1. Ethical Resources

But let justice roll down like waters,
and righteousness like an ever-flowing stream.

Amos 5:24

In the end, without environmental stewardship, there can be no sustainable prosperity and no sustainable social justice.

Gordon Brown
Prime Minister of the United Kingdom[1]

As we have seen, global warming and related climate change pose grave dangers to human communities and the planet as a whole. Christians in the World Council of Churches (WCC) have been wrestling with the nexus between social justice and environmental issues for decades. In fact, it was the WCC that elevated the concept of sustainability to a social norm when it challenged its members and the international community in 1974 to create a "just, participatory, and sustainable society."[2] In ethics, norms like "do no harm" and "love your neighbor" are general ethical guidelines for moral behavior. While most Christian moral norms are drawn from the Bible, they

have also been developed from Christian theology, the moral wisdom acquired through experience, and important scientific findings discovered through God's gift of reason.

Justice and Environmental Issues

Faced with the prospects for nuclear war, rapid population growth, deepening poverty, and growing environmental degradation, members of the WCC began in the 1970s to consult the sources of scripture, tradition, reason, and experience to develop various ethical resources to grapple with complicated and interconnected problems related to social justice and environmental well-being. In 1979, a WCC conference on "Faith, Science and the Future" identified and gave explicit attention to four moral norms: sustainability, sufficiency, participation, and solidarity.[3] In 1983, the sixth assembly of the WCC encouraged all of its member communions to use these norms in their pursuit of "justice, peace, and the integrity of creation."

In 1984, with its publication of *Accelerated Climate Change: Sign of Peril, Test of Faith,* the WCC became one of the first organizations in the world to call attention to the dangers of global warming.[4] This study demanded an integrated and twofold response. First, it distinguished between "the luxury emissions of the rich" and the "survival emissions of the poor." It emphasized that social justice is key to any strategy to combat climate change. Second, it noted that related environmental problems reveal that nature has become a "co-victim with the poor." The statement declared, "Earth and people will be liberated to thrive together, or not at all." Quite presciently, the WCC also emphasized, "*We must not allow either the immensity or the uncertainty pertaining to climate change and other problems to erode further the solidarity binding humans to one another and to other life.*"[5]

Some of the participants in these WCC conversations were also engaged in ethical reflection about various policy issues in their own countries. Presbyterians in the United States addressed issues related to energy policy in a comprehensive policy statement adopted in 1981, *The Power to Speak Truth to Power.*[6] This important social policy statement promoted an "ethic of ecological justice" that attempted to unite in one broad scope of moral concern the ethical obligations Christians have to present and future generations, as well as to all human

and natural communities. Four norms rooted in Scripture and Christian theology were identified as central to this ethic: justice, sustainability, sufficiency, and participation.

The ethic of ecological justice and its related norms were developed further a decade later in 1990, when the Presbyterian Church (U.S.A.) (PCUSA) approved a major study on environmental policy entitled *Restoring Creation for Ecology and Justice*.[7] This study recast the norm of justice in terms of solidarity and honed the application of the other norms to environmental issues. As new scientific studies further confirmed the phenomenon of global warming, and as the prospects grew for a second war in oil-rich Iraq, delegates at the PCUSA's 214th General Assembly in 2002 approved a proposal to revise the 1981 statement on U.S. energy policy.[8] In 2008, the PCUSA's 218th General Assembly approved *The Power to Change: U.S. Energy Policy and Global Warming*.[9] The document utilized the ethic of ecological justice and the related moral norms of sustainability, sufficiency, participation, and solidarity to assess U.S. energy options and to formulate related policy recommendations.

The Evangelical Lutheran Church in America (ELCA) drew, in part, on the work of the WCC and the PCUSA as it developed a series of social statements on various issues beginning in the early 1990s. The ELCA's statement on environmental issues in 1993 emphasized that justice "means honoring the integrity of creation, and striving for fairness within the human family." It also called on members of the ELCA to "answer the call to justice and commit ourselves to its principles—participation, solidarity, sufficiency, and sustainability."[10] All four of these principles are referred to in the ELCA's 1995 statement on peace issues and also in the ELCA's 1999 statement on economic justice issues.[11] These four principles are also referred to explicitly in a draft social statement on genetics that is scheduled for action by the ELCA's Churchwide Assembly in 2011.[12] This study claims, "These four principles could be said to articulate a core ethics of 'faith active in love through justice' for ELCA social policy."[13]

While the ELCA has utilized the four dimensions of justice that emerged from WCC discussions in the 1970s, the National Council of Churches of Christ has developed the notion of an ethic of ecological justice that emerged from reflection on U.S. energy policy among Presbyterians in the 1980s. Today the council's "Eco-Justice Program" enables "national bodies of member Protestant and Orthodox

denominations to work together to protect and restore God's Creation." The program defines ecojustice as "all ministries designed to heal and defend creation, working to assure justice for all of creation and the human beings who live in it."[14]

This book uses the ethic of ecological justice and its related moral norms to conduct an ethical assessment of energy options and climate policy proposals. These resources offer a sophisticated ethic to grapple with social and environmental issues that are intertwined. They also offer a common moral vocabulary with which to engage in ethical reflection and public discourse about various energy and climate policy proposals. The remainder of this chapter explores the concept of ecojustice in greater detail and traces the biblical and theological foundations for sustainability, sufficiency, participation, and solidarity in Jewish and Christian traditions. The chapter concludes by identifying additional guidelines that will further enable ethical assessments of energy options and climate policy proposals.

