

**RELIGION AND RISK:
THE CHALLENGE OF HARNESSING FAITH AND REDUCING EXPOSURE**

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Abstract

Religion continues to be one of the most powerful forces influencing individual and group decisions, livelihoods, lifestyles and attitudes. In this way, religion also influences perceptions of nature, including how natural hazards and associated risks are interpreted. This paper examines potential opportunities for vulnerability reduction provided by societies of profound faith. Current faith-based environmental movements are explored in the context of growing scientific evidence of climate change and the risk of disasters. Contrasting with the constructive role of faith, the paper also discusses examples where belief systems serve as a deterrent for necessary response, by contributing to increasing vulnerability to hazards. The analysis is based on evidence from fieldwork in Central America and East Africa, two distinctly different regions, and recent developments among devout Christian, Jewish and interfaith groups in the United States and the United Kingdom. In conclusion, the paper proposes a framework for continued study on how to harness religion when possible in securing effective and sustainable responses to climate risk, and working with opposing elements of certain faiths in order to minimise adverse impacts on human societies and ecosystems.

I. Introduction: the Role of Religion in Culture and Society

Around the world, religious faith remains a source of support and hope for people facing adverse living conditions, while religious rituals, customs and traditions structure social systems and provide a sense of identity for many individuals and groups of diverse income levels and social strata. Historically, religion has proven one of the most powerful influences in creating or dividing nations, evidenced by the numerous wars fought as a result of differing beliefs causing groupings according to allegiances to these beliefs. Beyond faith and duties that are ascribed to individual denominations, religion both intentionally and indirectly influences and defines social status, ethnic affiliation and cultural identity. Everything from livelihoods and behaviour to traditions and cuisine is intertwined with religion.

Religion here refers to all forms of belief systems based on spirituality, mysticism, and faith in divinity, enshrined in formal institutions in organised religions and expressed in devolved form through superstitions, mythology and folktales. Any conviction or set of principles shared among individuals or groups can be considered religion. However, in contrast with secular philosophy, which can also unite and identify groups, religious belief systems are those that centre around some form or forms of the divine.

Not surprisingly, fields of academic enquiry have emerged to understand the role of religion in culture and society, such as sociology of religion, cultural anthropology and ethnology, addressing issues such as religion and its interactions with, among other things, science,

technology, education and politics. This research has taken forward knowledge on the role played by belief systems in economic growth, development, conflict and conflict resolution and numerous social issues. Nevertheless, religion is rarely a focus of such studies, but rather it is through an explicit examination of religion's role vis-à-vis these other processes that our understanding emerges. Unfortunately, this means that the important role of religion in shaping perceptions and attitudes and influencing key decisions is frequently forgotten when not in focus. Particularly in anthropogenic interactions with ecosystems, including behaviour and attitudes towards nature, religion is a significant factor that is usually not discussed in mainstream debates.

This misses not only explanations for certain perceptions about environment, but it also fails to take advantage of opportunities. Clearly, part of the reasons for their universal appeal is that religious belief systems have proven significant for explaining the world, particularly the dynamics and causes of natural hazards. Many societies worldwide continue to believe strongly in a divine rationalisation of natural hazards and their consequences, reflecting attempts in earlier civilisations to explain the 'inexplicable'. These justifications have cultural significance, and often play a role in defining societies' social and cultural heritage by appearing widely in folklore. At the same time, they can also be scientifically incorrect, misleading perceptions and interfering with rational decision-making processes.

Over the last few years, religious groups have taken a stance on climate change as a major risk to society. Many active groups support extensive policy action to minimise the adverse effects based on the belief that nature should be protected as a divine creation. In this way, religion can be seen as an important arena for taking action to reduce risk from climate change and disasters. Simultaneously, some aspects of religious belief directly go against necessary responses to reducing vulnerability to climate hazards, increasing exposure and vulnerability to hazards through activities related to expressing devotion and faith. For example, some denominations base their beliefs in principles that encourage fatalistic attitudes, which support views that individuals should not interfere with the impacts of natural hazards.

This paper explores beneficial and harmful aspects of religion in the context of climate change and disaster risk. Given that religion is scarcely considered in most social or natural science work on climate change, disaster risk and development, this paper makes the case that this gap needs to be filled. Studies need to consider religion not only as a significant factor that influences attitudes to risk unconstructively, even to the point of being harmful, but also as an institution that can be harnessed to rationalise complex attitudinal and behavioural changes necessary to reduce risk, by basing rhetoric on principles found in many belief systems' protective perceptions of nature.

