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Why Conservation Needs Religion

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Conservationists have been criticized for failing to protect nature in the face of mounting threats including overexploitation, species loss, habitat destruction, and climate change. Resource managers and scientists have yet to fully engage a major segment of the global population in their outreach efforts to protect the environment: religious communities. The world's religions have been recognized as a surprising driver of support for conservation of biological diversity, and numerous examples demonstrate religious and conservation groups working together to achieve conservation outcomes. However, many conservation organizations do not effectively engage religious groups. When conservation organizations do engage religious groups, efforts to do so are often ad hoc and such partnerships may wane over time. A more systematic approach is needed that directly engages religious communities, develops effective partnerships, supports and sustains dialogue aimed at finding common ground despite potentially divergent worldviews, and establishes supporting mechanisms to maintain the partnerships that are developed. Effective partnerships between religious and conservation groups represent significant untapped potential which can directly support conservation outcomes; such partnerships are likely to become increasingly important with dwindling support for conservation.

Keywords conservation, environmentalism, faith, faith-based communities, religion, religious communities

Introduction

Over the last several decades, support for the environment has declined (Marvier & Wong 2012) and conservation goals are not being achieved at the scale required to address environmental threats (Shellenberger and Nordhaus 2004; Kareiva et al. 2011). Public polls in the United States suggest decreasing support for the environment; the percentage of the population who is either active in or sympathetic to the environmental movement dropped nearly 15% over the last decade (Gallup Poll 2013). Further, biodiversity is decreasing rapidly worldwide despite the global increase in number and extent of terrestrial and marine protected areas (IUCN and UNEP-WCMC 2012). Global emissions and ocean temperatures continue to escalate and proposed emission-reduction and mitigation actions are unlikely to reduce warming sufficiently to avoid damage to critical ecosystems (Hoegh-Guldberg et al. 2007; Den Elzen, Hof, and Roelfsema 2011; Frieler et al. 2013). Additionally, the failure of governments and intergovernmental agencies to create a legally binding framework for nations to address climate change and key environmental issues in 2009 (the “Copenhagen Accord”) has led to a renewed appreciation for the role

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of civil society, in helping to address the environmental crisis. Some have argued that roots of the environmental crisis date back to the Middle Ages, driven by the commoditization of nature; the agricultural revolution; and the modern economic system (Northcott 1996). Such arguments highlight the connection between the environmental crisis and increasing social problems facing modern societies (rich/poor gap; breakdown of stable families and communities, loss of virtue, and decline of religion), and suggest that a new ethic of human and social relations, stemming from and grounded in faith, is needed that addresses human injustice and the self-interested pursuit of material gain (Northcott 1996).

Researchers have suggested that the failings of the conservation movement are due, in part, to conservationists focusing on technical solutions to environmental problems as opposed to solutions that are driven by vision and values (Shellenberger and Nordhaus 2004; Vucetich and Nelson 2010). Conservation science helps to identify quantitative conservation goals (e.g., percent habitat protected), catalog the decline of species worldwide, and attribute dollar values to nature, yet it does not provide guidance on how to *value* nature.

Religion functions as both a source and legitimator of moral values, arising from a faith ethos or culture, which construct the duties, joys, and responsibilities of how people order their lives and their relationships with each other, with the Divine, and with the natural world (Northcott 1996). Religion has historically played a central role in providing meaning, influencing values and motivations, regulating peoples' actions, and mobilizing policy changes including supporting environmental conservation (Rappaport 1999; Wilson 2002; Palmer and Finlay 2003; Tucker and Grim 2009). Building effective partnerships between conservation and religious organizations, therefore, has significant potential to influence human behavior to support conservation outcomes, as demonstrated by a number of case studies described below.

Effective partnerships between religious and conservation groups depend on several important factors. Experiences of groups, such as GreenFaith or the Alliance of Religions and Conservation (ARC), have shown that partnerships between a specific environmental group with a clear issue to address and a faith group with a clear vision of what it believes and wishes to contribute can be most effective if the conservation group is willing to learn from the faith group about respectful and meaningful ways to engage, to invest resources (financial and otherwise) into developing the environmental leadership capacity of the religious community on these issues, and to share the benefits related to the shared activities with the partnering faith communities. It is also important that conservation partners recognize that mobilizing religious groups to advocate for specific policies, rules or regulations requires a commitment both to building trust and to helping faith leaders articulate the issues at hand in religious and values-based language.

