a 'threat multiplier' – exacerbating threats caused by persistent poverty, weak institutions for resource management and conflict resolution, fault lines and a history of mistrust between communities and nations, and inadequate access to information and resources"¹⁰⁵. Against this background, the report identifies several "threat minimisers" that help lower the risk of climate-related insecurity. Among these, the report lists several items expressed in the Earth Charter, including "economic development, democratic governance and strong local and national institutions, international cooperation, preventive diplomacy and mediation, timely availability of information and increased support for research and analysis to improve the understanding of linkages between climate change and security".

Principle 13 a affirms the "right of everyone to receive clear and timely information on environmental matters and all development plans and activities which are likely to affect them". This principle is especially relevant for people living in disaster prone areas such as low-lying river deltas that are likely to be hit in case of flooding. The findings of climate research must be made public, and needs to be revealed to the ones that are most likely to be affected.

Principle 13 b promotes the "meaningful participation of all interested individuals and organizations in decision making." This bears a special relevance for the climate negotiations in which the governments of the world are deciding about the fate of present and future generations. The Church of Sweden's

climate expert Henrik Grape proposed that at all climate change negotiations, three empty chairs should be symbolically added, representing the poor, future generations, and creation itself. It is a special responsibility of the Churches and the interfaith community to speak out in favour of these unrepresented groups.

Principle 13 d calls for instituting “effective and efficient access to administrative and judicial procedures, including remedies and redress for environmental harm or the threat of such harm.” How would this principle apply to the case of the Vasuvatu or other Pacific Island States that are threatened by rising sea levels and could therefore disappear over the next thirty years? Who will pay for the damage and compensate the refugees of tomorrow for the loss of their homelands? These questions reveal some of the blind spots in international law. Experts from Hamburg, Germany, however, have analysed existing climate change treaties and international customary law and came to the conclusion that “despite remaining gaps and legal as well as factual problems, there will be a general obligation of industrialized nations under international law to compensate developing nations for damage resulting from anthropogenic climate change.”¹⁰⁶ It will require increased public pressure on OECD governments to meet this obligation and start compensating developing countries for the environmental harm that has been caused.

Principle 15 reveals a climate change driver that has been neglected so far in the public debate, which is the production and consumption of meat. During 2007, an estimated 276 million tons of meat was consumed globally¹⁰⁷. For producing this much meat, approximately 56 billion land animals are being slaughtered for human consumption each year¹⁰⁸. Raising the livestock for this meat accounts for almost 20 % of the global greenhouse gas emissions, which is more than the whole transportation sector is contributing to the atmospheric greenhouse gas concentrations¹⁰⁹. According to the WWF, a third of the Earth’s ecological regions are endangered by livestock production as the sheer quantity of animals raised for human consumption have come to threaten biodiversity. Livestock now makes up a fifth of all terrestrial animal biomass. Besides, 672 million tons of grain are devoted to livestock feed each year. Imagine if these grains could be used to feed the hungry instead.

Luckily, an increasing number of religious leaders such as the XVIIth Gyalwang Karmapa are promoting a vegetarian diet. While meat consumption was a common element of the Tibetan culture and tradition, the Karmapa advised all his monasteries and Centers to become vegetarian. During the 2007 Kagyu Mönlam, the annual Great Prayer Festival that assembles thousands of monks, nuns and lay practitioners in Bodh Gaya, India, he explained how the consumption of meat was incompatible with the essential Buddhist vow of striving for the liberation of all beings.

He instructed that

- No further meat is to be prepared in the kitchen of any Kagyu Monastery and Center
- No one of his followers is to be involved in the business of buying and selling meat
- There is to be no killing of animals on Kagyu premises

He then asked his followers in the audience to raise their arms if they would be ready to follow his example of giving up meat for the benefit of all sentient beings. He concluded his discourse with the statement: “Any monastery that belongs to Kamptsang Kagyu, the monastery kitchen cannot and should not make any food with meat. And if you bring meat and cook it in the monastery kitchen then that means that you are not taking me as your teacher, you are not belonging to Karma Kagyu. And there is nothing to discuss about that.”¹¹⁰

His example shows the significant influence a religious leader may have on his followers and disciples, and how he can influence them to take practical steps to lighten the load the Earth already carries.

