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## Intelligence Briefing

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**Abstract**

**Non-technical summary.** Effectively addressing climate change requires new approaches to action, implementation and social change. Urban societies are profoundly shaped by faith, with religion influencing the physical environment, institutional structures and lives of citizens. Consequently, there is a need to consider seriously religion's role in mobilizing or constraining climate action in cities. Research is presented that shows the potential of faith-based organizations and faith perspectives to minimize and adapt to climate impacts. A framework for sensitively engaging faith communities in urban climate policy is developed, based on the power of shared values among diverse stakeholder groups to mobilize climate action through partnerships.

**Technical summary.** Global environmental research and policy frameworks have begun to emphasize the importance of culture and multi-sector partnerships for urban sustainability governance. However, there has been little explicit attention paid to religion and belief as ubiquitous urban socio-cultural phenomena. This article reviews literature on the intersection of religion and climate change in the context of cities. Religious responses to climate change are presented as a typology spanning physicalities, practices, 'prophetic' imagination and policy arenas. Key themes are then intersected with areas of focal activity presented in the most recent IPCC reports. Religion is shown to offer both opportunities and barriers for effective urban climate adaptation and mitigation. A new model of religious-civic partnership is then developed as a framework for guiding urban climate policy implementation. This model presents religion as vital to shaping the 'value landscape' of cities and calls for collaborative action based on identifying, enriching and mobilizing shared values. As cities become increasingly more populous, heterogeneous, globally teleconnected and exposed to climate impacts, there is an urgent need for research and policy that effectively engages with the historic and evolving presence and impact of religion within urban environments.

**Social media summary.** Effective action on climate change in cities requires new modes of engagement with religious perspectives, grounded in shared values.

## 1. Introduction

Despite rapid growth in societal recognition of the urgency of the climate crisis, it has become acutely evident that existing responses from government policy, business leadership and technological innovation remain grossly inadequate to keep the earth from tipping into climate breakdown (Ripple et al., 2023). In response to the yawning gap between current levels of ambition and necessary climate action, scholars are advancing an agenda of transformation, which includes practical behaviors and economic patterns as well as shifts in institutional structures, social norms, cultural dynamics and worldviews (Abson et al., 2017; Otto et al., 2020; O'Brien, 2018; Voulvoulis et al., 2022). The IPCC Sixth Assessment Report emphasizes the crucial role cities play in mitigating and adapting to climate change, given they are home to the majority of humanity and contain a critical mass of resources, investment, culture and ideas that can be applied to climate justice and transition (see also Revi et al., 2014; Solecki et al., 2018).

However, one key dimension of culture currently under-recognized in urban climate change scholarship and policy is religion. Alternative sources of knowledge, wisdom and direction will be essential for the move from current (unsustainable) states to desired (sustainable) states (Voulvoulis & Burgman, 2019). However, religious views and faith perspectives are often reduced or publicly dismissed, thus sidelining of their unique contributions and perspectives on urban sustainability (Sexton & Pincetl, 2022). This is despite projections that by 2050, 68% of the world's population will urban, and citizens affiliating with a religious identity will grow even higher than the current figure of 84% (Pew Research, 2022). Religion has been largely invisible in climate governance, even in locations of highest levels of religious affiliation and climate vulnerability, such as the Pacific Islands, where adaptation initiatives are justified via rational scientific logic (Luetz & Nunn, 2020) rather than by locally accepted meanings of climate change shaped strongly by interpretation of Christian myths and narratives (Fair, 2018). Religious identities, structures, trends and dynamics vary greatly between cities as a

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result of socio-political-geographical legacies: the main difference being that religion is more obviously imbricated in material urban structures and governance systems in cities in the global South than the urban North (Becker et al., 2014). However, the role of religion in shaping urban environments globally has been distorted and under-reported by a normative Western colonial and secular gaze predicated on simplistic narratives of modernity and religion (Roy and Ong, 2011; Yountae, 2020). Whether in the Global North or the Global South, there is an urgent need for urban climate change discourse and policy to attend to the voices and experiences of billions of global citizens who identify with a religious affiliation, as well as the deep meanings, ontological assumptions, existential feelings and moral ideals present within individuals, groups and broader society (Stacey, 2024).