The goal of this article is to explore the potential benefits of religious and conservation partnerships to inspire changes in human behavior to achieve environmental goals according to one's core beliefs and practices. We provide a systematic approach that highlights the importance of engaging religious communities, developing effective partnerships, and supporting and sustaining dialogue aimed at finding common ground despite potentially divergent worldviews, and establishing supporting mechanisms to maintain the partnerships that are developed.

Potential Benefits of Increased Collaboration

Value systems are critical components of decision-making and guide prioritizations of conservation actions and allocation of resources. Many within the scientific or

environmental world believe that faiths are primarily about codes of ethics. This is not the case. Faiths are about the ethos of compassion, belief, mythology, ritual, celebration, and values that arise from their core teachings and actions. Ethics arise, if at all, from such a context and are not the core purpose of any faith (Tucker and Grim 1998). The potential of religion for inspiring “changes of human identity” because of classic religious virtues (e.g., humility, moderation, anti-materialism) also has been recognized (Lodge and Hamlin 2006). Acknowledging the sacredness of the natural world provides a powerful reason to inspire the masses to protect it. Religions can help to translate scientific concepts, which may be exogenous to non-Western and local cultures, into worldviews that are more easily understandable and acceptable by local populations. Religions also can define the place of humans in nature including appropriate actions toward the environment, and can reinforce the idea that nature is sacred (Sponsel 2007; Tucker and Grim 2009; Sponsel 2012). Religions have been involved in some of the earliest forms of habitat protection through preserving sacred natural sites (Ramakrishnan 1998; Wild and Mcleod 2008; Dudley, Higgins-Zogib, and Mansourian 2009; Verschuuren et al. 2010; Pungetti, Oviedo, and Hooke 2012). Religions also may inspire compassion towards non-humans and ecosystems which may support environmental concerns and actions (e.g., Palmer and Finlay 2003; Gottlieb 2007; Tucker and Grim 2009). In some religions, such as Christianity, faith is often about being good stewards of God’s creation, and doing so, ultimately, is about being a good neighbor; environmental degradation affects people and especially, future generations. Religions may also provide leadership in initiating conservation projects, provide guidance on pursuing conservation objectives, and may seek to persuade members that each has a moral obligation to contribute to conservation (World Bank 2006). Religions can offer the conservation movement hope, hope that through collaboration between the conservation community and the faith of people worldwide, we can begin to reverse the destruction and create a future for our children and the planet where respect and care for nature drive environmentally responsible choices.

Historically, religions have been powerful transformative agents (e.g., Civil Rights Movement in the United States; Lodge and Hamlin 2006). Religions can support political action and contribute to environmental policies. Faith communities comprise the largest social organizations in the world (Gardner 2002; Awoyemi et al. 2012); with 80% of the world’s population subscribing to one of the eleven major faiths (Baha’i, Buddhism, Christianity, Daoism, Hinduism, Islam, Jainism, Judaism, Shinto, Sikhism, and Zoroastrianism; Bhagwat, Ormsby, and Rutte 2011a). Over four billion people worldwide have values rooted in these faiths (Bhagwat, Dudley, and Harrop 2011b), highlighting the potential for public action driven in part by such values inherent in these traditions and their ethos. In the United States, 80% of Americans have a religious affiliation (PEW 2008), demonstrating the importance of effectively engaging religious communities to help achieve policy support for appropriate conservation initiatives. Studies indicate that religious Americans are up to twice as civically active as secular Americans (e.g., measured by belonging to community organizations, participating in demonstrations) and are more generous in terms of volunteering and philanthropic giving (Putnam and Campbell 2012). Additionally, nearly 15% of the Earth’s land surface is under the influence of religious or sacred institutions, thus has the potential to support biodiversity conservation (Gardner 2002; Bhagwat and Palmer 2009).