The Ethic of Ecological Justice

The ethic of ecological justice is a biblical, theological, and tradition-based ethic that emphasizes four moral norms: sustainability, sufficiency, participation, and solidarity.[15] This ethic addresses human-caused problems that threaten both human and natural communities and considers both human and natural communities to be ethically important. The word *ecological* lifts up moral concern about other species and their habitats; the word *justice* points to the distinctly human realm and human relationships to the natural order.

Justice

The norm of justice used in the title of this ethical perspective is an inclusive concept. Its full meaning is given greater specificity by the four norms of sustainability, sufficiency, participation, and solidarity. Justice is, however, a norm in its own right with a distinct history in Christian ethics and Western philosophy. In Christian traditions, justice is rooted in the very being of God. It is an essential part of God's community of love and calls human beings to make fairness the touchstone of social relations and relations to other species and ecosystems. Justice is not the love of Christ (*agape*). Justice involves

a calculation of interests. Justice has a more impersonal quality than love, because social groups are more its subject than individuals. Nevertheless, justice divorced from love easily deteriorates into a mere calculation of interests and finally into a cynical balancing of interest against interest. Without love inspiring justice, societies lack the push and pull of care and compassion to move them to higher levels of fairness. Love forces recognition of the needs of others. Love judges abuses of justice. Love lends passion to justice. Justice, in short, is love worked out in arenas where the needs of each individual are impossible to know.

The biblical basis for justice with its special sensitivity for the poor starts with God's liberation of the poor and oppressed slaves in Egypt and the establishment of a covenant, one of whose cardinal features is righteousness (Exodus 22:21-24). The biblical basis continues in the prophetic reinterpretation of the covenant. Micah summarized the law: "to do justice, and to love kindness, and to walk humbly with your God" (Micah 6:8). Amos was adamant that God's wrath befell Israel for its unrighteousness. Important for Amos among the transgressions of Israel were injustice and the failure to care for the poor (Amos 2:6; 8:4-8; 5:11). Isaiah and Jeremiah were no different (Isaiah 10:1-2; Jeremiah 22:13-17).

In the Christian scriptures, the emphasis on justice is muted in comparison to that of the prophets, but the concern for the poor may be even stronger. Jesus himself was a poor man from a poor part of Israel. His mission was among the poor and directed to them (Luke 4:16-20). He blessed the poor and spoke God's judgment on the rich (Luke 6:20-26; Matthew 5:1-14).

The early church carried this tradition beyond the time of Jesus. Paul's concern is frequently for the weak members of the community. This is his concern as he addresses a question that now seems quaint: eating meat sacrificed to idols (1 Corinthians 8). He affirms the new freedom in faith that is one important foundation for political freedom. Freedom is not, however, a license to ignore or prosecute the weak in the pursuit of one's own consumption.

Paul is even more emphatic on equality, which with freedom is the backbone of the modern concept of justice. His statement on the ideals of freedom and equality are among the strongest in the entire biblical witness (Galatians 3:28). His commitment to freedom and equality is in no way diminished by his more conservative interpretations

in actual situations where he may have felt the need to moderate his ideals for the sake of community harmony. Thus, while Paul seems to advise an inferior role for women (1 Corinthians 14:34-36) and urges the slave to return to his master (Philemon), his ringing affirmation of equality in Galatians has through the ages sustained Christians concerned about justice.

In the Christian community in Jerusalem (Acts 1–5), equality was apparently put into practice and also involved sharing. In this practice, these early Christians set themselves apart from the prevailing Roman culture.

For Aristotle, justice meant "treating equals equally and unequals unequally."[16] This simple statement of the norm of justice hides the complexities of determining exactly who is equal and who is not and the grounds for justifying inequality. In modern interpretations of justice, however, it leads to freedom and equality as measures of justice. It also leads to the concept of equity, which is justice in actual situations where a degree of departure from freedom and equality are permitted in the name of achieving other social goods. So, for example, most societies give mentally and physically impaired individuals extra resources and justify it in the name of greater fairness. This is a departure from equal treatment, but not from equitable treatment. The problem, of course, is that self-interested individuals and groups will always ask for departures from freedom and equality and use spurious justifications. This is one reason justice needs love as its foundation and careful scrutiny of claims for justice.

