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The Influence of Religion on Economic Growth and the Environment. A Literature Review

ABSTRACT

The article analyses the relationship between religious faith and economic growth, as well as between religious faith and the quality of the natural environment. By examining the literature through the lens of the environmental Kuznets curve, this paper aims to provide insights into the complex relationship between these issues and to offer guidance for policymakers seeking to reconcile economic growth with environmental sustainability. The research indicates that both of these relationships are closely related, and the Environmental Kuznets Curve provides the link between them. Therefore, engagement by religious leaders and local communities in the fight against environmental degradation and climate change is highly desirable and expected. Cooperation among all faiths that acknowledge the anthropogenic nature of the environmental catastrophe is also desirable. The research also indicates that, in the case of developed countries, the improvement of the quality of the environment is facilitated by the deepening of individual religiosity correlated with universal ethical systems that include respect for nature as created by God and being His image.

Keywords: religion; economic growth; environment; environmental Kuznets curve

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INTRODUCTION

The relationship between economic growth, religious values, and environmental sustainability is a complex and multi-faceted issue. Economic growth has long been a central topic of public discourse, with many debates surrounding its conditions, future expectations, hopes, and concerns. Meanwhile, environmental discussions have become increasingly urgent in light of growing consumption and associated toxic emissions. Given the relevance of both economic growth and the environment to contemporary society, it is only natural to ask questions about the influence of religious phenomena on these issues. In recent decades, a broad discussion has been held in scientific journals regarding the influence of religious values and attitudes on economic growth and the environment. This topic has been present in scientific literature since at least the early 20th century, with the publication of Max Weber's seminal work in 1904-1905 [1]. Since then, numerous studies have explored the relationship between religion, economic growth, and the environment. One framework that has emerged as particularly relevant to this discussion is the Environmental Kuznets Curve (EKC). This framework provides a lens through which to examine the complex relationship between economic growth and environmental sustainability in the context of religious values and attitudes. The EKC suggests that economic growth initially leads to environmental degradation, but countries tend to experience a decline in pollution levels beyond a certain income threshold.

This paper aims to review the literature on the influence of religion on economic growth and the environment through the lens of the EKC. By examining the research conducted to date, this paper aims to shed light on how religion may impact economic growth and the environment and provide insights for policymakers seeking to reconcile economic growth and environmental sustainability. The paper is organized into four sections. The first section introduces the topic of the influence of religion on economic growth and the environment and provides a brief history of the discussion in scientific literature. The second section is devoted to the influence of religious values and attitudes on economic growth, while the third section discusses works devoted to the impact of religious phenomena on the state of the environment. The fourth and final section of the paper justifies the close relationship between these two topics. It highlights the need for policymakers to consider the interplay between religion, economic growth, and the environment.

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RELATIONS BETWEEN RELIGIONS AND ECONOMIC GROWTH FROM HISTORICAL PERSPECTIVE

The first historically significant concept regarding the mentioned issue was the theory of secularization. The term "secularization" originates from 1646 and initially referred to political practice. It is known that the first to use it in a context similar to the contemporary one was John Wesley, a Methodist preacher, who noticed that as many Christian followers became wealthier, they became less involved in religious practices. In recent times, the theory of secularization was developed by Max Weber. Especially the latter, in his works devoted to the sociology of religion and its impact on economic relations, significantly developed this concept, enriching it with new threads. A significant role in this area was played, especially by the book The Protestant Ethic and the Spirit of Capitalism [1904 - 1905], which raised the role of Calvinism in developing the beginnings of the capitalist system. Religions, subject to transformations from forms that emphasize magical rituals to organized forms with a specialized and well-prepared priesthood group, fulfil certain human needs. However, according to Weber, beliefs serve a more basic need, rational calculation, allowing individuals to optimize their behaviour, especially economic behaviour.