Increasing Partnerships Worldwide

Global issues such as deforestation, climate change, and poverty cut across secular and religious lines and are providing an opportunity for religious and conservation communities to work together. Such partnerships have increased over the last few decades, yet more work is needed to develop new partnerships and sustain the ones that have been developed. These partnerships can generate greater public legitimacy, and provide the potential to mobilize mass support for conservation objectives (Bhagwat, Dudley, and Harrop 2011b). They are also manifestations of the core faith values and beliefs around the significance of nature as a whole and the role of humanity within that. One of the earliest examples of such an effort was launched in 1986 when religious leaders gathered to celebrate the 25th anniversary of the World Wildlife Fund (WWF) at the Basilica of St. Francis in Assisi, Italy. This meeting led to the development of the Assisi Declarations, which included extractions of environmental ethics and ethos from five mainstream faiths: Buddhist, Christian, Hindu, Muslim, and Jewish (Sponsel 2007; 2012). In subsequent interfaith conferences, additional faiths added declarations and a network of faiths was established called the ARC. ARC currently works with twelve major religions to bring these faiths together with conservation organizations to support the development of their own environmental programs according to their core teachings, beliefs and practices. In addition to “mainstream” religions, alliances have also been built between traditional knowledge holders, academics, and conservationists to support the conservation of sacred natural sites and territories (e.g., The Sacred Natural Sites Initiative). Indigenous spiritualities are often found in connection with areas of very high biodiversity and therefore, important for conservation initiatives (Stevens 1997; Grim 2001).

Another effort linking religion and conservation is Yale’s Forum on Religion and Ecology (<http://fore.research.yale.edu/>). This Forum was established in 1998 to support dialogue between religions and other disciplines (e.g., science, ethics, economics, education, public policy) to address environmental problems. The Yale School of Forestry and Environmental Studies and Yale Divinity School offer a joint master’s degree program in religion and ecology.

International faith groups dedicated to the environment include the Asian Buddhist Network, Khorat Initiative, Association of Buddhists for the Environment, A Rocha, Religious Campaign for Forest Conservation, Buddhist Peace Fellowship, Farming in Allah’s Way, and Islamic Foundation for Ecology and Environmental Sciences. International collaborations between religious and conservation groups include the Earth Island Institute’s Sacred Lands Films Project, Sacred Natural Sites Initiative, Green Pilgrimage Network, and groups including the “Redwood Rabbis,” the Sisters of Earth, the African Earthkeepers of Zimbabwe, the Sarvodaya Movement of Sri Lanka, the Tzu-Chi Foundation of Taiwan, the Interfaith Global Climate Change Network, and the Evangelical Environmental Network (Tucker 2012). Groups such as the International Interfaith Investment Group (www.3ignet.org), collectively worth over US\$7 trillion, encourage religious groups to change their investment policies to support conservation.

Many individual leaders of religious faiths have called for environmental stewardship including Pope Francis, Pope Benedict XVI, the Dalai Lama, and Archbishops of Canterbury since the late 1980s. Some, such as Patriarch Bartholomew I of Constantinople, have championed environmental agendas and brought together scientists, conservationists, religious leaders, and policymakers to address the ecological crisis, and his efforts have earned him the name “the Green Patriarch” and “the Green Pope” (Chrissyavgis 2007). Pope Francis is planning to launch the first papal encyclical on the environment this

summer, highlighting environmental degradation and the effect of climate change on the world's most vulnerable populations.

A number of international conservation and development organizations have had or currently have outreach programs that bridge religion and conservation such as Conservation International (CI), World Wildlife Fund (WWF), the Wilderness Society, United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), World Bank, UNEP, and International Union for Conservation of Nature (IUCN). While partnerships between conservation nongovernmental organizations (NGOs) and religious communities have been developed, support for related programs and projects is often difficult to maintain.

Other cooperative efforts that bridge religion and conservation science together are the Society for Conservation Biology's Religion and Conservation Biology Working Group and the American Association for the Advancement of Science's Dialogue on Science, Ethics, and Religion (DoSER), which are involved in building bridges between science and religion to address environmental challenges and to facilitate greater communication.

Case Studies

There is a growing record of successful partnership between religious groups and conservationists around the world. For example, WWF partnered with ARC, the Maronite Church, and the Association for Forest Development and Conservation to protect the Harissa Forest in Lebanon (Palmer and Finlay 2003). This forest was identified as a conservation priority, yet was threatened due to a rapidly developing tourism industry. Initially, environmental groups asked landowners to follow national and international laws to protect this forest but received no reply. Then, a local environmental group led by religious leaders discovered that the forest of Harissa had been owned by the Maronite Church of Lebanon for over 1,000 years, and is considered a holy forest. Representatives from ARC and a local environmental group met with the head of the Maronite Church and the Patriarch committed the Church to protect the forest in perpetuity. Since 2000, the Church has established an ecology center for young people, has protected two other major woodland sites, and developed a program of environmental education and action in over 70 villages, becoming one of the key environmental advocates in Lebanon.