Principle 16 b calls on the international community to “implement comprehensive strategies to prevent violent conflict and use collaborative problem solving to manage and resolve environmental conflicts and other disputes.” As the risk of climate related conflicts rises, these peaceful measures become increasingly important.

Finally, Principle 16 f encourages us to embrace a holistic understanding of peace, created by “right relationships with oneself, other persons, other cultures, other life, Earth, and the larger whole of which we are a part.” This comprehensive definition of peace is inspired by the notion of Shalom, understood as “the wholeness of right relations with the goodness of creation.”¹¹¹ If we indeed strive for more harmonious relationships with ourselves and the world around us, this may help us address the massive challenges of climate change with a positive vision of faith and hope, and stand strong in case the situation aggravates.

Suggestions for Action:

- Encourage prayer and thoughtful consideration of the connections between climate change and violent conflicts,
- Help to strengthen the “risk minimisers” identified in the UN Report on the security implications of climate change,
- Study how your personal food choices contribute to climate change, and start “eating lower down the food chain”,
- Encourage and support mutual understanding, solidarity, and cooperation among all peoples as a solid foundation for peaceful conflict management.

Practical Guidelines for using the Earth Charter methodology

What are the appropriate steps for religious institutions to take in their efforts against global warming at a level that is commensurate with the depth and complexity of the challenge we are facing?

A first step would be to use the above stated methodology to gain a clear perception of the deeper challenges and choices that we are dealing with:

- A reflection of this kind should start with an assessment of our planetary situation at this critical moment of Earth history, infused by a thorough analysis of the social and ecological teachings of our religious scriptures. What do our sacred texts say about our purpose as human beings? How do they define the good life? What are our obligations towards humankind and other kind? How do our religious scriptures relate to the comprehensive cosmological vision presented by modern science as expressed in the Earth Charter? Where are the gaps and challenges?
- The second step of this reflection process is then to take a thorough look into the drivers and root causes of the challenges we are facing. This part of the process should be informed by the insights of environmental science that reveal to us that the challenges we are facing are interconnected and systemic. What do our religious scriptures say about the values of human greed, the will for domination and the violence against humans and nature that dominate modern life and culture? How can our sacred texts help us to formulate alternative visions to the modern religions of consumerism and materialism? How can we take in the massiveness and complexity of the challenge without feeling overwhelmed and disempowered?
- The third step is to reflect on inclusive responses to be taken. Here, the inclusive ethical vision of the Earth Charter could help us to frame the discussion. How can the foundations of our religious faiths help us to move from denial to action and generate the “renewable energy of hope” needed to unleash the immense resources of human imagination, compassion and the power of dignity? What can we do as individuals to become active agents of change and how can our religious institutions help bringing forth sustainable communities founded on respect for nature, universal human rights, economic justice and a culture of peace?

The workshop facilitators should give the group reasonable time to go through each of these three steps. A video on climate change, such as parts of Al Gore’s *Inconvenient Truth*, *Interfaith Power and Light*’s video’s “*Lighten Up*” or “*Renewal*” could be shown as an introduction¹¹².

A brief presentation on the Earth Charter could follow. Depending on the timeframe of the workshop and the number of participants, the group could then split up into small groups to discuss the different questions. The last step – framing inclusive solutions should be discussed in the plenary.

In all parts of the reflection process, prayers, songs, poems, and minutes of silence should be included to help participants to reflect deeply and holistically on the topics that are being discussed. In addition, these elements may allow participants to re-ignite their spirituality that may give substance and strength to the processes of transformation; repentance and healing that are so urgently required. Long lasting solutions will depend on our ability to inspire reverence, gratitude, repentance, and humility – to the benefit of all forms of life on this planet.

Appendix

An Earth Charter – A Spiritual Perspective – formulated by the International Communities for the Renewal of Earth (ICRE), in a process of intense interreligious consultations in 1991:

Preamble

I am because we are.

We have forgotten who we are
We have lost our sense of wonder
We have degraded the Earth
We have exploited our fellow creatures

And we have nowhere else to go.

In our ignorance we have disrupted the balance of life. Now the air we breathe hurts us and the water we drink poisons us.

All things are bound together:

If we lose the sweetness of the waters,
we lose the life of the land;
If we lose the life of the land,
we lose the majesty of the forest;
If we lose the majesty of the forest,
we lose the purity of the air;
If we lose the purity of the air,
we lose the creatures of the Earth;

Not just for ourselves but for
our children – now and in the future.