Calvinist theology emphasizes the role of hard work and saving, which lead to prosperity as a sign of God's grace and a sign of hope for future salvation. Thus, Calvinism supports the fundamental rationality of human beings and serves as a kind of protective layer, allowing for further development of this rationality towards the creation of the foundations of capitalism. Once this is accomplished and capitalism develops, taking on increasingly advanced forms, religious content loses its significance and is often rejected. Weber's views are therefore characterized by complexity and point to a new kind and direction of interaction between religion and economics. To a certain extent, one could say that Weber reverses the vector of the relationship between base and superstructure, to which Marx drew attention. We can add that bringing the concept of secularization to the forefront emphasizes this direction of interaction, which positively correlates with the Marxist approach. R. H. Tawney [2] later referred to Weber's views, but he somewhat modified the concepts of the Heidelberg scholar. In his considerations, he emphasized not Calvinism but Protestant religions and highlighted individualism's role.

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The breakthrough in studying the relationship between religion and the economy occurred in the 1970s and 1980s when the theory of rational choice was applied in the field of religion. The first significant publication in this area was the article by C. Azzie and R. Ehrenberg [3], which presented a mathematical model that included the functioning of a household composed of a husband and wife and their participation in religious activities alongside their consumption of goods. The model also analyzed the distribution of time between professional work and participation in religious services in different periods of a person's life. The following year, G. Becker's [4] work on applying rational choice concepts in various areas of human activity, including religion, was published. These threads were further developed by G. Stigler [5], who drew attention to the significant similarity between the behaviour of participants in market exchange and the behaviour of adherents of various religious cults. Both have a repetitive and voluntary character and are associated with maximizing benefits.

L. Iannaccone, in his several highly influential works [6, 7, 8], pointed out the existence of a unique religious market whose functioning is determined by demand and supply. This new conceptual framework has led to fruitful research, and currently, the relationship between religion and the economy cannot be considered without the concept of the religious market. At the same time, every market is subject to certain regulations, including the religious market. M. Chaves and D. Cann [9] were the first to address this issue, introducing a series of characteristics and measures for regulating such a market by state structures. Among other things, the authors noted that in extreme cases, authorities could appoint leaders of various denominations and create diverse "incentives" to increase participation in the services of those religions supported by the state. "Blue laws," which restrict the activities of stores on Sundays and holidays in some states of the USA, play a significant role in the functioning of both religious associations and trade. Many Islamic countries have similar but much more far-reaching regulations (Barro and McCleary[10]). J. Gruber and D. Hungerman [11] also dealt with issues related to "blue laws." P. Froese [12] wrote about the position of religion in communist countries, presenting an analysis of the market subject to severe pressure. I. Johnson [13] addressed the issue of the situation and development opportunities for different religions in communist China.

Numerous studies have also focused on the interaction between domi-

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nant religions such as Judaism, Islam, Buddhism, or Hinduism in certain countries worldwide and their economic systems. The role of the Jewish faith in the alphabetization and the broad-based cultural capital development of Jews has been noted by M. Botticini and Z. Eckstein [14], Grosfeld et al. [15], and N.D. Johnson and M. Koyama [16]. T. Kuran [17, 18] addressed the Muslim world, emphasizing the deficiencies in stable law and social capital that could serve economic development in many Muslim countries. J.I. Israel [19], E. Chaney [20, 21], and J.L. Berggren [22] also researched this religious-cultural area. Meanwhile, V. Mironova [23] focused on the functioning of radical Islamic groups, using the framework of the religious market in her explanations. S. Iyer [24] explored Hinduism and Buddhism in their relationship with economic development. M. Hout and C.S. Fisher [25] have studied the growing and increasingly influential group of so-called "nones," that is, people who do not belong to any denomination but may show some religious tendencies or be agnostics but not atheists.