Another initiative of ARC is the Green Pilgrimage Initiative, which helps religious faiths set up a network of green pilgrimage cities around the world and inspires pilgrims to leave a "positive footprint on the Earth" (e.g., through choosing sustainable tourist agencies, eating/drinking sustainably, minimizing waste and water use, disposing of trash responsibly, supporting environmental efforts and sharing environmental ideas with other pilgrims and residents in pilgrimage city). Over 100 million Hindu pilgrims attended the 12-yearly Kumbh Mela in India, which was the largest human gathering in recorded history, and annually at least 200 million people become pilgrims, so efforts to raise environmental awareness of these groups can have significant environmental outcomes (<http://www.arcworld.org/downloads/Green-Pilgrimage-Network-leaflet.pdf>; <http://arcworld.org/news.asp?pageID=640>).

In Indonesia, a Balinese environmentalist worked with local religious leaders to support a campaign led by WWF to stop the use of sea turtles in Hindu ceremonies in Bali. In the late 1990s, Ketut Sarjana Putra, currently the executive director of CI-Indonesia, lobbied for a national law to protect turtles throughout Indonesia. A law was created in 1999 that banned the harvest of turtles but allowed for exceptions made in Bali to capture

5,000 turtles/year for consumption in religious ceremonies. Putra learned that the quota was exceeded seven-fold and worked with the Balinese government to remove the quota completely and replace it with a new law, passed in 2000, that allowed for turtles less than 60 cm long to be harvested only for religious ceremonies with a permit and recommendation from a Balinese priest, and only green turtles. Putra worked with local Hindu leaders to ban turtle meat from their ceremonies, appearing on local TV weekly to raise the awareness of endangered sea turtles.

A current example of the power of linking religion and conservation goals occurred in 2014, when Islamic clerics in Indonesia issued a fatwa (a religious decree) to protect endangered species. The Indonesian Council of Ulema (MUI) declared the illegal wildlife trade to be forbidden under Islamic law; the *fatwa* forbids Indonesia's Muslims from all activities resulting in wildlife extinction. This is the first ever fatwa issued against illegal wildlife trafficking and resulted out of a partnership between the ARC, the WWF-Indonesia, and the Indonesian Council of Ulema. The fatwa could play an important role in protecting Asian elephants killed for their ivory and also could protect marine mammals including dolphins, dugongs, and whales. It remains to be seen whether the fatwa will be effective in protecting endangered wildlife and/or whether it will result in significant policy changes.

Misali Island, Tanzania, was devastated by dynamite fishing techniques that threatened critical turtle nesting beaches and some of the most important coral reef areas in the Western Indian Ocean. In 1998, the government declared Misali Island and its waters an official conservation area, but efforts to ban dynamite fishing failed and the communities were in danger of losing fish they depended on for survival. With help from the Islamic Foundation for Ecology and Environmental Science, ARC, and WWF, the community explored Islamic teachings and determined that destructive fishing practices were illegal according to Islam (Palmer and Finlay 2003). They used passages from the Qur'an to show the importance of protecting vital fishing sources and were able to stop destructive fishing and successfully conserve this area.

In the United States, religious groups have played a central role in shaping policies to care for the Earth such as Christians for the Mountains, Green Sangha, GreenFaith, The Green Seminary Initiative, and Interfaith Power and Light. Evangelical groups, such as the Evangelical Environmental Network (EEN), are dedicated to educating, inspiring, and mobilizing Christians to care for God's creation, be faithful stewards of God's provision, and advocate for actions and policies that honor God and protect the environment. In 1996, EEN waged a successful campaign to prevent congressional Republicans from weakening the Endangered Species Act.