In summary, justice in Christian thought is the social and ecological expression of love and means a special concern for the poor, a rough calculation of freedom and equality, and a passion for establishing equitable relationships. The ethical aims of justice in the absence of other considerations should be to relieve the worst conditions of poverty, powerlessness, exploitation, and environmental degradation and provide for an equitable distribution of burdens and costs. The moral norms of sustainability, sufficiency, participation, and solidarity help to flesh out more fully what an ethic of ecological justice might entail.

Sustainability

Sustainability may be defined as the long-range supply of sufficient resources to meet basic human needs and the preservation of intact natural communities. It expresses a concern for future generations

and the planet as a whole, and emphasizes that an acceptable quality of life for present generations must not jeopardize the prospects for future generations.

Sustainability is basically good stewardship and is a pressing concern today because of the human degradation of nature. It embodies an ongoing view of nature and society, a view in which ancestors and posterity are seen as sharing in present decisions. The present generation takes in trust a legacy from the past with the responsibility of passing it on in better or at least no worse condition. A concern for future generations is one aspect of love and justice. Sustainability precludes a shortsighted stress on economic growth that fundamentally harms ecological systems and any form of environmentalism that ignores human needs and costs.

There are several significant biblical and theological foundations for the norm of sustainability. The doctrine of creation affirms that God as Creator sustains God's creation. The creation is also good independently of human beings (Genesis 1). It is not simply there for human use, but possesses an autonomous status in the eyes of God. The goodness of matter is later picked up in Christian understandings of the incarnation and the sacraments.[17]

Psalm 104 is a splendid hymn of praise that celebrates God's efforts at sustainability: "When you send forth your spirit . . . you renew the face of the ground" (Psalms 104:30). Similarly, Psalm 145 rejoices in the knowledge that God gives "them their food in due season" and "satisfies the desire of every living thing" (Psalms 145:15-16). The doctrine of creation also emphasizes the special vocation of humanity to assist God in the task of sustainability. In Genesis, the first creation account describes the responsibility of stewardship in terms of "dominion" (Genesis 1:28), and the second creation account refers to this task as "to till [the garden] and keep it" (Genesis 2:15). In both cases, the stress is on humanity's stewardship of *God's* creation. The parable of the Good Steward in Luke also exemplifies this perspective. The steward is not the owner of the house but manages or sustains the household so that all may be fed and have enough (Luke 12:42). The Gospels offer several other vivid metaphors of stewardship. The shepherd cares for the lost sheep. The earth is a vineyard, and humanity serves as its tenant.

The covenant theme is another important biblical and theological foundation for the norm of sustainability. The Noahic covenant (Genesis 9) celebrates God's "everlasting covenant between God and every

living creation of all flesh that is on the earth" (Genesis 9:16) The biblical writer repeats this formula several times in subsequent verses, as if to drive the point home. The text demonstrates God's concern for biodiversity and the preservation of all species.

It is the Sinai covenant, however, that may best reveal the links between the concepts of covenant and sustainability. Whereas the prior covenants with Noah and Abraham were unilateral and unconditional declarations by God, the Sinai covenant featured the reciprocal and conditional participation of humanity in the covenant: "If you obey the commandments of the Lord your God . . . then you shall live" (Deuteronomy 30:16). Each of the Ten Commandments and all of the interpretations of these commandments in the subsequent Book of the Covenant were intended to sustain the life of the people of God in harmony with the well-being of the earth (Exodus 20–24).

At the heart of the Sinai covenant rested the twin concerns for righteousness (justice) and stewardship of the earth. Likewise, the new covenant in Christ is very much linked to these twin concerns as well as to the reciprocal relation of human beings.

In Romans 8:18, the whole creation suffers and in 8:22 "groans in travail." But suffering, according to Paul, does not lead to despair: "The creation waits with eager longing for the revealing of the children of God" (Romans 8:19), and "in this hope we are saved" (Romans 8:24). Suffering, as in the suffering of Jesus Christ on the cross, points beyond to the hope that is already partially present. Part of this hope is a return to the good stewardship of Genesis 1 and 2 before the fall in Genesis 3.

Sufficiency

The norm of sufficiency emphasizes that all forms of life are entitled to share in the goods of creation. To share in the goods of creation in a Christian sense, however, does not mean unlimited consumption, hoarding, or an inequitable distribution of the earth's goods. Rather, it is defined in terms of basic needs, sharing, and equity. It repudiates wasteful and harmful consumption and encourages humility, frugality, and generosity.[18]

This norm appears in the Bible in several places. As the people of God wander in the wilderness after the exodus, God sends "enough" manna each day to sustain the community (Exodus 16:4). Moses instructs the people to "gather as much of it as each of you need" (Exodus 16:16). The norm of sufficiency is also integral to the set of

laws known as the jubilee legislation. These laws fostered stewardship of the land, care for animals and the poor, and a regular redistribution of wealth. In particular, the jubilee laws stressed the needs of the poor and wild animals to eat from fields left fallow every seven years (Exodus 23:11). All creatures were entitled to a sufficient amount of food to live.