Recent scholarship on the governance of urban climate change identifies the importance of polycentric structures, multi-actor networks and social relations among state and non-state actors (Bulkeley, 2010, 2014; Muñoz-Erickson et al., 2016). Accordingly, cities are imagined as complex social-ecological-technical systems (Bai et al., 2016; McPhearson et al., 2022), yet there has been surprisingly little work to conceptualize the place of religion within these theoretical frameworks. One exception is Koehrsen (2018), who presented the actions of religious actors through the lens of the multi-level perspective on sustainability transitions (Geels, 2002; Geels & Schot, 2007). This conceptualizes religious agency within institutions and broader society as experimentation (e.g. advancements in eco-theology), upscaling (dissemination of pro-environmental values) and regime support (embracing sustainability-aligned technologies, practices and worldviews). Civil society is increasingly seen as complex yet crucial to urban sustainability transitions, potentially operating as a driver of positive change, a benign influence or a sector at risk of being coopted by powerful incumbent political interests (Frantzeskaki et al., 2016). However, the features of religious organizations as distinct components of civil society have received little attention.

The picture painted in the literature of the relationship between religion and the wider environment is a complex one. Some scholars point to pro-environmental teachings within world religions (Grim & Tucker, 2014), and the visible engagement of religious leaders in environmental fora (Schaefer, 2016) as evidence of the 'greening of religion' and thus the latent potential for religious action (Chaplin, 2016; Hitzhusen & Tucker, 2013). Others highlight religious barriers to pro-environmental action, such as apocalyptic or domination beliefs (Skrimshire, 2014), as part of a complicated milieu of religious responses to the environment (Koehrsen et al., 2023; Taylor et al., 2016; Veldman et al., 2014). These include being shaped by broader social and political pressures (Koehrsen & Huber, 2021) or paradoxical psychosocial responses such as a positive relationship of religion with environmental interest alongside a negative relationship with concern about environmental threats (Michaels et al., 2021). Others observe a polarized response to the combination of scientific information and pro-environmental religious teaching such as Pope Francis' *Laudato Si* (Li et al., 2016; Wilkins, 2022). Thus, rather than sidelining religious actors from climate governance, there is a need to engage this complexity in developing shared responses to climate mitigation and adaptation challenges.

This article addresses this need by tracing the existing contours of the emerging nexus between religion and belief, the urban and the physical environment through bringing in perspectives from social theory, human geography and philosophy. Religion is contested and notoriously difficult to define. Some scholars take an

inclusive approach based on function (e.g. any systems of beliefs or practices) whilst others adopt more exclusive definitions centered on precise criteria (e.g. requirements of beliefs in a supernatural being or god) (Aldridge, 2007). Religious affiliation is also highly complex, involving individual beliefs and identities that are held within aggregated communities, denominations and affiliated organizations (Kidwell, 2020), along with people who hold religious beliefs but do not associate with a formal religious organization (Davie, 2007). Further, in many parts of the world, especially Western Europe, there has been a documented disassociation of individualized, subjective spiritual experiences and practices from traditional institutional Christian churches (Keating, 2020; Tromp et al., 2020; Woodhead & Catto, 2012). Such 'spiritualization of religion' poses interesting directions for future research yet is beyond the scope of this article. We therefore adopt a pragmatic definition of religion here; namely those actors (individuals, groups, organizations) who identify as religious in any way, and typically, but not exclusively, are affiliated with a religious organization. To advance how urban climate governance may attend more explicitly to religious groups and individuals the article then analyses two applied themes of the latest IPCC report: Working Group II (Impacts, Adaptation and Vulnerability) and Working Group III (Mitigation of Climate Change) through the lens of O'Brien's (2018) three spheres of transformation.

The final section addresses the theme of implementation by means of a new conceptual framework. Religious actors differ from secular actors in many ways, not least the radically alternative cosmologies, epistemologies and axiologies they often espouse (Jenkins et al., 2016). As such, rather than mapping religion onto existing urban sustainability frameworks (*sensu* Koehrsen, 2018) our conceptual framework advanced focusses on values (*c.f.* Ives & Kidwell, 2019). Additionally, religious actors also have an important role as 'intermediaries', connecting public authorities, community groups and grassroots assemblages (Hague & Bomberg, 2023) thus making them indispensable in developing transformative partnerships for urban climate action. Our framework proposes a practical way forward for both religious and secular actors to advance urban climate governance, and more strategically leverage the potential of religion and belief by revealing, working with and enriching shared values through multi-actor partnership.