Challenges

Despite the demonstrated success of conservation and religious groups working together to achieve conservation objectives and the recognition of the contributions of world religions to conservation (Hillmann & Barkmann 2009; Tucker 2012), a number of limitations must be acknowledged. For example, some researchers warn of oversimplification when considering the relationship between religion and conservation because (1) tremendous diversity exists within any individual religion; (2) individuals may follow elements of multiple religions simultaneously (e.g., Buddhism and Shinto in Japan); (3) individuals differ in their degree of religiosity (from nominal to strict adherents); (4) discrepancies exist between professed ideals and actual behavior of adherents; and (5) religious beliefs and practices may be ecologically adaptive, maladaptive, or neutral (Sponsel 2007; 2012). While it is beyond the scope of this article to explore these challenges in detail, it

is worth noting that they are far from resolved, and there is much scholarship discussing these issues (D'Andrade 2006; Sponsel 2007; 2012; Snodgrass & Tiedje 2008).

Some authors assert that a lack of religious tradition among leading American scientists has led to a lack of ongoing interaction between these scientists and religious individuals and communities, and a lack of cultural context for understanding the differences in their worldview, a gap that hampers dialogue (Ecklund 2012). Such perspectives reinforce the perceived disconnect between science and religion, and reinforce the stereotype of "scientists as cold, hard, soulless individuals who try to reduce the splendor of nature to sterile mathematical formulas or the mystery of life to laboratory manipulations" (Frankenberry 2008, xiv-xv).

Another challenge to be overcome is that some may perceive a conflict between a religious desire to care for people and the desire to care for the environment (e.g., some sections of the Christian tradition recognize this split; Wanliss 2010). Others, however, argue that pitting "earth care" against "people care" presents a false dichotomy; in a Christian context, it is not about prioritizing the environment over individuals, as care for humans and environmental sustainability are inextricably linked. Creation care recognizes that human interactions with the natural world result in both environmental and humanitarian consequences. A Hindu worldview affirms the interconnectedness of humans, plants, and animals. In Hinduism, the universe is God's body, of which humans and all else in nature belong. To harm another person or nature is harming God's body, and therefore, harming oneself (Selin and Kalland 2003). In Buddhism, humans and nature are inseparable and the idea of separateness is an illusion. The health of the whole is inseparably linked to the health of the parts, and vice-versa, that is, caring for the environment begins with caring for oneself. Regardless of worldviews that clarify the linkages and/or interconnectedness between humans and the environment, it is important for partnerships between faith and conservation groups to demonstrate how caring for the environment and caring for humanity are not mutually exclusive.

Some have argued that the question is not simply how religion and conservation can combine forces, as this ignores their justification of environmental exploitation over time (Sodhi and Ehrlich 2010). Indeed, some Christians have rationalized environmental destruction based on their interpretation of human dominion over nature. Similarly, the scientific revolution institutionalized ecological destruction by linking experimentation, knowledge, and political power, and modern science has been used as a vehicle to exploit nature where mountains are viewed as "natural resources," forests as "agriculture," rivers of fish as "stocks" and human communities as the "labor force" (Sodhi and Ehrlich 2010). While scientific research is critical to articulate ecological challenges, science alone cannot form socially sustainable values (Van Houtan 2006). Therefore, it is important to explore how different religious traditions recognize nature conservation as a virtue and cultivate the virtues that support conservation.

Recently, scholars have demonstrated that scientists and conservationists (e.g., John Muir and E. O. Wilson; Muir 1912; Wilson 1992) are often ultimately motivated by extraordinary experiences in nature that could be characterized as spiritual, and often built on a background of formal religion (Stoll 1997; Frankenberry 2008; Taylor 2010; Sponsel 2012). Recognition and broader discussion of these experiences among conservation and faith-based communities can help to break down the stereotypes that exist of scientists as atheists or agnostics. Despite such challenges, religion and conservation scholarship suggest that there is great potential for religious and conservation groups to work together to achieve joint environmental objectives according to their core teachings, beliefs, and practices (Hillmann & Barkmann 2009; Sponsel 2012; Tucker 2012).