In Christian scriptures, sufficiency is linked to abundance. Jesus says, "I came that you may have life, and have it abundantly" (John 10:10). Jesus rejects the notion, however, that the "good life" is to be found in the abundance of possessions (Luke 12:15). Instead, the good life is to be found in following Christ. Such a life results not in the hoarding of material wealth but rather in sharing it so that others may have enough. Acts 1–5 reveals that this became the model for what amounted to the first Christian community in Jerusalem. The believers distributed their possessions "as they had need" (Acts 2:45). Paul also emphasizes the relation of abundance to sufficiency: "God is able to provide you with every blessing in abundance, so that you may always have enough" (2 Corinthians 9:8).

The norm of sufficiency is also supported by biblical and theological understandings of wealth, consumption, and sharing. Two general and not altogether compatible attitudes dominate biblical writings on wealth and consumption. On the one hand, there is a qualified appreciation of wealth, and on the other, a call to freedom from possessions that sometimes borders on deep suspicion.[19] The Hebrew scriptures generally take the side of appreciating wealth, praising the rich who are just and placing a high estimate on riches gained through honest work.

Both sides are found in the teachings of Jesus. The announcement of the coming community of God carries with it a call for unparalleled righteousness, freedom from possessions, and complete trust in God. The service of God and the service of riches are incompatible (Matthew 6:24; Mark 8:36; 9:43-48; 10:17-25; Luke 12:15; 8:14; 11:18-23; 19:1-10). Jesus himself had no possessions and prodded his disciples into the renunciation of possessions and what later has been called "holy poverty," that is, poverty that is freely chosen as a way of life (Matthew 8:20; Mark 1:16; 6:8-9; Luke 9:3; 10:4).On the other side, Jesus took for granted the owning of property and was apparently supported by women of means (Luke 8:2). He urged that possessions be used to help those in need (Luke

6:30; 8:2-3; 10:38-39). He was fond of celebrations, talking often about feasts in the community of God.

The biblical witness on consumption follows much the same pattern. The basic issue has been between self-denial and contentment with a moderate level of consumption.[20] The side of self-denial evolved into the monastic movement of later ages. The way of moderation is expressed well in 1 Timothy 6:6-8: "There is great gain in godliness with contentment; for we brought nothing into the world, and cannot take anything out of the world; but if you have food and clothing, with these we shall be content."

Sharing is an implication of neighbor love, hoarding a sign of selfishness and sin. Jesus repeatedly calls his disciples to give of themselves, even to the point of giving all they have to the poor. He shares bread and wine with them at the Last Supper. Paul in several letters urges Christians elsewhere to share with those in the Jerusalem community.

Sufficiency and sustainability are linked, for what the ethic of ecological justice seeks to sustain is the material and spiritual wherewithal to satisfy the basic needs of all forms of life. They are also linked through the increasing realization that present levels of human consumption, especially in affluent countries, are more than sufficient and in many respects are unsustainable. Only an ethic and practice that stress sufficiency, frugality, and generosity will ensure a sustainable future.

Finally, the norm of sufficiency offers an excellent example of how human ethics is being extended to nature. The post–World War II stress on economic growth has been anthropocentric. Economists and politicians have been preoccupied by human sufficiency. The anthropocentric focus of most Christian traditions has reinforced this preoccupation.

With increasing environmental awareness, however, this preoccupation no longer seems appropriate. And while other species are not equipped to practice frugality or simplicity—indeed, to be ethical at all in a human sense—the norm of sufficiency does apply to humans in how they relate to other species. To care is to practice restraint. Humans should be frugal and share resources with plants and animals because they count in the eyes of God. All of creation is good and deserves ethical consideration. The focus on sufficiency is part of what it means to practice justice.

Participation

The norm of participation likewise stems from the affirmation of all forms of life and the call to justice. This affirmation and this call lead to the respect and inclusion of all forms of life in human decisions that affect their well-being. Voices should be heard, and, if creatures are not able to speak, which is the case for other species, then humans will have to represent their interests when those interests are at stake.[21] Participation is concerned with empowerment and seeks to remove the obstacles to participating in decisions that affect lives.

The norm of participation is also grounded in the two creation accounts in Genesis. These accounts emphasize the value of everything in God's creation and the duty of humans to recognize the interest of all by acting as good stewards. Through their emphasis on humanity's creation in the image of God, the writers of Genesis underline the value of human life and the equality of women and men.

The prophets brought sharp condemnation upon kings and people of Israel for violating the covenant by neglecting the interests of the poor and vulnerable. They repudiated actions that disempowered people through the loss of land, corruption, theft, slavery, and militarism. The prophets spoke for those who had no voice and could no longer participate in the decisions that affected their lives (Amos 2:6-7; Isaiah 3:2-15; Hosea 10:12-14).