## 2. Conceptualizing the intersection of urbanization, religion and climate

Sustainable global urban futures will increasingly rely on the extent to which we can understand what Becker et al. (2014) refer to as the 'urban-religious configuration'. Birgit Meyer suggests this configuration prompts two key questions: 'how do new religions transform urban space? And conversely, how do 'cities generate specific urban forms of religion'...?' (Meyer, 2014, p. 595). Rapidly expanding geographies of religion and urban sociology disciplines are responding to these questions (see Kong et al., 2024). Previous understandings of urban-religious configurations include ideas of the postsecular city (Beaumont & Baker, 2011; Cloke et al., 2019), which highlights political, activist and ethical rapprochements between faith-based and secular actors actively discovering in-common values that overcome divides and sustain shared public engagement. It is most evident in the complex religious landscapes of the global North, marked by disaffiliation from aspects of organized religion (particularly Christianity), increasing categories of unbelief (Lee,

**Table 1.** Typology of religious responses to climate change in urban contexts

	Description	Application
Physicalities	Religion and belief interact tangibly with physical urban contexts. Relevant theories include New Materialism (Bennett, 2010), Actor Network Theory (Latour, 2005) and Assemblage thinking (Delanda, 2006; McFarlane, 2011).	<ul style="list-style-type: none"> <li>• Religious communities' provision of capital for relief following environmental disaster (Pant et al., 2008).</li> <li>• Anchor institutions for local resilience in context of climate disaster in terms of provision of healthcare, shelter, education and mental wellbeing (including recovery from trauma) (Glaab and Fuchs, 2018, Lipsky, 2011).</li> <li>• Notions of sacredness enable protection of eco-sensitive urban areas (Jaganmohan et al., 2018, Ormsby, 2021, Tatay and Merino, 2023).</li> <li>• Carbon sequestration on land owned by FBOs (De Lacy and Shackleton, 2017; Gopal et al., 2018).</li> </ul>
Practices	Religious individuals and organizations engage in environmentally-relevant behaviors and practices. Theoretical perspectives include sustainability transitions and environmental behavior theory applied to religious contexts (Koehrsen, 2015, 2018; Gottlieb, 2006; Veldman et al., 2014), as well as sociological perspectives on material practices arising from dispositions of 'faithful' citizens (Baker and Power, 2018, Bourdieu, 1983). Faiths are also effective builders of social capital, 'freighting' moral & spiritual agendas into practical forms of social action (Putnam and Campbell, 2012).	<ul style="list-style-type: none"> <li>• Faith communities provide networks of care and compassion to reduce food poverty &amp; food waste (Williams and May, 2022).</li> <li>• Low-impact lifestyles based on moral and theological motivations (Ives et al., 2023).</li> <li>• FBO-led Recycling mentoring and communal recycling projects (Mohamad et al., 2012a)</li> <li>• Adapting religious buildings to climate change (solar panels, community gardens on land surrounding places of worship).</li> <li>• Religious NGOs supporting faith groups to move towards environmental sustainability (e.g. A Rocha UK: <a href="https://ecochurch.arocha.org.uk/">https://ecochurch.arocha.org.uk/</a>; Islamic Foundation for Ecology and Environmental Sciences: <a href="https://www.ifees.org.uk/">https://www.ifees.org.uk/</a>).</li> </ul>
Prophetic imagination	Religious actors can provide comment and critique of social conditions or normative visions of sustainable futures. Sociology of religious environmentalism conceptualizes 'public campaigning' as expression of religious environmental action (Koehrsen, 2015, 2018).	<ul style="list-style-type: none"> <li>• Sustainable placemaking around shared values and shared local histories (Cooper et al., 2016, Kong and Woods, 2016).</li> <li>• Prominent in environmental activism and protest. For example, Christian &amp; Buddhist XR, Christian Climate Action (Joyce, 2020, Skrimshire, 2022).</li> <li>• Public statements and declarations e.g. joint statement on Climate Change by the Archbishop of Canterbury, Pope Francis and Ecumenical Patriarch Bartholomew (2021), or the Islamic Declaration on Climate Change (UNFCCC, 2015).</li> </ul>
Policy	The inclusion of religious perspectives in environmental policy formulation can offer alternative voices, values, narratives and frameworks for environmental governance. Theoretical perspectives include postsecularity (Beaumont and Baker, 2011; Cloke et al., 2019) which recognizes spiritual beliefs and values exist beyond formal religious contexts. Third Way policy response in US, UK, Europe and Australia (Giddens, 2013) conceptualize civil society as important antidote to State or Market control (Putnam, 2000).	<ul style="list-style-type: none"> <li>• Internal shifts in policy or strategy of religious organizations can represent significant change for sustainability. This includes decarbonized investment strategies (IEMA, 2022).</li> <li>• Integrated policy streams that incorporate both faith-based groups and secular policy actors on issues such as food poverty and environmental sustainability strategies (Baker and Timms, 2022). Effective partnerships are marked by shared values across difference; co-creation rather than co-production; and kenotic (or self-emptying) leadership (Baker, 2023).</li> <li>• In religious states, religious justifications can be used to bring about policy change. For example, in Indonesia, the Ulama Council of Indonesia (MUI) established Islamic legal edicts (fatwas) against harming endangered species, destructive mining, and slash and burn farming (Harvard Divinity School, 2023).</li> </ul>