A new research trend that has emerged mainly in the last two decades, based on the concept of the religious market as a lasting theoretical achievement, refers to the ideas presented by Weber in his considerations on the influence of Protestant ethics on the economic development of society. S.O. Becker and L. Woessmann [26] examined the archives of the Kingdom of Prussia from the second half of the 19th century in terms of literacy and wealth (measured by the amount of taxes paid) of residents in different regions of the country and compared this data with information on the religion they practised: Protestant and Catholic. This research showed a positive correlation between Protestantism and literacy and wealth, suggesting support for the thesis that Protestantism generates higher social capital. However, it is unclear whether the causal relationship between Protestant denominations and economic growth is one-way. T. Boppart et al. [27, 28] referred to the school system analysis in Switzerland at the end of the second half of the 19th century; while Ch. Basten and F. Betz [29] and J. Spenkuch [30] examined the attitudes of Catholics and Protestants towards leisure time in Switzerland and Germany, obtaining results indicating that Protestant believers work longer and are more willing to engage in work. The importance of religious freedom for economic development is emphasized by K.A. Khan, D. Aigerim and Y. Wu [31].

The works of R.J. Barro and R.M. McCleary [32, 33, 10] and McCleary [34] have had a particular influence on the topic we are discussing. Especially

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in their 2003 article, the authors attempted an unprecedented analysis based on data from the World Values Survey and the International Social Survey Programme to investigate the relationship between religious activity, measured by regular attendance at religious services and belief in basic religious truths, and economic growth, as measured by per capita gross domestic product. The results they obtained are significant. First, they indicate that as belief in heaven and, similarly, belief in hell (at a constant level of religious service attendance) increases, economic growth also increases, with belief in hell having a slightly stronger impact on this growth. Second, increasing religious service attendance (at a constant level of belief in heaven and hell) causes an economic slowdown.

Barro and McCleary treat formalized religion as analogous to a company or corporation; they argue that religion has a production function, in which the main input is attendance at religious services and the main output is beliefs. Religion is, therefore, more efficient the more beliefs it produces in relation to the input of attendance. This explains the negative impact on the economy of increasing attendance levels without a corresponding increase in spiritual intensity; in this case, resources that could be used in different sectors of the economy are depleted without compensation. This phenomenon does not seem to be offset by the presumed creation of social capital through the faithful's physical engagement and greater attendance at religious meetings. The ultimate effect of religion on the economy, according to Barro and McCleary, is difficult to assess, as it depends on the net result of the factors mentioned above (belief in heaven and hell and attendance at religious services) and is primarily influenced by the efficiency of religion. Barro and McCleary's research has had a particularly strong impact and is now one of the main points of reference for further discussions in this area.

The results of the brief literature review in this section show that religion has the potential to impact economic growth through various mechanisms. The Protestant work ethic, which emphasizes hard work, thrift, and saving, is an example of religious beliefs that can lead to prosperity and economic development. Religious organizations can also build social networks, creating opportunities for people to build social capital, leading to increased trust, cooperation, and collaboration, ultimately leading to more significant economic growth. Education and training opportunities provided by religious organizations can also enhance human capital, contributing to economic growth. Furthermore, religious groups can foster entrepreneurial spirit and create business opportunities,

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leading to economic growth. Religious groups operate in a market-like environment, and competition among religious groups can lead to innovation and efficiency, contributing to economic growth. State intervention in the religious market can also regulate and facilitate the growth of certain religious organizations, which can impact economic growth. However, the relationship between religion and economic growth is complex, and the impact can depend on various factors, such as the efficiency of religion and the intensity of religious activity.

THE INTERSECTION OF RELIGION AND ENVIRONMENTALISM: A GLOBAL OVERVIEW

The issue of the impact of religion on the natural environment encompasses several issues, which include: 1) reactions, occurrences, and recommendations of the governing bodies of religious associations and organizations grouping representatives of these religions, 2) the theological corpus of individual beliefs allowing them to develop a specific eco-theology, and 3) the practice of religious communities, which allows them, through the development of faith and the construction of social capital, to be more or less open to environmental issues. P.J. Posas [35] also points out the wealth of religious communities as an important factor in their influence on a given country's social awareness and environmental policy.