With Jesus comes a new emphasis: the kingdom or community of God (Mark 1:14-15). While the community of God is not to be equated to any community of human beings, it nevertheless is related. It serves as a general model for human communities and is to some degree realizable, although never totally.

The community of God has its source in a different kind of power, God's power of love and justice. This power alone is capable of producing genuine and satisfying human communities and right relations to nature's communities. The community of God cannot be engineered. Technology, material consumption, and economic growth may enhance human power but offer little help in developing participatory communities. Reliance on these powers alone can in fact make matters worse by creating divisions.

Jesus also stressed the beginning of the community of God in small things, such as seeds that grow. He gathered a community largely of the poor and needy. He gave and found support in a small inner group of disciples. In this day of complex technologies, large

corporations that dominate globalization, and mammoth bureaucracies, Jesus' stress seems out of place to many. In their pell-mell rush to increase the size and complexity of social organizations and technological processes, humans are missing something, however. For effective community and participation, size counts and must be limited in order for individuals to have significant and satisfying contacts.

The concern for the poor evident in the Gospels is another support for the norm of participation. Without some semblance of justice, there can be little participation in community. Extremes of wealth and poverty and disproportions of power create an envious and angry underclass without a stake in the community. Equality of worth, rough equality of power, and political freedom are prerequisites for genuine communities.

In the early church, small communities flourished. The Jerusalem church, while poor, had a remarkable sense of sharing. Paul's letter to the Romans contains perhaps the most ideal statement of community ever written (Romans 12). He also talked about the church as the body of Christ. It has many members, all of whom are united in Christ. Differences between Jew and Greek, male and female, slave and free are unimportant (Galatians 3:28). He repeatedly used the Greek word *koinonia*, rich in communal connotations, to describe the house churches he established.

All this is not to romanticize the early church. There was enough conflict for us to avoid sentimentalizing the notion of participation. It is difficult—more so in industrialized societies, even with their full range of communications—to achieve participatory communities. A multitude of decisions, each requiring expert technical judgments and having wide-ranging consequences, must be made in a timely way. Popular participation in decisions, especially when there is conflict, as there is in environmental disputes, can paralyze essential processes. Expedience often results in the exclusion of certain voices and interests. Impersonal, functional ways of relating become easy and further reduce participation.

The norm of participation calls for a reversal of this trend. At minimum, it means having a voice in critical decisions that affect one's life. For environmental problems, it means having a say—for example, in the selection of energy and resource systems, the technologies these systems incorporate, and the distribution of benefits and burdens these systems create. All this implies free and open elections,

democratic forms of government, responsible economic institutions, and a substantial dose of good will.

Finally there is the difficult problem of how to bring other species and ecosystems into human decision making. In one sense, they are already included, since there is no way to exclude them. Humans are inextricably part of nature, and many human decisions have environmental consequences that automatically include other species and ecosystems. The problem is the large number of negative consequences that threaten entire species and systems and ultimately the human species, for humans are dependent on other species and functioning ecosystems. The task is to reduce and eliminate where possible these negative consequences. One reason is obviously pragmatic. Humans are fouling their own nests. Beyond this anthropocentric reason, however, it helps to see plants, animals, and their communities as having interests that humans should respect. They have a dignity of their own kind. They experience pleasure and pain. The norm of participation should be extended to include these interests and to relieve pain—in effect, to give other species a voice. Humans have an obligation to speak out for other forms of life that cannot defend themselves.

Solidarity

The norm of solidarity reinforces this inclusion as well as adding an important element to the inclusion of marginalized human beings. The norm highlights the communal nature of life in contrast to individualism and encourages individuals and groups to join in common cause with those who are victims of discrimination, abuse, and oppression. Underscoring the reciprocal relationship of individual welfare and the common good, solidarity calls for the powerful to share the plight of the powerless, for the rich to listen to the poor, and for humanity to recognize its fundamental interdependence with the rest of nature. The virtues of humility, compassion, courage, and generosity are all marks of the norm of solidarity.

Both creation accounts in Genesis emphasize the profound relationality of all of God's creation. These two accounts point to the fundamental social and ecological context of existence. Humanity was created for community. This is the foundation of solidarity. While all forms of creation are unique, they are all related to each other as part of God's creation.

Understood in this context and in relation to the concept of stewardship in the Gospels, the *imago Dei* tradition that has its origins in Genesis also serves as a foundation for solidarity. Creation in the image of God (*imago Dei*) places humans not in a position over or apart from creation but rather in the same loving relationship of God with creation. Just as God breathes life into the world (Genesis 7), humanity is given the special responsibility as God's stewards to nurture and sustain life.