Systematic Approach

If the environmental crises are to be overcome, then the ability of scientific knowledge and faith to collaborate based upon their own perceived sets of values is of crucial importance. Together they can be a much stronger basis for action (Lodge and Hamlin 2006). The potential of such collaboration based on integrity within both groups—religious and scientific—is increasingly being recognized and developed. To build effective and sustaining partnerships between conservation and religious organizations, a systematic approach is needed. A number of tools have been developed to help organizations develop effective partnerships (e.g., Mohr and Spekman 1994; Sterne, Heaney, and Britton 2001; Tennyson 2005). These tools highlight the importance of developing trust, transparency in planning and decision-making, empowerment of partners, realistic timeframes for development and implementation of joint activities, and collaborative monitoring and evaluation so issues can be addressed, success measured, and approaches adapted when necessary. These principles are also important for developing partnerships between religious and conservation groups. The following section focuses on additional principles that are important for the successful development of such partnerships. These principles have been developed based on relevant literature and case studies and decades of direct experience (of the ARC) brokering and supporting partnerships between conservation and religious groups.

Build on Existing Projects

Many international conservation organizations are already working with religious groups, as often local communities and decision makers are affiliated with a particular faith. However, these interactions/partnerships often are ad hoc and not integrated into a comprehensive program linking religious and conservation groups. By contrast, some conservation organizations have dedicated programs or working groups and a history of engaging religious communities explicitly (e.g., WWF's Sacred Gifts Initiative and Sacred Earth program; Sierra Club's Faith Partnerships program; IUCN World Commission on Protected Areas (IUCN-WCPA)'s Specialist Group on the Cultural and Spiritual Values of Protected Areas). Therefore, in many cases, there is a framework of engagement to build on.

A critical first step, therefore, is to identify what programs are currently implemented that link religious and conservation groups and assess their effectiveness. Valuable lessons can be consolidated that will inform future engagement efforts. In cases where there are no programs linking conservation and religious groups, it is useful to consider whether such an initiative can be developed. However, it is critical to ensure that there is sustained leadership and funding to support new collaborations. Often conservation priorities are driven by campaigns and funding cycles, whereas priorities of religious groups are often maintained over generations (e.g., sacred forests in India have been protected over many generations and are important reservoirs of biodiversity; Bhagwat & Rutte 2006). Therefore, conservation and religious partnerships require long-term commitments.

Identify and Develop Shared Values and Objectives through Dialogue

In many cases, common ground exists between conservation and religious groups and shared values and objectives have been identified. In these cases, it is useful to build on the positive examples, but where conflicts exist, it is important to promote dialogue and education on both sides.

Understanding the structure and values of communities is important for effective collaboration, and conservation groups need to apply this perspective to building partnerships with religious communities. To identify and understand values and objectives of both groups, it is essential to create opportunities for dialogue within and across faiths and with conservation groups to promote environmental conservation and sustainable development (e.g., WWF Assisi Conference), and identify synergies between religious programs and conservation initiatives (Bhagwat, Ormsby, and Rutte 2011a). An important vehicle for understanding values is through sharing stories. Stories can be instrumental in making or changing behavior (Palmer and Wagner 2013). For example, scriptural and traditional stories within faiths can drive the motivation for changing environmental behavior, rather than the presentation of scientific evidence alone, and indeed, ARC's experience facilitating conservation action within religious organizations (<http://www.arcworld.org/projects.asp?projectIDD607>) has found this to be consistently true (Palmer, personal communication, December 15, 2014). Such experience demonstrates the importance of collecting, not just scientific data, but also developing stories to express conservation values (Tucker and Grim 2009).

Conservation organizations often conduct surveys to determine voting habits and public opinion regarding the environment. It may be useful to develop surveys to better understand perceptions of the environment, motivations for addressing environmental problems, and specifically the role of faith in these perspectives and motivations. Such surveys should be developed in partnership with religious groups to ensure that they are appropriate and use relevant language. Efforts could be made between conservation and faith-based communities to understand how fundamental beliefs (e.g., creation care and stewardship of the earth) are compatible with and reinforce conservation objectives.

Dialogue between religious and conservation groups might include discussion of existing environmental protection projects currently underway and the potential for future activities, the basis for environmental stewardship in religious faiths and texts, and discussion of leadership in religious organizations and protocols for how to engage leaders/communities. It is important to identify common goals and objectives, and potentially develop new joint goals and objectives together. If new objectives are developed, then it will be important to also develop a joint planning process. It may also be useful to consider the potential contribution of the partnerships and joint objectives to each group's strategic goals. Improved understanding of the values and motivations of religious groups regarding the environmental will also be invaluable for conservation organizations to make their communications, philanthropy, policy, and outreach efforts more relevant to religious communities. Additionally, when conducting outreach with faith groups, it is useful to initiate dialogue around issues of common interest that are non-inflammatory. While this seems obvious, much of the targeted outreach to evangelical Christians in the United States has been framed nearly exclusively around the politically contentious issue of climate change; whereas a more fruitful bridge is likely to be the role of natural resources in supporting human needs or the virtue of mitigating losses of species and ecosystem services (Pritchard 2011).