The first expressions of concern about the state of the Earth's ecosystems by religious leaders dated back to the same period when the Club of Rome was preparing its famous publication "Limits to Growth" [36]. As early as 1970, Pope Paul VI, in his speech to FAO, addressed ecology in such a clear way for the first time in the history of the papacy. References to this subject can also be found in the apostolic letter of Paul VI Octogesima adveniens [37], the encyclicals of John Paul II Redemptor hominis [38], Solicitudo rei socialis [39], Centesimus annus [40], and the encyclical Caritas in veritate [41] of Benedict XVI. The first papal document devoted exclusively to environmental concerns was the letter of John Paul II on the 23rd World Day of Peace in 1990. The most significant document of the Catholic Church relating to the state of the environment and climate change is the encyclical Laudato si [42], in which Pope Francis treats nature as a gift of God that is part of the order of love. The pope draws attention to the immanence of the Creator in nature and writes that the redemption of humanity by Christ is also the redemption of all nature. Francis also formulates the thesis of a new category of sin, namely ecological sin.

Other Christian churches also contribute to the debate on protecting the environment. The position of the World Council of Churches is particularly noteworthy, as its interest in ecology dates back to 1966 (cf. D. McFee [43]).

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The Council has developed a position in which the issue of environmental protection is linked to social justice issues. The position of the Patriarch of Constantinople Bartholomew I, also known as the "Green Patriarch," is also noteworthy. He consistently emphasizes the need for spiritual transformation that enables effective environmental protection (cf. M.G. Sereti [44]). The Lutheran World Federation has also been consistently engaged since the 1970s, under the slogans of concern for the poorest, social justice, and the protection of human rights, in actions to improve the quality of the environment and protect against climate change. Noteworthy in this context is the development of RBA (right-based approach) and L2G (local to global approach) initiatives; issues related to environmental quality are addressed, among others, in the RBA Annual Report from 2021 [45].

The issue of the natural environment has been addressed by Reformed churches for over three decades. Attention was first drawn to these issues in the declaration "Peace, Justice and Integrity of Creation" during the meeting of the World Alliance of Reformed Churches in Seoul in 1989, and the Confession of Accra in 2004 was also significant. The World Communion of Reformed Churches, established in 2010 to replace the Alliance, draws attention to the preservation of God's creation and places ecological issues in the context of an economy enslaving humanity, leading to poverty and unemployment. The last General Council of this organization was held in Leipzig in 2017 (meetings take place every seven years) and addressed ecological issues, including climate change, in Chapter 18 of the Public Witness Report (https://www.ekokoscioł.pl). Some evangelical communities hold an ambivalent or negationist position on climate change (in this regard, see, for example, D.C. Barker, D.H. Bearce [46], N. Smith, A. Leiserowitz [47], R.G. Veldman [48], W. Carr, M. Paterson, L. Yung, and D. Spencer [49] take a more cautious approach to this thesis.

Non-Christian religions such as Islam, Judaism, Buddhism, and Hinduism have also spoken out on issues related to environmental cleanliness through their representatives [50, 51]. The Islamic Declaration on Global Change, adopted in Istanbul in 2015 at a conference co-organized by the Islamic Foundation for Ecology, is particularly noteworthy. The declaration is rooted in Islamic concepts of Creation and emphasizes the importance of spiritual struggle to defend environmental quality. A similar declaration titled "One Earth Sangha: The Time to Act is Now," which recognized the urgent need to engage in the fight against climate change, was also issued by the Buddhist community in the same year; the declaration was signed, among others, by the Dalai Lama. In 2015, Hindu leaders also defended the climate, which was accompanied by a motto from the Atharva Veda (12.1.12): "The Earth is my mother, and I am her child." The statement referred to an earlier declaration by Hindu leaders expressing concern about the state of the environment, which was the first in

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the history of Hinduism and was issued six years earlier. The positions mentioned above were related to the COP 21 climate conference held in Paris in 2015. The fact that they agree on the fundamental thesis of the adverse effects of climate change caused by humans and their threat to future generations, as well as the urgent need to counteract these changes, indicates the closeness of these different religions in ensuring a good future for future generations.