In their descriptions of Jesus' life and ministry, the Gospels provide the clearest examples of compassionate solidarity. Jesus shows solidarity with the poor and oppressed; he eats with sinners, drinks from the cup of a Gentile woman, meets with outcasts, heals lepers, and consistently speaks truth to power. Recognizing that Jesus was the model of solidarity, Paul used the metaphor of the body of Christ to emphasize the continuation of this solidarity within the Christian community. Writing to the Christians in Corinth, Paul stresses that by virtue of their baptisms, they are all one "in Christ." Thus if one member suffers, all suffer together; if one member is honored, all rejoice together (1 Corinthians 12:26). It would be hard to find a better metaphor to describe the character of compassionate solidarity.

The norm of solidarity also finds its home in a theology of the cross. The cross is the central symbol in Christianity. It points to a God who works in the world not in terms of power *over* but power *in, with, and under*. This is revolutionary. It upsets normal ways of conceiving power. God suffers with all living things that groan in travail (Romans 8). In the words of Jesus, "The last shall be first, and the first shall be last" (Matthew 19:30; Mark 10:31; Luke 13:30). The one who "was in the form of God . . . emptied himself, taking the form of a servant" (Philemon 2:6-7). The implication is clear. Christians are called to suffer with each other and the rest of the creation, to change their ways, and to enter a new life of solidarity and action to preserve and protect the entire creation.

These four moral norms sketch the broad outline of an ethic of ecojustice. These norms are complemented by the following guidelines, which will be utilized in conjunction with the norms in the following chapters to engage in an ethical assessment of energy options and climate policy proposals.

Energy Policy Guidelines

Ethics involves careful, systematic reflection on moral questions. These moral questions arise in a variety of contexts from the intimacy of the home to public debates about policy questions. As I noted at the outset, Christian ethics is guided by several general moral norms, but the two that are most important are love and justice. We have explored in this chapter how various social and environmental problems have led Christian communities to develop an expanded ethic of ecological justice. It is not hard to see how the related moral norms of sustainability, sufficiency, participation, and solidarity might inform discussions about energy options and energy policy. For example, there is nothing sustainable about the world's dependency on fossil fuels, which poses grave threats to justice, peace, and the integrity of creation. The norm of sustainability urges us to find ways to live more sustainably by relying on current solar energy and the geothermal heat of the planet. The moral norm of sufficiency, however, reminds us that access to energy supplies is one of the things people need to escape a life of poverty and deprivation. Where sustainability emphasizes the welfare of future generations, sufficiency reminds us that we must also be concerned about the welfare of present generations, especially the poor.

The norms of participation and solidarity address how we meet and distribute our dual responsibilities for present and future generations. Given the absolute centrality of energy to modern ways of life, there are enormous economic interests at stake in any debates about energy options and energy policy. Those who benefit from the status quo will use their power to maintain their privilege and control. The norm of participation, however, values the participation of all and seeks to overcome obstacles to their empowerment. It is not easy to implement this norm, but it is vital given the power of special interests and lobbyists in the energy field. The norm of solidarity also insists that any efforts to meet our dual obligations to present and future generations be made in a way that is just. It is not fair for present generations to burden future generations with rapidly rising levels of greenhouse gases and the ecological and social devastation that scientists warn will be the consequence of global warming and climate change. Solidarity demands that present generations make sacrifices for the welfare of future generations, but solidarity also demands that this burden be shared equitably among those in the present generation. One of the solutions to the climate crisis is to capture the social

and ecological costs of greenhouse gas (GHG) emissions in the prices of coal, oil, and natural gas. This will drive up the cost of energy for all people, but it will have a regressive impact on people who are poor. Solidarity insists that the rich bear a disproportionate share of this burden so that the poor do not.

In these and other ways, the four ecojustice norms provide a general means to assess energy options and sketch out new directions in energy policy. Ethicists often develop additional guidelines or criteria that are consistent with general norms in order to apply these norms to specific issues and policy questions. The task force that developed the 1981 Presbyterian statement on U.S. energy policy developed a list of guidelines to assess energy options. These guidelines fleshed out various dimensions of sustainability, sufficiency, participation, and solidarity. Robert Stivers was the chair of this task force. He and I recently revised these guidelines in our book, *Christian Environmental Ethics: A Case Method Approach*.[22] What follows is a brief description of these twelve guidelines:

- **Equity** concerns the impact of policy decisions on various sectors of society with special concern for the poor and vulnerable. Burdens and benefits should be assessed and distributed so that no group gains or loses disproportionately.
- **Efficiency** is the capability of an energy policy or alternative to provide power with the input of fewer resources. It also means frugality in consumption and a decrease in pollution. New technologies are essential to satisfying this guideline.
- **Adequacy** addresses the complex problem of supply. Policies and energy alternatives should be sufficient to meet basic energy needs. The meeting of basic needs takes priority until they are satisfied, then gives way to other guidelines, especially frugality and conservation.
- **Renewability** refers to the capacity of an energy option to replenish its source. Reliance on renewable sources should take priority.
- **Appropriateness** refers to the tailoring of energy systems to a) the satisfaction of basic needs, b) human capacities, c) end uses, d) local demand, and e) employment levels. Energy decisions should lead to a variety of scales and level of technical complexity.