2015), and growth in spiritual values among those 'disenchanted' with traditional religion (Woodhead & Catto, 2012).

A more material concept emerging from global South urbanism is 'worlding' (Roy & Ong, 2011). It describes the 'heterogeneous spatializing practices' that are created when practices from the world (global cultural ideas and trends) encounter the city, but then are released back in altered form, as 'a non-ideological formulation of worlding as situated in everyday practices that shape alternative social visions and configurations' (Becker et al., 2014, p. 27). These practices specifically include aspirations and imaginations that are religiously informed, and which motivate faith groups to create alternative urban 'worlds'. They achieve this by bringing into being new structures and experiences of living together in the city that address these

aspirations via 'urban-religious forms of circulation and community building, modeling practices...borrowing and appropriating...identities... or as the expansion of religious-political and economic power' (Becker et al., 2014, pp. 27–8).

In this context of the co-construction of religion and cities (Day & Edwards, 2021), we propose four ways of conceptualizing the interaction between religious and urban systems, summarized as physicalities, practices, prophetic imagination and policy (Table 1). The first emphasizes how religion and belief shapes the *physical* and material structure and function of a city (Meyer, 2014). This materiality is expressed in the visible and physical planning of buildings and spaces of worship and social congregation, as well as the social capital provided via the physical presence of religious organizations. This may be, for example, in

the form of a small community food project repurposing land around a church. The second contribution of religion and belief is the public and outward-facing *practices* of religious groups within urban society, historically linked to poverty, homelessness, asylum seeker and migrant support, health and social care, addiction services, and youth and family support. Initiatives and partnerships focused on environmental issues are now coming to the fore especially in projects aimed at ‘greening’ religious assets such as buildings, land and financial investments.

The third influence is what we term *prophetic imagination*, present in all religious traditions and which critiques existing socio-economic structures from the perspective of a perceived divine vantage point, providing an impetus for enacting social justice. There is a clear genealogy linking, for example, the intersection of Black identity and religion from the Civil Rights movement in the 60s to present day global activist movements such as Black Lives Matter (Gray, 2019; Johnson, 2021). In a similar way, religiously-motivated environmental activism is increasingly becoming evident. Extinction Rebellion – the first global environmental protest movement to openly acknowledge the moral power of spiritual and religious dimensions of protest in its language (Joyce, 2020) – encouraged a ‘bubbling up’ of postsecularity (Cloke et al., 2019, p. 3) through welcoming practices of meditation and prayer at its gatherings, and promoting high visibility of faith spaces at its events (such as Faith Bridges), most notably Christian, Buddhist, Islamic and Jewish support (Skrimshire, 2022). Finally, there is a growing *policy* discourse around the importance of developing more strategic partnerships at scale between faith-based and secular actors to deal with existential threats facing urban communities. Recent UK based research has highlighted effective partnerships across faith-based and local authority (i.e. secular) actors mobilized in response to the COVID-19 pandemic which eschewed traditional hierarchies of expertise, protocols and technocratic language (Baker & Timms, 2020, 2022). However, scholarship has also revealed the internal structures of religious groups that can stifle a ‘greening’ imagination at a grassroots or political level (Koehrsen et al., 2022).

The following sections explore key findings and priorities from the IPCC’s Sixth Assessment Report as they pertain to climate adaptation, mitigation and implementation. The lens of the Three Spheres of Transformation (O’Brien, 2018) is used to translate the above four models of religious interactions with cities on climate change. First, the *practical* sphere of transformation, defined by O’Brien (2018, p. 155) as ‘specific actions, interventions, strategies and behaviors’ corresponds to both the materiality of religion in cities and the practices that stem from religious beliefs, values and worldviews. Second, the *political* sphere, defined as ‘systems and structures that facilitate or constrain practical responses to climate change’ (p. 156) corresponds to the prophetic imagination that faith groups draw upon in enacting social and environmental justice. Finally, the deepest and most transformative sphere – the *personal* – is defined by O’Brien as the ‘beliefs, values, worldviews and paradigms that influence how people perceive, define or constitute systems and structures, as well as their behaviors and practices’ (O’Brien, 2018, p. 156). It is evident therefore that religion represents a distinctly powerful contribution towards urban transformation through its role in coalescing social structures and identities and drawing on them to motivate action in political and practical domains. We now highlight how this framework of transformation might be applied to the contribution of religious actors to the priorities of the Sixth IPCC Assessment Report.