An interesting and leading to - not always unambiguous - conclusions endeavour is to trace those elements of the teachings of particular religions that seem to positively correlate with active concern for the state of the natural environment and the fight against climate change. A ground-breaking series of publications on this topic was the Religions of the World and Ecology series published by Harvard University Press from 1997 to 2004, edited by Tucker and Grim. The individual volumes of the series were devoted, among others, to Christianity, Islam, Judaism, Buddhism, and Hinduism (for example, M.E. Tucker, D.R. Williams, and J. Grim [52], D. Hessel, R. Ruether, M. Tucker, and Grim [53], H. Tirosh-Samuelson [54], R.C. Foltz, F.M. Denny, A. Baharuddin [55]). Also noteworthy are The Oxford Handbook of Religion and Ecology edited by R.S. Gottlieb [56], W.A. Bauman, R. Bohannon, K.J. O'Brien [57], Routledge Handbook of Religion and Ecology, Routledge edited by W. Jenkins, M.E. Tucker, J. Grim [58], and J. Hart [59].

Research on the relationship between religious activity - broadly understood as a set of beliefs, rituals, symbols, cosmological beliefs, as well as the functioning of the relevant structures and individuals belonging to a given denomination - and concern for the environment and climate refers in particular to the theological, ontological, and soteriological concepts specific to each religion. Among the great religious systems, two groups are emerging; the first group includes the so-called Abrahamic religions, also referred to as salvific religions, and the second group includes Asian religions such as Buddhism and Hinduism, also known as religions of rebirth [60].

As early as the early 1980s, Lynn White put forward a hypothesis about the negative influence of Judeo-Christianity on the attitudes and behaviours of believers towards the challenges of modern environmentalism. Lynn emphasized biblical texts such as Gen 1:28, which indicate human domination over the nature entrusted to him by God or even divine encouragement to exploit it. In reality, the Bible text manifests many traditions, including wisdom and prophetic traditions. Each of them shows affirmative elements in relation to the natural world as God's work. Similar messages can be found in the Book of Psalms, with a particular example being Psalm 24. The Christian dogma of the Incarnation also points to the value that creation has in the eyes of God, which deserves to be united with Him; this contrasts with the dualistic views of the Manicheans, who devalue the material world.

Some scholars have criticized the focus on the theology of redemption,

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which has overshadowed the theology of creation for both Protestants and Catholics over the past five hundred years, as problematic and not conducive to environmental care. According to Barbour, an excessive emphasis on the transcendence of God over his immanence in nature is also not helpful in preserving the environment [61]. S. McFague [62] highlights that all major Christological concepts support respect for nature, while M.J. Wallace emphasizes the importance of the theology of the Holy Spirit. Many Christian thinkers feel responsible for the negative environmental changes in Western civilization and have a critical attitude towards their spiritual tradition. Such criticism is not generally observed among representatives of Judaism and Islam, the two other religions that appeal to the Abrahamic tradition.

Jewish thought was for a long time preoccupied with issues of identity and reflection on anti-Semitism and the Holocaust. It was not until the 1960s and 1970s that changes occurred, and the organizational expression of this was the Shomrei Adamah movement; in 1993, the Coalition on the Environment and Jewish Life was established. Typically, Judaism, like Christianity, is associated with a dominant attitude towards nature. However, as Eilon Schwartz notes [63], in Jewish religious thought, there are also three other currents: the partnership between human beings and the natural world, radical amazement at the magnitude of creation (as seen in the theology of Rabbi A.J. Heschel), and the mysticism of Lurianic Kabbalah, which is undoubtedly related to Neoplatonic concepts. These currents and certain approaches contained in the Mishnah suggest a sense of closeness - even unity - with nature. These traditions are, therefore, an understandable basis for Jewish concern for the natural environment.