But a new spirit is being born, a new awareness of
our place in this delicate balance. This spirit calls us to:

- a transformation of our hearts and minds
- concrete changes in our way of life
- the renewal of our religions
- the creation of a global society

Today:

We remember who we are
We reclaim our sense of wonder
We acknowledge our responsibility
We commit ourselves to the Earth

We turn toward each other in friendship
We turn again together towards home.

The Earth Charter, final version, full text

P R E A M B L E

We stand at a critical moment in Earth's history, a time when humanity must choose its future. As the world becomes increasingly interdependent and fragile, the future at once holds great peril and great promise. To move forward we must recognize that in the midst of a magnificent diversity of cultures and life forms we are one human family and one Earth community with a common destiny. We must join together to bring forth a sustainable global society founded on respect for nature, universal human rights, economic justice, and a culture of peace. Towards this end, it is imperative that we, the peoples of Earth, declare our responsibility to one another, to the greater community of life, and to future generations.

Earth, Our Home

Humanity is part of a vast evolving universe. Earth, our home, is alive with a unique community of life. The forces of nature make existence a demanding and uncertain adventure, but Earth has provided the conditions essential to life's evolution. The resilience of the community of life and the well-being of humanity depend upon preserving a healthy biosphere with all its ecological systems, a rich variety of plants and animals, fertile soils, pure waters, and clean air. The global environment with its finite resources is a common concern of all peoples. The protection of Earth's vitality, diversity, and beauty is a sacred trust.

The Global Situation

The dominant patterns of production and consumption are causing environmental devastation, the depletion of resources, and a massive extinction of species. Communities are being undermined. The benefits of development are not shared equitably and the gap between rich and poor is widening. Injustice, poverty, ignorance, and violent conflict are widespread and the cause of great suffering. An unprecedented rise in human population has overburdened ecological and social systems. The foundations of global security are threatened. These trends are perilous—but not inevitable.

The Challenges Ahead

The choice is ours: form a global partnership to care for Earth and one another or risk the destruction of ourselves and the diversity of life. Fundamental changes are needed in our values, institutions, and ways of living. We must realize that when basic needs have been met, human development is primarily about being more, not having more. We have the knowledge and technology to provide for all and to reduce our impacts on the environment. The emergence of a global civil society is creating new opportunities to build a democratic and humane world. Our environmental, economic, political, social, and spiritual challenges are interconnected, and together we can forge inclusive solutions.

Universal Responsibility

To realize these aspirations, we must decide to live with a sense of universal responsibility, identifying ourselves with the whole Earth community as well as our local communities. We are at once citizens of different nations and of one world in which the local and global are linked. Everyone shares responsibility for the present and future well-being of the human family and the larger living world. The spirit of human solidarity and kinship with all life is strengthened when we live with reverence for the mystery of being, gratitude for the gift of life, and humility regarding the human place in nature.

We urgently need a shared vision of basic values to provide an ethical foundation for the emerging world community. Therefore, together in hope we affirm the following interdependent principles for a sustainable way of life as a common standard by which the conduct of all individuals, organizations, businesses, governments, and transnational institutions is to be guided and assessed.

P R I N C I P L E S

I. RESPECT AND CARE FOR THE COMMUNITY OF LIFE

1. Respect Earth and life in all its diversity.
 - a. Recognize that all beings are interdependent and every form of life has value regardless of its worth to human beings.
 - b. Affirm faith in the inherent dignity of all human beings and in the intellectual, artistic, ethical, and spiritual potential of humanity.
2. Care for the community of life with understanding, compassion, and love.
 - a. Accept that with the right to own, manage, and use natural resources comes the duty to prevent environmental harm and to protect the rights of people.
 - b. Affirm that with increased freedom, knowledge, and power comes increased responsibility to promote the common good.

3. Build democratic societies that are just, participatory, sustainable, and peaceful.
 - a. Ensure that communities at all levels guarantee human rights and fundamental freedoms and provide everyone an opportunity to realize his or her full potential.
 - b. Promote social and economic justice, enabling all to achieve a secure and meaningful livelihood that is ecologically responsible.
4. Secure Earth's bounty and beauty for present and future generations.
 - a. Recognize that the freedom of action of each generation is qualified by the needs of future generations.
 - b. Transmit to future generations values, traditions, and institutions that support the long-term flourishing of Earth's human and ecological communities.