### 3. Adaptation and vulnerability

The IPCC AR6 WGII (Impacts, Adaptation and Vulnerability) report emphasized the importance of practical responses to increased frequency, severity and duration of extreme events (IPCC, 2022a). The material resources of religious organizations have been widely documented to be crucial assets in the aftermath of climate disasters. For example, after Hurricane Katrina, many shelters that offered support for evacuees were run by faith-based organizations (Pant et al., 2008).

In addition to immediate practical responses to extreme events, the AR6 report highlights the importance of building adaptive capacity within communities by implementing adaptive strategies (IPCC, 2022a). Climate change impacts the urban poor most severely due to heightened exposure to natural hazards (e.g. flooding or heat) exacerbated by political, economic and planning disparities, and reduced capacity to plan for and respond to hazards due to lack of economic or political power (Dodman et al., 2019; Leal Filho et al., 2019). Yet commonly, religious organizations are anchor institutions within poor and informal settlements, helping to provide social cohesion and support (Glaab & Fuchs, 2018; Lipsky, 2011; Lunn, 2009). Thus, religious organizations can be vital in any activities to enhance adaptive capacity in these settings.

Also key to the contribution of religion to the adaptive capacity of cities is the role of culture and spirituality in place meanings and place-making. A large body of literature demonstrates the importance of shared identity and investment in place as integral to creating and sustaining urban resident localities (Grenni et al., 2020; Horlings, 2016). In many contexts, spiritual meanings and religious histories are central to an understanding of place (Cooper et al., 2016; Kong & Woods, 2016). With the IPCC highlighting the importance of ‘diverse forms of knowledge...in understanding and evaluating climate adaptation processes and actions’ (IPCC, 2022a, p. 7), the role of religious beliefs in shaping local perspectives on climate change and place is vital. This includes notions of sacredness, which can protect ecologically-valuable areas within cities (Jaganmohan et al., 2018; Ormsby, 2021; Tatay & Merino, 2023), and religiously shaped understandings of knowledge, especially religious concepts of future desirable visions (e.g. justice, peace, freedom), which are critical to the effective formulation of urban climate change adaptive strategies.

Finally, religion and spirituality are well known to be important factors that can help trauma victims cope with and respond to traumatic events (Peres et al., 2007) and for many, participation in religious communities can enhance personal resilience and psychological recovery (Pargament, 2001). Given the extensive evidence of the profound psychological damage of climate disasters on victims (see Ferreira, 2020 for recent comprehensive review), understanding the function of religious organizations in contributing to urban adaptive capacity is crucial.

Some have theorized these enabling resources of faith as ‘spiritual’ or ‘religious’ capital (Baker & Miles-Watson, 2010; Haar, 2011), which should be appreciated alongside built, financial and natural capitals. However, any reference to social or spiritual capital needs to be offset with general criticisms, which not only critique its fuzziness and ambiguity (Inaba, 2013) but also its separation from economic capital. This separation underestimates the ways in which cultural reproduction always favors existing power structures rather than providing radical alternatives for the most marginalized in society (for example Bourdieu’s understanding of cultural capital and religious capital) (Bourdieu, 1983; DeFilippis, 2001).

#### 4. Mitigation

The IPCC AR6 WGIII report emphasized the importance of local communities in enabling the necessary and profound transition towards a low carbon society (IPCC, 2022b). Key mitigation actions that cities must pursue include the reduction of energy consumption and enhanced uptake of carbon. Faith-based organizations can significantly assist in *motivating* these transitions through engaging communities with value-based moral motivations for climate action, and *mobilizing* these changes by directing practical and political resources to this challenge. Examples of these are presented below using O'Brien's (2018) Three Spheres framework as an organizing tool.

Within the *practical* sphere, Buddhist, Muslim, Christian and Hindu communities have mobilized recycling behaviors in Malaysia, through their implementation of a communal collection system and ability to reinforce behavior over time (Mohamad et al., 2012a), thus representing faith-based niche experiments towards urban sustainability transitions (Mohamad et al., 2012b). A register of other practical faith-based projects on climate mitigation can be found at the Forum on Religion and Ecology's database (Yale, 2023). Urban sacred sites are also physically valuable for their urban greening, biodiversity and carbon mitigation potential (De Lacy & Shackleton, 2017; Gopal et al., 2018).