- **Risk** concerns the measurable potential of an energy policy or alternative to harm human health, social institutions, and ecological systems. Low risk options are preferable.
- **Peace** points to the potential of an energy policy to decrease the prospects of armed conflict. While international cooperation is essential to a sustainable energy future, energy dependence should be avoided to prevent disruption of supplies.
- **Cost** refers to monetary costs as well as other social and environmental costs. All costs should be included in the prices consumers pay for energy.
- **Employment** concerns the impact of a policy or alternative on employment levels, skills, and the meaningfulness of work. Policies and systems should stimulate the creation of jobs and new skills.
- **Flexibility** points to the capacity of policies and options to be changed or reversed. High flexibility is preferable, and systems subject to sudden disruption should be avoided.
- **Timely decision-making** refers to the processes used to set energy policies and choose alternatives. Processes should allow for those affected to have a voice without leading to endless procrastination.
- **Aesthetics** points to beauty as one aspect of a flourishing life. Policies and alternatives that scar the landscape should be avoided.

Many of these guidelines are related to several ecojustice norms, but it is also possible to see how they flesh out particular norms. For example, the guidelines regarding renewability, risk, peace, flexibility, and aesthetics are all aspects of the norm of sustainability. The adequacy, efficiency, and cost guidelines all probe dimensions of the norm of sufficiency. The guidelines that address timely decision making, employment, and the appropriateness of various energy technologies are all expressions of the norm of participation. Finally, the emphasis on equity in the very first guideline reflects the central emphasis of the norm of solidarity. I use the four ecojustice norms and these twelve energy policy guidelines in the following two chapters to engage in a comprehensive ethical assessment of U.S. energy options and related public policies.

Guidelines for Ethical Assessment of Climate Policies

After assessing U.S. energy options, the next two chapters in this book focus on climate policy. As I emphasized in the introduction, the current pace and projected increase in global warming are unprecedented in human history. Scientific studies released after the Intergovernmental Panel on Climate Change's Fourth Assessment Report have often been accompanied by increasingly loud and alarming warnings from scientists. All of this information is motivating policy makers and people around the world to step up efforts to develop effective climate policies. These policy proposals differ in many ways, but in general they all grapple with the following questions:

- What level of GHG concentrations would offer the greatest likelihood of avoiding ecological catastrophe, and how rapidly should nations reduce their emissions to achieve such a target?
- Who should bear responsibility for reducing emissions in the future, and to what extent does this depend on emissions in the past as well as the capacity to bear the costs associated with reducing emissions in the present?
- What are the best means to reduce GHG emissions, and how can they be employed in the most comprehensive, cost-effective, and just manner?
- When does it make more sense to invest resources to mitigate emissions in the present versus investing resources to help communities and nations adapt to climate change in the future?
- How can financial and technological resources be transferred to industries and nations that lack the means to invest in GHG mitigation and climate change adaptation strategies?
- How will reductions in GHG emissions be verified within a nation and between nations?
- How can climate policies be applied fairly so that they do not hinder economic competitiveness within or between nations?

This list of questions is illustrative, not definitive, and the best way to answer any of the questions is not self-evident. In some questions, the

ethically normative dimensions are articulated, but in others, they are implicit. How should Christian communities answer these questions? What ethical resources could Christians utilize to assess competing climate policy proposals?

The ethic of ecojustice and its related moral norms can be utilized in general ways to conduct an ethical assessment of international and national climate policy proposals. For example, the ecojustice norm of sustainability precludes shortsighted emphases on economic growth that fundamentally harm Earth's climate in the future, but it also excludes any approaches to climate policy that don't address the suffering of over two billion people who are trapped in poverty today. Sustainability emphasizes the importance of healthy, interdependent communities for the welfare of present and future generations.

The ecojustice norm of sufficiency emphasizes that all of creation is entitled to share in the goods of creation. This means, most fundamentally, that all forms of life are entitled to those things that satisfy their basic needs and contribute to their fulfillment. Insofar as the norm of sufficiency repudiates wasteful and harmful consumption and emphasizes fairness, it represents one dimension of distributive justice. Many nations in the developing world are implicitly appealing to the norm of sufficiency as they demand the "right to development" and insist they not be required to make the same rate or level of reductions in GHG emissions as citizens of wealthy, developed nations.