This paper discusses climate change, environmental change and disaster risk under the rubric 'risk', which refers to the threat posed by extreme events (natural hazards) and gradual change to communities that are vulnerable to these. Climate and environmental change are both risks and causes of risk, because they will increase the magnitude and frequency of natural hazards and reduce natural buffers to these hazards, which will likely result in more disasters because a large portion of the global population is vulnerable to most such hazards. Disaster risk is not the hazard itself, but the potential for a disaster to occur. Therefore, reducing disaster risk means reducing both exposure and hazards. Reducing climate change means primarily reducing hazards. Risk is considered to be a component of a natural hazard and vulnerability to this

hazard, as expressed by the conceptual equation Risk = Hazard x Vulnerability (Wisner *et al.*, 2004).

II. Religion and Climate Change

The mushrooming of faith-driven environmental movements leaves little doubt about a growing understanding that there are strong linkages between religious beliefs and environmental change. A growing number of initiatives that bridge the gap between the Christian, Jewish and 'interfaith' groups and scientific understandings of climate change base their engagement on a moral conviction to protect ecosystems, as part of the divine creation. The emerging initiatives are generally based on a spiritual connection with nature, coupled with an acknowledgement of scientific findings on how the climate is changing. Their purpose is to encourage fellow citizens or members of faith-based groups to accept that climate change is happening, and needs to be addressed through various mitigation measures. Box 1 summarises some of these most prominent initiatives. Notably, they are predominantly being formed in developed countries, especially in the United States and the United Kingdom. For the former, the formation of these initiatives is likely in response to the current US Government's lack of official commitment to reducing the climate change causing greenhouse gas emissions through the existing international policy regime.

As described in Box 1, numerous initiatives focus exclusively on religion and climate change, although most describe themselves as dedicated to bringing together faith and environment. The World Council of Churches and the Holy See have been long-standing observers at the UN climate change negotiations. Many of the other initiatives are more recent or have added specific climate change sub-groups. While the descriptions in Box 1 have been shortened, original language has been left because it is the rhetoric that communicates the message; the choice of language is therefore key for the faithful to identify with the issues. An ability to put risk into the framework that is understood by the groups in question enhances the familiarity of the issue and draws the relevant linkages between cause and effect within the specific belief system.

The bridge that links religion and climate change is a perspective that nature exists to enable human well-being, and nature is in some way a sacred divine creation. Thus, respect for nature and above all a recognition that a degraded environment is not healthy for humanity either underlie these initiatives. But more importantly these initiatives demonstrate a willingness to take action against the impacts of hazards, rather than remain fatalistic and accept 'punishment' or 'suffering' that has been 'sent' by God. Based on attitudes that are enshrined in the different denominations, a constructive perspective acknowledges the need to respond to climate change, both through mitigation of greenhouse gas emissions and adaptation to the impacts.

It would be a stretch to say that initiatives described in Box 1 recognise that some religious doctrines reject scientific explanations of hazards over those described by holy texts, including the Bible, but the fact that they exist indicates that religion also has the potential to be a strong voice in raising awareness of the ironic and increasingly damaging impact of human lifestyles on human security. However, some Christian groups believe that faith-based movements to support taking action on climate change as a way to ensure sustainable development are inconsistent with the conservative Christian views on population control. A recent article in *The*

Christian Post quoted a ‘veteran UN expert’, who believes that ‘sustainable development basically says there are too many people on the planet, that we must reduce the population’ (Westen, 2007). This comment comes in direct response to an April 2007 gathering of climate change scientists at the Vatican and a statement by the Holy See at the United Nations during the 2007 session of the Commission on Sustainable Development (see Box 1), urging action on climate change for the future of humanity. The views of those opposing such statements from religious groups reflect the fundamentalist perspective that in “the destruction of Sodom and Gomorrah, the flood was caused, teaches the Church, not by global warming, but by global sinning” (Westen, 2007).

Box 1: Faith-Based Initiatives on Climate Change

The following initiatives, including meetings, alliances and groups, are among the most prominent. The descriptions below have been modified slightly from the original appearing on each initiative’s website.