In Islam, responsibility for the lamentable state of the global environment is attributed to Western civilization and, therefore, to Christianity. According to its defenders, Islam takes a different position (for example, Ozdemir in the above mentioned volume, Islam and Ecology, Foltz et al. [55]). The Qur'an and Hadith emphasize the special role of the world created by Allah; nature not only serves human beings, but it is also a magnificent image of God, a sign of His presence and action, and in itself, like a Muslim, that is, subject to God, so it deserves respect. In various stories, the Prophet shows concern for nature, such as limiting the consumption of the necessary water for life. He treats living creatures inhabiting the Earth as an umma, a community similar to the human community. Thus, humans act as deputies to rulers over creation. The ethical and legal relationship with nature in Islam is complicated in this context. It is included in the widely understood concept of sharia, including religiously and culturally entrenched issues with significant references to tradition. However, the economic and environmental policies of Muslim states, for which the main goal is rapid economic growth, means that ecological justice theories often diverge from practice [64, 65].

We encounter a similar situation in various regions of the world, to a

significant extent in countries of East and Southeast Asia, where different religious traditions dominate. These traditions include religions and soteriologies originating from the Indian subcontinent, characterized by concepts of karma and reincarnation, and those from China, such as Taoism and Confucianism. In Hinduism and especially Buddhism, there is a sense of community with all living things. The Four Noble Truths and the Eightfold Path in Buddhism emphasize the importance of working towards the cessation of suffering and advocate renouncing gains that lead to injustice. It is easy to see how this leads to a concern for nature; a dramatic expression is the ordination of objects in the natural world, such as old trees. In Chan Buddhism, the entire natural world is even treated as Buddha (Edelglass [66]). This creates great potential for developing ecological thought in countries where Buddhism is significantly present. However, economic considerations and the expectation of the people in this region for a rapid and significant improvement in their standard of living make implementing these principles in public life difficult.

The concept of heavenly peace in Chinese religious and philosophical traditions is interesting and ambiguous. Heavenly peace is a state of complete harmony in the human world and the cosmos. Pursuing this state is expressed through a highly elaborate set of rituals in human relationships across all areas of life. Like Hinduism, a ritual properly performed seems to have cosmic and state-building significance, as it maintains the whole world in a way that aligns with eternal laws. From an ecological perspective, this focus on pursuing an eternal balance is promising. However, it seems less straightforward on closer examination because the pursuit of peace is associated with absolute obedience to authorities and power, which is recommended even when those in power make mistakes. Modern-day China is a place where this ambivalent relationship with power is very visible, and the state of the environment is concerning, although efforts are being made toward more sustainable development [67, 68, 69].

In summary, most religious traditions recognize the importance of environmental protection and the growing issue of climate change. On the other hand, numerous authors point to the special role of religion in strengthening ethical attitudes towards climate change [35, 70, 50], as well as significance of religion in building social capital and education [71, 72]. J. Koehrsen, J. Blanc and F. Huber [73] draw attention to a phenomenon they call "greening religion," where religions become more environmentally friendly and interested in fighting climate change. R.B. Haluza De-Lay [74] and [75] conduct a sociological analysis of the involvement of religious groups in environmental protection. In the course, they identify four main barriers limiting such engagement. These are 1) barriers related to the promoted paradigms that discourage fighting climate change, 2) applicability barriers, which place environmental efforts behind other priorities (such as hunger or violence between nations), 3) barriers related to social criticism, which reduces the problem to merely personal feelings and

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subjective opinions, and 4) barriers resulting from incorrect beliefs and lack of proper knowledge about climate change.

The above remarks present an ambiguous picture of the relationship between religious commitment and engagement in environmental protection and climate change mitigation. Most religious communities recognize the threats and, to varying degrees, engage in actions to protect nature from devastation. However, influential groups also reject the anthropogenic nature of climate change and, for eschatological reasons, refrain from supporting pro-environmental behaviours. These issues are discussed in the context of Christianity by R.G. Veldman [48], K. Poole [76], J.M. Luetz and Leo [77], and P. Tyson [78]. A vast panorama of case studies is included in the book edited by R.G. Veldman, R.G. Szasz, and R. Haluza-DeLay [79].