In line with the *political* sphere, faith communities have fostered collaboration towards reducing carbon emissions through establishment of networks (e.g. Faith for the Climate; Green Faith, Parliament of World Religions), lobbying for political action on climate, issuing joint statements on the imperative for climate action, and participating in nonviolent direct action. Faith groups have also participated in UNFCCC meetings (Glaab, 2017), in forms that have become increasingly formalized and visible, such as the 'Faith Pavilion' at COP28 (UNEP, 2023). However, many minority faith communities can be encumbered from taking political action that they feel may compromise their social acceptability and legal security within society, as has been observed among British Muslim People of Color (Tobin et al., 2023).

At a deeper level, faith-based action at the *personal* sphere includes interventions or initiatives that seek to shape and activate the moral commitments and religious values that can motivate and underpin climate action. Religious traditions are not homogenous and there can be significant disagreement and conflict within and between religious denominations and communities (Koehrsen et al., 2022). However, religious rationalities for addressing climate change, such as notions of sacredness, stewardship and spiritual relationality between people and nature, have been captured by many organizations in an attempt to unify and catalyze this potential (e.g. Faith for the Climate, 2023). There is also evidence that appealing to religious beliefs, values and rationalities can be a powerful approach to shifting or strengthening attitudes and behaviors related to climate change among religious believers (Ives et al., 2023).