John Ray Initiative: An educational charity with a vision to bring together scientific and Christian understandings of the environment in a way that can be widely communicated and lead to effective action. Formed in 1997. Mission to promote responsible environmental stewardship in accordance with Christian principles and the wise use of science and technology. [<http://www.jri.org.uk/>]

Evangelical Climate Initiative: A group of more than 85 evangelical leaders who—as a result of their commitment to Jesus Christ and concern for His Creation—have signed the statement entitled *Climate Change: An Evangelical Call to Action*. [<http://www.christiansandclimate.org/>]

Operation Noah: Aims to encourage Britain and Ireland’s churches and governments to lead a radical transformation in both our culture and economic systems; a transformation towards simpler, livable and supportable lifestyles that will increase happiness and well-being, while safeguarding the whole of God’s creation for future generations. [<http://www.operationnoah.org/>]

The Alliance of Religions and Conservation: Secular body that helps the major religions of the world to develop their own environmental programmes, based on their own core teachings, beliefs and practices. Works with 11 major faiths through the key traditions within each faith. [<http://www.arcworld.org/>]

The Regeneration Project and the Interfaith Power and Light Campaign: Interfaith ministry devoted to deepening the connection between ecology and faith to help people of faith recognise and fulfil their responsibility for the stewardship of creation. Specifically, the Interfaith Power and Light campaign is mobilising a [US] national religious response to global warming while promoting renewable energy, energy efficiency and conservation. [<http://www.theregenerationproject.org/>]

Coalition on the Environment and Jewish Life: The leading Jewish environmental organisation in the US. Has put environmental protection on the agenda of the organised Jewish community and made the case to elected officials and decision-makers that protecting the environment is a moral and religious obligation. [<http://www.coejl.org/>]

Pontifical Council for Justice and Peace: The Climate Change and Development Study Seminar was held at the Vatican on 26-27 April 2007. The event was organised by the Pontifical Council for Justice and Peace to consider pastoral responses to climate change. [http://www.justpax.it/pcgp/eng/home_eng.html]

Thus, even in the case of climate change, where the scientific certainty is rapidly growing, and impacts are already being felt around the world, certain religious groups hold on to different explanations of natural ‘phenomena’. Given the explosion of popularity of the creationism and so-called ‘intelligent design’ in the United States, the existence of this strongly fundamentalist perspective is unsurprising. On the one hand, therefore, is the potential of religious movements

to inspire ‘the masses’ to realise the severity of the climate change problem in a context or using rhetoric that they can relate to— i.e. the spiritual importance of nature as a divine creation. On the other hand is a movement to deny people access to scientific explanations of nature in favour of faith-based explanations, which hands enormous power to religious institutions.

III. Religion and Risk: Case Studies

The following section describes two case studies where religion is a defining characteristic of poor groups of people living together in high-exposure environments to which they are also vulnerable. In the case of El Salvador, religion is shown to be both a trigger for action to reduce risk, and a deterrent that suppresses such initiative. Here, it is an issue of perception and attitudes towards risk. In Ethiopia, religion also distinguishes between those who are vulnerable and those who are more vulnerable, not due to perception but as a result of time required for religious duties. These two case studies thus demonstrate distinct ways in which religion can influence risk.

El Salvador: Perceptions and Risk

The study in El Salvador was undertaken in 2002, focusing on recent settlers in the lower valley of the Lempa river in eastern El Salvador, known as *Bajo Lempa*. The purpose of the research was to understand how processes of adaptation to climate change occur on the ground. The people in focus are subsistence farmers and livestock keepers who were given land through the peace agreements ending the civil war in 1992. Many farmers were unfamiliar with the climatic and environmental conditions in the area, and had experienced several floods and droughts since settling there in the early 1990s. The people are highly politically aware, and most have deep-rooted mistrust in the Government’s policies – a legacy of the war. However, another legacy of the war is the growing membership in the Evangelical Protestant church. This recently introduced faction of Christianity contrasts distinctly from the Roman Catholic perspective in El Salvador that was strongly influenced by liberation theology prior to and during the war.

Liberation theology has its roots in earlier discourse but developed extensively in the Roman Catholic Church in the 1970s. Liberation theology puts emphasis on individual self-actualisation as part of God’s divine purpose for humankind. As such, obstacles or oppressions must be resisted and abolished. During the period of Marxist revolutionary attitudes in Latin America, liberation theology was quickly absorbed into the predominantly Roman Catholic society fighting against oppression of the poorest. In El Salvador, it was particularly the Jesuits who adopted the liberation theology doctrine, and were active in supporting the guerrilla fighters.

With respect to natural climate hazards, religious faith has clearly influenced the degree to which individuals in Bajo Lempa take action to respond to floods and droughts in two ways: first, individuals may hold that events are instigated by some force, such as God, beyond which they may not question why impacts occur; and second, individuals may believe that, due to this ‘supernatural force’, precautionary preparedness efforts cannot influence the actual events, nor their impacts. As expressed by one farmer: “For droughts we cannot do anything, only God can help us”, and another: “There is nothing to do [to protect our crops]: God sends that [hazard], so we cannot do anything other than suffer in poverty”. Upon examination of relevant literature, and as a result of informal discussions with key informants in the field, it appears that

the decisive factor for motivation to respond to floods and droughts in the context of religion in El Salvador is whether individuals belong to either the Catholic Church or the evangelical Protestant Church, where the Catholics are more proactive, and the Protestant evangelicals more passive and fatalistic.