In order to fulfill these four broad commitments, it is necessary to:

II. ECOLOGICAL INTEGRITY

5. Protect and restore the integrity of Earth's ecological systems, with special concern for biological diversity and the natural processes that sustain life.
 - a. Adopt at all levels sustainable development plans and regulations that make environmental conservation and rehabilitation integral to all development initiatives.
 - b. Establish and safeguard viable nature and biosphere reserves, including wild lands and marine areas, to protect Earth's life support systems, maintain biodiversity, and preserve our natural heritage.
 - c. Promote the recovery of endangered species and ecosystems.
 - d. Control and eradicate non-native or genetically modified organisms harmful to native species and the environment, and prevent introduction of such harmful organisms.
 - e. Manage the use of renewable resources such as water, soil, forest products, and marine life in ways that do not exceed rates of regeneration and that protect the health of ecosystems.
 - f. Manage the extraction and use of non-renewable resources such as minerals and fossil fuels in ways that minimize depletion and cause no serious environmental damage.
6. Prevent harm as the best method of environmental protection and, when knowledge is limited, apply a precautionary approach.
 - a. Take action to avoid the possibility of serious or irreversible environmental harm even when scientific knowledge is incomplete or inconclusive.
 - b. Place the burden of proof on those who argue that a proposed activity will not cause significant harm, and make the responsible parties liable for environmental harm.
 - c. Ensure that decision making addresses the cumulative, long-term, indirect, long distance, and global consequences of human activities.
 - d. Prevent pollution of any part of the environment and allow no build-up of radioactive, toxic, or other hazardous substances.
 - e. Avoid military activities damaging to the environment.
7. Adopt patterns of production, consumption, and reproduction that safeguard Earth's regenerative capacities, human rights, and community well-being.
 - a. Reduce, reuse, and recycle the materials used in production and consumption systems, and ensure that residual waste can be assimilated by ecological systems.
 - b. Act with restraint and efficiency when using energy, and rely increasingly on renewable energy sources such as solar and wind.
 - c. Promote the development, adoption, and equitable transfer of environmentally sound technologies.
 - d. Internalize the full environmental and social costs of goods and services in the selling price, and enable consumers to identify products that meet the highest social and environmental standards.
 - e. Ensure universal access to health care that fosters reproductive health and responsible reproduction.
 - f. Adopt lifestyles that emphasize the quality of life and material sufficiency in a finite world.
8. Advance the study of ecological sustainability and promote the open exchange and wide application of the knowledge acquired.
 - a. Support international scientific and technical cooperation on sustainability, with special attention to the needs of developing nations.
 - b. Recognize and preserve the traditional knowledge and spiritual wisdom in all cultures that contribute to environmental protection and human well-being.
 - c. Ensure that information of vital importance to human health and environmental protection, including genetic information, remains available in the public domain.

III. SOCIAL AND ECONOMIC JUSTICE

9. Eradicate poverty as an ethical, social, and environmental imperative.
 - a. Guarantee the right to potable water, clean air, food security, uncontaminated soil, shelter, and safe sanitation, allocating the national and international resources required.
 - b. Empower every human being with the education and resources to secure a sustainable livelihood, and provide social security and safety nets for those who are unable to support themselves.
 - c. Recognize the ignored, protect the vulnerable, serve those who suffer, and enable them to develop their capacities and to pursue their aspirations.

10. Ensure that economic activities and institutions at all levels promote human development in an equitable and sustainable manner.
 - a. Promote the equitable distribution of wealth within nations and among nations.
 - b. Enhance the intellectual, financial, technical, and social resources of developing nations, and relieve them of onerous international debt.
 - c. Ensure that all trade supports sustainable resource use, environmental protection, and progressive labor standards.
 - d. Require multinational corporations and international financial organizations to act transparently in the public good, and hold them accountable for the consequences of their activities.
11. Affirm gender equality and equity as prerequisites to sustainable development and ensure universal access to education, health care, and economic opportunity.
 - a. Secure the human rights of women and girls and end all violence against them.
 - b. Promote the active participation of women in all aspects of economic, political, civil, social, and cultural life as full and equal partners, decision makers, leaders, and beneficiaries.
 - c. Strengthen families and ensure the safety and loving nurture of all family members.
12. Uphold the right of all, without discrimination, to a natural and social environment supportive of human dignity, bodily health, and spiritual well-being, with special attention to the rights of indigenous peoples and minorities.
 - a. Eliminate discrimination in all its forms, such as that based on race, color, sex, sexual orientation, religion, language, and national, ethnic or social origin.
 - b. Affirm the right of indigenous peoples to their spirituality, knowledge, lands and resources and to their related practice of sustainable livelihoods.
 - c. Honor and support the young people of our communities, enabling them to fulfill their essential role in creating sustainable societies.
 - d. Protect and restore outstanding places of cultural and spiritual significance.