THE INTERSECTION OF ECONOMICS, ENVIRONMENT, AND RELIGION: A COMPLEX RELATIONSHIP

In this section, we would like to draw attention to the fact that religion's influence on the economy and the environment is an integral process that can be combined. In fact, it is natural that religious communities' impact on the environment is carried out through the medium of the economy and the economic policy of a given country or federation of states. In this context, the concept of the so-called Environmental Kuznets Curve (EKC) combines economic growth with the state of the environment. This concept first appeared in an article by G.M. Grossman and A.B. Krueger [80] on the environmental impacts of the North American Free Trade Agreement, presented at a conference on free trade between the United States and Mexico. Referring to Simon Kuznets' concept from the mid-1950s on the possible relationships between a country's level of economic development and the level of income inequality, the authors suggested that a similar relationship also exists between economic growth measured by GDP per capita and the level of degradation of the natural environment (e.g. the amount of CO2, NOX or methane emissions).

The typical shape of this curve, which initially increases and then, after reaching its maximum value, decreases - resembling an inverted letter U - is influenced by three fundamental effects: a) the scale effect, which contributes to an increase in environmental pollution, with this pollution being proportional to economic growth, b) a technological effect, which means that innovative technological solutions in production and process management lead to less environmental degradation, c) a composition effect indicating the beneficial impact on the natural environment of changes in the structure of gross domestic product (GDP), expressed as an increase in the percentage share of those sectors of the economy, such as services or new industrial sectors, that generate less

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pollution. The shape as mentioned above of the environmental curve is associated with three periods in the history of economic development. The first of these periods, characterized by the dominance of agriculture and low-cost craft production, ended in the second half of the eighteenth century with the beginning of the industrial revolution. The second period was a time of intensive industrial development based largely on the use of "dirty" energy derived from hydrocarbons; this period lasted until the turn of the 20th and 21st centuries. The third period is characterized by the use of "clean" energy sources based on innovative technologies; during this period, the level of environmental pollution, after a brief stabilization at a high level, begins to decrease significantly.

The nature of the environmental Kuznets curve and the processes affecting its shape have been analyzed since the early 1990s. T. Panayotu [81] was the first to use the term "environmental Kuznets curve". Economic models justifying the curve's shape were presented soon after by R. Lopez [82], J.K. Boyce [83], J.K. Boyce and M. Torras [84], K.E. McConnell [85], and J. Andreoni and A. Levinson [86]. B.R. Copeland and M.S. Taylor [87] considered environmental quality a normal good, meaning that demand for such a good increase as income rises. According to these authors, theories explaining the shape of the environmental Kuznets curve are based on one of the following assumptions: 1) the assumption that economic development initially relies mainly on physical capital, and later depends more on human capital, 2) the belief in increasing marginal elasticity of environmental damage with income, 3) the assumption that changes in economic and environmental policy occur not continuously but in a discontinuous manner, 4) the belief that as the wealth of a country and society increases, the benefits of reducing environmental devastation also increase. It is worth noting that the shape of the environmental Kuznets curve can also be considered in the context of Maslow's hierarchy of needs: only after satisfying the most basic biological needs do people turn to issues that are not strictly related to securing the foundations of their existence, such as environmental quality issues.

Attempts to classify models explaining the theory of the Kuznets environmental curve have also been made by M. Kijima et a. [88] and later by M. Shahbaz and A. Sinha [89]. Note that in recent studies on the scale effect, the following articles were devoted to this topic: S.A. Sarkodie [90], and Shahbaz et al. [91], among others. In turn, the technological effect associated with greater use of renewable energy sources is the subject of articles such as Erdogan et al. [92], Murshed et al. [93], and Shahbaz et al. [94]. Interesting results regarding the composition effect have been presented in articles such as Hu et al. [95], Sultan et al. [96], and Zhang et al. [97]; they emphasize the importance of the urbanization phenomenon in China and its impact on the development of those sectors of the economy that are more environmentally friendly.

Therefore, the environmental Kuznets curve is the subject of numerous

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studies in environmental economics and ecology. It combines two domains essential to modern society's functioning: the economy and the natural environment. It is easy to see that this relationship can be transferred to the area of the relationship between the impact of religion on the economy and the environment. Both of these issues are, of course, related to each other, although they are usually treated separately in the literature. It should be remembered that the main medium through which religious communities influence the nature around us is the economic system with its complex networks of interdependencies.