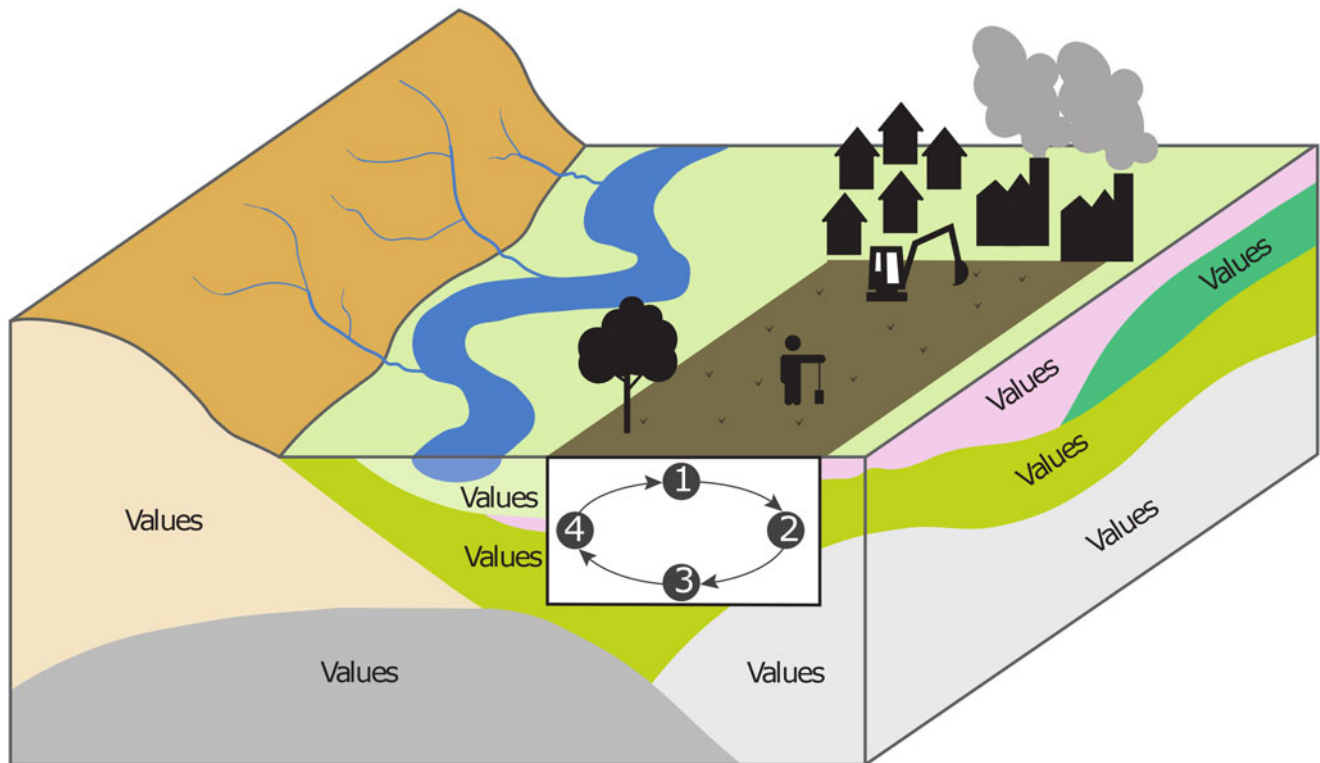
#### 5. Implementation

Given the polycentric nature of environmental governance (Jordan et al., 2018), multi-actor partnerships across formal and informal institutions and networks are key to adaptive responses of cities to climate change (Boyd & Juhola, 2015). Yet, religious actors have often been marginalized, invisibilized or instrumentalized

in formulation of climate policy and engagement in action initiatives by both state and non-state organizations (Tobin et al., 2023). This narrative is changing (see 'policy' row of Table 1), but future framing of the relationship between faith groups and the state or market needs to be re-imagined as one of active co-creators of a common response to a common threat rather than producers of services and outcomes (Baker, 2023; Osborne et al., 2016; Voorberg et al., 2015).

The AR6 WGII report emphasizes the importance of '[e]ffective partnerships between governments, civil society, and private sector organizations, [to] enhance the adaptive capacity of vulnerable people' (IPCC, 2022a, p. 24). Similarly, the WGIII Mitigation report emphasized that '[e]ffective and equitable climate governance builds on engagement with civil society actors' (IPCC, 2022b, p. 45). It is evident that partnerships between faith-based and secular actors are integral to more effective climate action and implementation of climate policy. This resonates with understandings of the 'post-secular city', which is marked by 'a coming together of citizens who might previously have been divided by differences in theological, political or moral principles – a willingness to work together to address crucial social issues in the city, and in doing so put aside other frameworks of difference involving faith and secularism' (Cloke and Beaumont, 2013, p. 28). There is therefore a need for a deeper understanding of basis upon which effective partnerships with religious actors can be formed. Within many contemporary societies, there is a growing emphasis on values as the source of real change in both individual and corporate life, based on sources of spiritual re-enchantment as opposed to disenchantment (Duffy, 2021; Katz et al., 2022; Turner, 2022). Thus, there is a need to develop a theoretical and policy paradigm that harnesses and engages with values and their intersection with religion and spirituality. Figure 1 presents a pictorial metaphor of such a paradigm through the analogy of remediation of brownfield urban land. The intention of this diagram is to illustrate how values that are often embedded at deep levels can be intentionally attended to and 'resurfaced' in political and cultural debate to provide the conditions for positive social action on climate change.

Values can be understood as subsurface sediments that influence the health of the land above it. Just as sediments carry the marks of the depositional environments and landscape conditions within which they were laid down, values carry the marks of the socio-cultural contexts they are derived from. Across geographical and historical settings, cities have been profoundly shaped by religious ideas and practices (Day & Edwards, 2021). After the Enlightenment and following the industrial revolution, technological and cultural changes associated with modernity and industrialization created new cultural environments that 'deposited' a new set of values. These have included human exceptionalism, individualism, a belief in progress and development, an emphasis on utility and production, and consumerism. Many of these values are associated with the process of secularization, which Taylor (2007) characterizes not as a retreat of religion but a philosophical shift in society that legitimizes unbelief, embraces plurality and is grounded in a separation of nature and divinity. More recently, scholars have begun to explore the entanglement of cultural meanings, values and scientific understandings of environmental change that define the Anthropocene (Hamilton et al., 2015). In this context, the 'depositional environment' model proposed therefore recognizes both the importance of religion in shaping the plural sets of values present in contemporary urban



**Figure 1.** A schematic representation of the depositional model of values. As a visual metaphor, sets of values can be understood as sediments, laid down under particular environmental (socio-cultural) conditions through time, often characterized by religious belief systems. Therefore, a complex assemblage of values are present beneath the surface. As remediation of brownfield land requires an understanding of soil histories and conditions to enable establishment of new urban communities and ecologies, the task of forming effective partnerships for urban climate action is to develop partnerships across religious and secular divides, grounded in shared values. This includes (1) understanding the value context, (2) remediating toxic values, (3) mixing and aerating values, and (4) enriching values through collaborative processes.

settings, and rejects neat categorization of values as religious *vs* secular or assumptions of value homogeneity within religious traditions.