Williams and Peterson (1996) identify a distinction between the evangelical Protestants and Catholics in El Salvador that is linked strongly with organisation and activism, according to a perspective that supports that different religions offer “different sets of resources for responding to political and social conditions” (1996: 873). Roman Catholicism is considered to have been the peasant religion in Latin America (Peterson, 2004). In Latin American Catholicism, environmental problems are considered significant in relation to human needs and interests, although social and economic inequities dominate the attention of the clergy (Peterson, 2004). Evangelism grew in the United States in particular during the 1970s and 1980s, when it was also exported to Central America. According to evangelical doctrine, “efforts to achieve social gains by working for change in this life [are] inappropriate” (Haggarty, 1988). Another important characteristic of evangelical Protestantism is the emphasis on individual, rather than collective actions through organisation, like those supported by the Catholic Church (Williams and Peterson, 1996). Evangelicals do not search for blame within existing society, holding that suffering in this life will be worthwhile for a salvation in the next life (Haggarty, 1998).

These two differences in approach regarding self-help and collective action also influence how Catholics and Protestants in Bajo Lempa interpret and react to floods and droughts. While the belief that floods and droughts may be caused by God is not exclusive to evangelicals, the perceptions about whether these are sent to chastise humans or not, and to what extent the impacts of such events may be influenced appears to be defined by religious perspective. Moisa’s (1996) findings, that fatalism leads to “ideological vulnerability” supports the findings in this study. Fatalism acts as a constraint, because individuals who believe that precautionary action cannot influence the impacts of floods and droughts, as they are ‘God’s will’, may not be inclined to take measures to reduce their vulnerability to hazards. Evangelicals take this a step further, and believe that not only the hazard but also the *impacts* are also caused by God, so therefore nothing can be done in response, besides having greater faith in God.

A fatalistic perspective therefore has implications for community-level organisation and initiatives to address the impacts of floods and droughts. Indeed, researchers in the area found that predominantly evangelical communities more often resisted significant participation in awareness-raising projects with the purpose of minimising the risk posed by floods and droughts.

Ethiopia: Religious Duties and Risk

The study in Ethiopia was undertaken in 2005-6, and focused on understanding coping strategies employed by poor farmers during drought. The people in question are subsistence farmers and livestock keepers who live in the fertile Rift Valley in southern Ethiopia, and the dry highlands of Tigray in northern Ethiopia. Ethiopia is a well-studied case of extreme climate events and intense poverty, with internationally broadcast famines and conflicts. It is also a country with a highly religious population of Orthodox Christians and a significant minority who are Muslim. The difference between vulnerability to losing crops as a result of religious activities in Ethiopia is not a common topic of study. In Ethiopia, Christians are required to

devote considerably more time to religious duties and prayer than their Muslim neighbours, thus Muslims have more free time to attend to their livelihood activities and are less vulnerable to climate variability.

Without doubt, both Christians and Muslims are highly vulnerable to both drought and famine in Ethiopia, as a result of politics surrounding land-tenure, agricultural reform and a highly variable climate. Like in El Salvador, these issues are all compounded by ideologically fuelled revolution. In Ethiopia, however, the complex role of food aid also comes into play. The fieldwork centred on perceptions of performance of irrigation schemes in general, and in particular during dry periods. The purpose was to understand to what extent irrigation is a feasible option for alleviating poverty in the specific context of climate variability. In Ethiopia, where population growth and inappropriate resource management are among the most constraining factors to development, there is strong interest in expanding irrigation. But in a country where the effects of existing climate variability are significant, in particular those of El Niño and La Niña, responses to climatic hazards must bear in mind all facets of vulnerability in order to be effective. This includes social issues, such as dependency on food aid, and also sensitive cultural issues, such as religion.

While both Ethiopian Christians and Muslims are religious, the Orthodox Church requires followers to demonstrate their faith more frequently, through extended services, sometimes taking place throughout the night, recurring fasting periods and regular Church visits requiring lengthy prayer. Indeed, the Ethiopian Orthodox Church requires fasting on Wednesdays and Friday (when no animal products may be consumed), in addition to several prolonged fasting periods each year, totalling 165 days per year. Furthermore, followers are expected to demonstrate their devotion by observing saints' days, which require service attendance, prayer, singing, and other activities. Because of the extensive time devoted to these undertakings, Ethiopian Christians are more vulnerable to losing their crops in the highly variable climate. This is because the rules do not recognise that this time might instead be needed for income-generating activities among very poor communities.