As dialogue between religious and conservation groups develops, it is important for conservation organizations to explore their own myths and legends and beliefs and values, as these often are apparent to outsiders, but may not be visible to those within conservation organizations. The term "conservation missionary" (Becker and Ghimire 2003) has been used to reflect a sense of Truth within these secular organizations that may find it difficult to deal with the Truth within other organizations—whether secular or religious.

Develop Holistic Approaches

Stronger partnerships between conservation and religious groups have the potential to be a win–win when they support both environmental solutions and action on other social problems (Table 1). Scientific and religious leaders have argued that addressing major conservation challenges (e.g., climate change), provides the opportunity to address many related social problems such as global security and world poverty, in addition to overuse of resources, destruction of ecosystems, and other environment threats (Northcott 2007). Conservation organizations are more explicitly demonstrating the benefits of conservation to humans (as opposed to simply benefiting habitats and other species) (Kareiva et al. 2007), but it is also important to demonstrate how conservation activities address significant social problems. More explicit recognition and attention to this will not only reinforce partnerships opportunities with religious groups who are committed to addressing many social causes, but also will help build partnership opportunities with development organizations and demonstrate the benefits to encourage government and donor support.

Work with Key Decision Makers at Multiple Levels

Conservation organizations often prioritize large-scale efforts (e.g., WWF Assisi Conference) that can demonstrate significant leverage, but it is important to acknowledge that based on the tremendous diversity among religions and their supporters, large-scale efforts alone are unlikely to succeed. It is therefore important for conservation organizations to also prioritize local-scale efforts that bring together conservation practitioners with religious leaders in a given community to support dialogue that helps both sides to better understand how they can work together to achieve joint goals. Including key decision makers and leaders (religious, conservation, government leaders) and securing their commitment and support is needed for effective partnerships to address environmental concerns. Commitments may be solidified in joint agreements or declarations (e.g., Assisi Declarations; Joint Appeal by Science and Religion on the Environment; Many Heavens One Earth Our Continent). While high-level support from leadership is needed for developing and

Table 1

Factors contributing to successful partnerships between conservation/religious groups

-
- Religious objectives and conservation objectives developed in joint consultation
 - Conservation and religious groups each have clearly articulated objectives for the project
 - Support from top leadership in conservation organization who encourage development of new religious/conservation partnerships
 - Funds are available to enable both organizations to hire appropriate staff to support partnership development
 - Technical capacity built among organizational and project staff through training of how to improve partnerships
 - Wildlife and ecosystem conservation goals evaluated in relation to impacts on indigenous communities, long-time community residents, and disadvantaged/marginalized communities. Leaders of these communities participate actively in project development.
-

sustaining joint visions and commitments to achieving environmental objectives, emphasis is also needed at field levels to support conservation activities on the ground.

A common mistake made by environmental NGOs attempting to develop faith-based conservation programs is to create a post for a single individual who is known to have a faith and then place upon him/her the responsibility to engage all religions and serve as the liaison between religious groups and the environmental organization. This is problematic because although one belongs to a church, mosque, or temple, this does not mean that he/she is capable of working with different religions and their beliefs and organizations.

Seek Support from Experienced Partners

Many conservation organizations may not have experience engaging religious groups and it will be important to reach out to experienced partners to support such efforts. Groups such as the ARC, Asian Buddhist Network, A Rocha, Farming in Allah's Way, and Islamic Foundation for Ecology and Environmental Sciences are effective at helping major religions of the world develop their own environmental programs based on their own core teachings, and working in partnership with existing conservation groups. Experienced partners may help support the development of partnerships between religious and conservation groups by hosting events to promote dialogue between groups, identifying opportunities to work together, and providing trainings to help conservation organizations work more effectively with religious groups.