This model has profound implications for how action on urban climate change mitigation and adaptation can be mobilized. The IPCC concluded that '[m]itigation options that align with prevalent ideas, values and beliefs are more easily adopted and implemented' (IPCC, 2022b, p. 46). Similarly, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services calls for actions that help 'unleash existing social values of responsibility' for sustainability transformations (IPBES, 2019, s. 33). Horcea-Milcu (2022, p. 5) argued that for the transformative potential of values to be unleashed, they must be 'activated, negotiated, consolidated, and mobilized within and across intentional individual or collaborative processes'. Thus, sets of 'sustainability-aligned values' proposed by IPBES (2022), namely values of care, unity, equity and justice, cannot be neatly imported from elsewhere but must be attended to within particular socio-cultural settings. The stratigraphic model of values proposed here emphasizes the need to recognize and work with existing values laid down in cultural sediments to plant, germinate and nurture seeds of climate transformations.

An understanding of values as cultural sediments has implications for urban climate action. First, just as urban brownfield remediation requires soil testing before actions are decided upon, climate and sustainability practitioners must recognize and understand the religious landscape and history of a community. This includes understanding key historical moments, religious complexity and division, and examples of positive action

and flourishing. Second, just as sediments can be contaminated by toxins and pollutants, so it may be necessary to remediate toxic values, beliefs and attitudes, that lead to the generation of regressive outcomes that privilege the few over the many, whether religious or secular in origin. Religiously derived toxins, for example, could include theological beliefs that see the climate crisis as a welcomed end-of-times phenomenon, or as divine punishment for human sins (Koehrsen et al., 2023, p. 6). These beliefs can generate various forms of climate skepticism, denialism, fatalism or quietism, and are expressed in bureaucratic structures and institutional values of religious institutions that inhibit collaborative engagement with secular organizations and mutual development of coherent policy. Third, just as urban agriculture on reclaimed land requires mixing and aeration of the soil, it is necessary to find shared values across difference, by effectively 'mixing' cultural layers. This can involve establishing contexts where religious beliefs and values can be offered freely as gifts to society rather than markers of division. Finally, as soil is enriched through addition of nutrients, climate action can be enhanced through activities that draw out, support and amplify deep values and motivations for sustainability.

Many of these activities can be seen in a recent example of how resources of UK faith-based organizations were activated during the pandemic lock-downs of 2020 and 2021, and indispensable to the overall policy responses of local authorities (Baker and Timms, 2020, 2022). In terms of the model outlined in Figure 1, the professionalism and scale of response from faith communities in response to the pandemic favorably reminded

secular agencies of their indispensability (i.e. Action 1: a renewed awareness and understanding of religious traditions and practices for the current context). Old hierarchies, bureaucratic protocols and technocratic language, designed to entrench 'expert' vs 'lay' identities, were quickly eschewed as wholly inadequate for the scale of the task in hand (i.e. Action 2: the removal of toxic assumptions and practices that embed regressive as opposed to progressive outcomes). Shared values quickly emerged in the context of devising effective and sustainable responses to human disaster and the realization of a common and interdependent humanity (i.e. Action 3: creating the conditions for aerating the policy landscape by allowing the creative mixing of religious, sacred and secular/scientific substrates of values and beliefs). These values were articulated as kindness, empathy, compassion, motivation, hope, friendship and social justice. Such shared values are being reflected upon by some faith groups and local authorities as the basis for policy formation going forward. This resonates with new ways of consolidating partnership working for sustainability, which focus less on ideological or economic aims that are often sources of division and siloed thinking (Hynes et al., 2020) (i.e. Action 4 – creating an enriched and more fruitful partnership environment that will generate enhanced communication, innovation, trust and solidarity). That shared values will more effectively lead to shared outcomes is a vital lesson that has been learned from the pandemic and can be applied to urban climate challenges.

## 6. Conclusion

There is an urgent need to attend more closely to the social and cultural origins of climate change, contexts that shape how cities experience, and pathways for developing shared action for climate mitigation and adaptation. As representatives of systems of belief, values and meaning-making that differ from conventions of rational science-led decision-making (Gluckman, 2016), there is a need for religious actors to be engaged more explicitly in the mutual co-creation of urban climate policy through the weaving together of multiple forms of knowledge (Norström et al., 2020; Tengö et al., 2014). This article has presented a model for activating partnerships across religious-secular divides through understanding religion as a key influence on prevailing values within society and working to act from a foundation of shared values. However, further research is needed into how such partnerships can be fostered in different geographical contexts and common understandings of climate responses developed across ontological and epistemological divides.

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