During a visit to Tigray, Muslims and Christians were interviewed separately. Particularly in one village, Christians noted the requirements by the Church to observe saints' days, which can imply several days in a row of active worship, as the biggest obstacle to improving their quality of life. The farmers noted that particularly towards the beginning of the season, when seedlings must be attended to on a daily basis, crops would be lost if this coincides with one or more holy days that would require farmers to spend the day in Church in prayer or attending services. Muslims concurred that while they can tend to their crops as needed, Christian Ethiopians had far less flexibility. Those who can afford it could employ Muslim workers, but few Ethiopian peasants have access to such luxury.

In this case, the question of perceptions has not been addressed because the role of religious duties overshadows it. Furthermore, the study is based on interviews in selected villages, and no religious leaders have been included.

IV. Framework for Harnessing Faith and Reducing Exposure

Religion has been a strong force in improving the lives of many poor. Compassion, particularly in the context shared devotion, serves to trigger religious groups to take on humanitarian tasks,

including development work. This is most prominently evidenced by the numerous faith-based aid organisations that can be found at any one time in the most conflict- and disease-ridden locations around the world. Environmental issues have also been the topic of religious groups, as described in Section II, but this has neither been as prominent nor as resourced as development activities. Religious groups such as Tearfund and Christian Aid span the two issues in their disaster risk reduction efforts, which address environmental degradation, disaster risk and poverty issues simultaneously.

This paper also describes evidence that different religious interpretations of hazard and activities related to expression faith may be detrimental to sustainable development. How these two realities can exist simultaneously can be explained by the difference in perceptions of risk and attitudes towards responding to it found in different religions and their various factions. For some groups, reducing risk of climate change involves activities that fit into the ideology of the belief system. For others, both reducing the source of hazards (mitigating greenhouse gas emissions, for example) and reducing the impact of these hazards by reducing vulnerability to them go against the belief systems. But as can be seen in both El Salvador and Ethiopia, those whose belief systems do not align with responding to risk are suffering, and when one community is composed of groups from different religions, the entire community is adversely affected. There is a case for reconciling these differences: but how can this be done?

To answer this question, this paper proposes a framework for continued study of the issue of risk and religion. One of the first elements of such a framework must be to identify which aspects of individual belief systems are constructive in the context of risk reduction, and which are unconstructive. The aim would be to map out different religious perspectives in order to pinpoint at what stage in the logic the attitudes conflict with those of risk reduction.

A second element of a framework is to develop a platform for dialogue with religious leaders and groups. Particularly important are those in developing countries, and more conservative societies. In the US and UK, there are already a number of progressive groups, as described in Section II and Box 1. On the other hand, although the obstructive role of certain denominations is recognised in El Salvador and Ethiopia, for example, traditional views and above all conservative politics may act as a barrier here and elsewhere to engaging in dialogue, although this should not discourage efforts to do so. In both cases, religious leaders of the 'more vulnerable' church have not been interviewed. A more extensive understanding of the issue would include lengthy discussions with such leaders.

A third element of a framework would seek to integrate social science research more explicitly into the Intergovernmental Panel on Climate Change (IPCC), and other related scientific and policy processes addressing disaster risk, such as the Global Platform for Disaster Risk Reduction. At the recent final IPCC meeting on its Fourth Assessment Report, participants voiced the need for greater inclusion of social science into the next IPCC assessments, however a mechanism for doing so needs to be elaborated. While the involvement of social science authors has increased, the fundamental structure of the IPCC assessments currently does not feature social science as prominently as natural science, since the focus has traditionally been on impacts, rather than vulnerability to these impacts. Although one volume has focused on vulnerability, the extent of this analysis remains limited, because the reports address climate change, rather than the factors that underlie vulnerability to it, such as inequality and political conflict.

Finally, greater dialogue with faith-based disaster risk reduction actors is necessary. Unlike in most climate change efforts, disaster risk reduction takes vulnerability reduction as a starting point, which facilitates incorporation of issues such as religion, in particular because many disaster risk reduction efforts take place on a community level where socio-cultural issues emerge more strongly. Currently, few initiatives actually incorporate these concerns, so an extensive study of faith-based humanitarian organisations and their attitudes towards belief systems and risk should be carried out.

V. References

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