The ecojustice norm of participation stresses that the interests of all forms of life are important and must be heard and respected in decisions that affect their lives. Those who champion the norm of participation should be worried about the growing number of lobbyists who are representing special interests with regard to climate policy. Today there are four global-warming lobbyists for every member of Congress in the United States. According to the Center for Public Integrity, more than 770 companies and organizations spent at least $90 million and hired more than 2,300 representatives to address U.S. climate policy in 2008. The largest player was the American Coalition for Clean Coal Electricity, which spent $9,945,276, dwarfing the next largest funder, Air Products and Chemicals, Inc., which spent $1,365,000.[23]

The ecojustice norm of solidarity highlights the kinship and interdependence of all forms of life and encourages support and assistance for those who suffer. Solidarity calls the powerful to share the plight

of the powerless, the rich to listen to the poor, and humanity to recognize its fundamental interdependence with the rest of nature. The norm of solidarity supports intragenerational transfers of resources from the rich to the poor so that they can adapt to climate change both now and in the future, but it also calls present generations to make sacrifices for future generations as a matter of intergenerational ethical responsibility.

These four moral norms sketch the broad outline of an ethic of ecojustice and can be applied generally to debates about climate policy. As is the case with energy policy, however, additional ethical criteria are needed to assess particular climate policy proposals. I have developed the following guidelines to help expand and apply the ethic of ecojustice and its related moral norms to various climate policy proposals that are discussed later in this volume.[24] Different ethical guidelines address the temporal, structural, and procedural dimensions of these policy proposals.

Temporal Dimensions

- **Current urgency.** Given the fact of global warming and the dire consequences associated with rapid climate change, climate policy proposals should be evaluated on the extent to which they address what Martin Luther King Jr. famously termed "the fierce urgency of Now."[25]
- **Future adequacy.** The proposed level and timetable of reductions in GHG emissions must be sufficient to avoid catastrophic consequences associated with climate change.
- **Historical responsibility.** A greater share of the burden associated with reducing GHG emissions must fall on those who have been major emitters in the past.
- **Existing capacity.** Those with more financial and technological resources should bear a greater share of the cost associated with reducing emissions than those who have much less.
- **Political viability.** A morally praiseworthy climate proposal must have sufficient political support to make it realistic and viable.

Structural Dimensions

- **Scientific integrity.** Climate policies must be based on the best current science and have the capacity to be revised in light of future scientific findings.
- **Sectoral comprehensiveness.** An ethically adequate climate policy should spread GHG reduction requirements over all sectors of an economy (agriculture, heavy industry, transportation, and so on), rather than lay the burden or blame on one or more particular industries.
- **International integration.** Since the planet's atmosphere does not recognize political boundaries, national climate policies must be consistent with international agreements and be integrated with them.
- **Resource sharing.** Morally praiseworthy climate proposals should contain mechanisms to transfer resources from the rich to the poor, so the poor can bear the cost and acquire the technologies necessary to mitigate emissions in the present and adapt to climate change in the future.
- **Economic efficiency.** Climate policies that achieve the greatest measures of ecological and social well-being at the least economic cost are morally preferred.

Procedural Dimensions

- **Policy transparency.** It is vital that all parties be able to comprehend the impact of a climate policy upon them and to discern how and by whom the policy will be implemented.
- **Emissions verifiability.** With several principal greenhouse gases and emission sources spread around the world, climate policies must identify ways to verify emission reductions with a high degree of confidence and accuracy.
- **Political incorruptibility.** The auctioning of emission allowances and/or the collection of taxes on GHG emissions will generate major fiscal obligations that the rich and powerful will seek to avoid, as well as enormous revenue streams that some will try to misappropriate. Climate policies must be

designed so that they cannot easily be corrupted by the rich and abused by the powerful.

- **Implementational subsidiarity.** While the focus must be on global reductions of greenhouse gas concentrations, better climate policies will utilize the principle of subsidiarity to empower those closest to the source of the emissions to decide how best to achieve the reductions.

As was the case with the energy policy guidelines, many of these climate policy guidelines reflect aspects of different ecojustice norms, but they also can be associated with particular norms. For example, the guidelines of current urgency and future adequacy clearly address the norm of sustainability. So too do the guidelines that emphasize the scientific integrity of climate policy proposals and the verification of emission reductions. The norm of sufficiency is addressed in part by the guidelines that emphasize economic efficiency and sectoral comprehensiveness. Sufficiency is also addressed when the guidelines of historical responsibility and existing capacity are employed to place more of the burden for reducing GHG emissions on those who have the most financial capacity to bear it. The participation norm is fleshed out in the guidelines that emphasize policy transparency, political incorruptibility, international integration, implementational subsidiarity, and political viability. Finally, the guidelines of resource sharing, historical responsibility, and existing capacity all address the norm of solidarity and the equitable distribution of the financial burdens and moral responsibilities associated with reducing GHG emissions and adapting to climate change.

Conclusion

The following chapters utilize the ecojustice norms and these two sets of guidelines to ethically assess conventional and alternative U.S. energy options as well as climate policy proposals that have been and continue to be debated at the international level and within the U.S. Congress.