Promote Development of Educational Tools and Opportunities

Resource materials and capacity building efforts (such as handbooks, training workshops, lesson guides, and environmental syllabuses) are valuable for both religious and conservation groups. Environmental training for religious leaders/communities can be helpful to build local capacity and support for conservation projects. Resources are also important that provide practical guidance for environmental protection and highlight the basis for conservation in religious texts. For example, RARE's Pride Campaign developed guidebooks for inclusion of conservation messages in sermons or "sermon sheets" for local religious leaders throughout the Asia Pacific region, Caribbean, Central America, and Africa. Additionally, guidebooks have been developed for conservation communities to support the development of dialogue and partnerships with specific religious groups (e.g., Buddhists in Cambodia and Mongolia; the guidance includes the potential of a particular religious group to support conservation efforts; practical guidance for engaging religious leaders and communities; case studies of efforts by religious groups to achieve conservation outcomes; practical information on religious and secular environmental organizations including contact details; Chimesengee et al. 2009). However, additional guidance is needed to help conservation communities expand their partnerships with additional religious groups worldwide.

Establish Supporting Mechanisms

One of the greatest challenges facing conservation groups partnering with faith groups is the sustainability of these programs and projects. Conventional sources of funding for conservation are insufficient to address the existing and emerging threats facing species and ecosystems worldwide. Efforts to enhance funding for conservation are capitalizing

on the growing diversity of funding sources (Emerton, Bishop, and Thomas 2006), and indeed such diversification of funding is likely to be a prerequisite for ensuring the long-term financial sustainability of projects and programs between conservation and religious groups. It is important to note that faiths have been fundraising for centuries, if not millennia, and have established methods. Looking together at such long established funding sources—church tax; special appeal days; religious family trusts—can open new doors. However, such fundraising will have the faith priorities as the main priority.

Additionally, access to public funding increasingly requires conservation organizations to demonstrate socioeconomic benefits (e.g., health, disaster risk reduction, poverty alleviation) that can be achieved through biodiversity conservation. Partnerships between conservation groups and religious groups with well-established development programs can help to achieve both social and ecological benefits while also accessing large public funding opportunities that support the priorities of both groups. In addition, privately directed aid funding exceeds development assistance, and nearly one-fifth of this aid comes from faith-based organizations and churches (Adelman 2003). Allocating a portion of this aid funding for ecosystem protection and restoration to support livelihoods and development would provide a substantial increase in funding for international conservation (Pritchard 2011).

In addition to securing sustainable financing mechanisms, other important considerations include the fact that in working with faith groups, it is not necessary to “build capacity” from scratch. Significant capacity already exists within these groups. The faiths run over half the schools worldwide; they have professional staff to manage investments, teacher training, curriculum development, their own extensive media channels, their own builders, maintenance staff, and finance officers. They are not NGOs. This is important because conservation organizations that partner with faith groups are working with already established structures. The challenge is to find ways that these structures can faithfully become partners in key issues that are priorities for both faith groups and conservation groups, such as energy use, ethical investment, and education.

Share and Leverage Successes

Efforts to document and consolidate examples of collaborations between religious and conservation groups provide useful case studies to help encourage the development of new partnerships. Such documents could include assessments of what works and does not work so to replicate successful approaches and to inform future efforts more broadly.

Conclusion

To address the current environmental crisis, conservation organizations and religious groups will need to work together more effectively. Based on the demonstrated value of collaborations between religious and conservation groups, it is important for both groups to engage each other more substantively to bring the best of both to bear on current and emerging environmental challenges. To support this effort, a systematic approach is needed that includes: assessing and building on existing joint projects/collaborations; identifying, developing, and sustaining shared values and objectives through dialogue; developing holistic approaches that address environmental and other social objectives; working with key decision makers at multiple levels; seeking support from experienced partners; promoting the development of educational tools and opportunities; establishing supporting mechanisms, and sharing and leveraging successes.

Despite the challenges, our task is clear: we need to encourage both conservation scientists and faith communities to share with each other their experiences struggling with and perhaps reconciling conservation and religion. Such collaboration and dialogue can bolster current religion–conservation successes and develop common ground where barriers still exist to such partnerships. The largely untapped potential of long-term religion–conservation partnerships can contribute positively to a sustainable, green, and just vision for our planet.

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