IV. DEMOCRACY, NONVIOLENCE, AND PEACE

13. Strengthen democratic institutions at all levels, and provide transparency and accountability in governance, inclusive participation in decision making, and access to justice.
 - a. Uphold the right of everyone to receive clear and timely information on environmental matters and all development plans and activities which are likely to affect them or in which they have an interest.
 - b. Support local, regional and global civil society, and promote the meaningful participation of all interested individuals and organizations in decision making.
 - c. Protect the rights to freedom of opinion, expression, peaceful assembly, association, and dissent.
 - d. Institute effective and efficient access to administrative and independent judicial procedures, including remedies and redress for environmental harm and the threat of such harm.
 - e. Eliminate corruption in all public and private institutions.
 - f. Strengthen local communities, enabling them to care for their environments, and assign environmental responsibilities to the levels of government where they can be carried out most effectively.
14. Integrate into formal education and life-long learning the knowledge, values, and skills needed for a sustainable way of life.
 - a. Provide all, especially children and youth, with educational opportunities that empower them to contribute actively to sustainable development.
 - b. Promote the contribution of the arts and humanities as well as the sciences in sustainability education.
 - c. Enhance the role of the mass media in raising awareness of ecological and social challenges.
 - d. Recognize the importance of moral and spiritual education for sustainable living.
15. Treat all living beings with respect and consideration.
 - a. Prevent cruelty to animals kept in human societies and protect them from suffering.
 - b. Protect wild animals from methods of hunting, trapping, and fishing that cause extreme, prolonged, or avoidable suffering.
 - c. Avoid or eliminate to the full extent possible the taking or destruction of non-targeted species.
16. Promote a culture of tolerance, nonviolence, and peace.
 - a. Encourage and support mutual understanding, solidarity, and cooperation among all peoples and within and among nations.
 - b. Implement comprehensive strategies to prevent violent conflict and use collaborative problem solving to manage and resolve environmental conflicts and other disputes.
 - c. Demilitarize national security systems to the level of a non-provocative defense posture, and convert military resources to peaceful purposes, including ecological restoration.
 - d. Eliminate nuclear, biological, and toxic weapons and other weapons of mass destruction.
 - e. Ensure that the use of orbital and outer space supports environmental protection and peace.
 - f. Recognize that peace is the wholeness created by right relationships with oneself, other persons, other cultures, other life, Earth, and the larger whole of which all are a part.

THE WAY FORWARD

As never before in history, common destiny beckons us to seek a new beginning. Such renewal is the promise of these Earth Charter principles. To fulfill this promise, we must commit ourselves to adopt and promote the values and objectives of the Charter.

This requires a change of mind and heart. It requires a new sense of global interdependence and universal responsibility. We must imaginatively develop and apply the vision of a sustainable way of life locally, nationally, regionally, and globally. Our cultural diversity is a precious heritage and different cultures will find their own distinctive ways to realize the vision. We must deepen and expand the global dialogue that generated the Earth Charter, for we have much to learn from the ongoing collaborative search for truth and wisdom.

Life often involves tensions between important values. This can mean difficult choices. However, we must find ways to harmonize diversity with unity, the exercise of freedom with the common good, short-term objectives with long-term goals. Every individual, family, organization, and community has a vital role to play. The arts, sciences, religions, educational institutions, media, businesses, nongovernmental organizations, and governments are all called to offer creative leadership. The partnership of government, civil society, and business is essential for effective governance.

In order to build a sustainable global community, the nations of the world must renew their commitment to the United Nations, fulfill their obligations under existing international agreements, and support the implementation of Earth Charter principles with an international legally binding instrument on environment and development.

Let ours be a time remembered for the awakening of a new reverence for life, the firm resolve to achieve sustainability, the quickening of the struggle for justice and peace, and the joyful celebration of life.

- Find out more information about the Earth Charter at www.earthcharter.org

Endnotes

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