Undoubtedly, religious denominations, both at the central level and at the level of local communities, impact their surrounding social and economic environment. They can do this in various ways: by promoting the correct values that support engagement in protecting nature, as well as through activities that influence consumer attitudes and lobbying for pro-environmental decisions by political authorities. It should be noted that both consumers and employees, as well as business managers and political decision-makers (who are often the same individuals in different economic and social roles), are, in many cases, members of religious communities; it can therefore be expected that as participants in market processes, they will implement the demands and programs of their denominations in the field of ecology. On the other hand, as noted in the literature cited above, some religious groups, such as radical evangelical communities, either question the anthropogenic nature of climate change or incorporate these changes into an apocalyptic vision of history, thereby denying the need to engage in the protection of the natural environment and the fight against climate change. Also, in the past, many religions, such as Christianity, appeared to be not fully aware of the ecological consequences of uncritically approved economic development. Therefore, it is not easy to provide a clear assessment of religion's overall impact on the environment.

In this context, the studies by Barro and McCleary on the influence of different aspects of religiosity on economic growth can play an important role. If these results are compared with the concept of the environmental Kuznets curve, a hypothetical relationship between selected variables characterising religious beliefs and the state of the natural environment can be obtained, for example, by the level of greenhouse gas emissions [98]. These relationships, namely the relationship with belief in heaven, belief in the existence of hell, and attendance at religious services, also take the form of a U-shaped curve. This means that as the values of these variables increase, environmental degradation initially increases and then decreases after reaching a certain maximum point. We are thus dealing with a phenomenon similar to the impact of economic growth on the environment. The results of analysing these relationships, assuming the truth of the environmental Kuznets curve hypothesis, lead to optimistic conclusions. Religious involvement - at a high level of economic development of a given country - translates into improving the quality of the environment.

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In summary, religion can influence the environmental Kuznets curve in various ways. First, religious communities can promote values that support engagement in protecting the environment, such as stewardship, respect for nature, and social responsibility. This can influence consumer attitudes and lobby for pro-environmental decisions by political authorities. Second, religious communities can play a role in shaping the composition effect of the EKC. For example, some religious communities promote sustainable agriculture, eco-tourism, and renewable energy sources, which can contribute to reducing environmental degradation. Third, religious beliefs can impact the relationship between economic development and the environment. For example, the belief in heaven, belief in the existence of hell, and attendance at religious services have been found to follow a U-shaped curve, meaning that as the values of these variables increase, environmental degradation initially increases and then decreases after reaching a certain maximum point. Thus, high levels of religious involvement at a high level of economic development in a given country may translate into an improvement in the quality of the environment. However, it should be noted that some religious groups may also have beliefs or practices not conducive to environmental protection. For example, some radical evangelical communities may question the anthropogenic nature of climate change or deny the need to engage in the protection of the natural environment. Thus, religion's overall impact on the environment is complex and multifaceted.

CONCLUSIONS

The article analyzes the relationship between religious faith and economic growth, as well as between religious faith and the quality of the natural environment. The research indicates that both of these relationships are closely related, and the environmental Kuznets curve provides the link between them. The theoretical models suggest that, under the conditions of a developed market economy, an increase in belief in heaven, an increase in belief in the existence of hell, and an increase in attendance at religious ceremonies can have a positive impact on the quality of the environment. Furthermore, belief in the existence of hell appears to have a more decisive influence than belief in heaven. These propositions are based on empirical research by Barro and McCleary and the EKC hypothesis.

Therefore, engagement by religious leaders and local communities in the fight against environmental degradation and climate change is highly desirable and expected. Cooperation among all faiths that acknowledge the anthropogenic nature of the environmental catastrophe is also desirable. Indeed, the

actions of leaders and members of individual religious groups can produce more significant results in cooperation with various structures at the local, national, supranational, and global levels.

The research also indicates that, in the case of developed countries, the improvement of the quality of the environment is facilitated by the deepening of individual religiosity correlated with universal ethical systems that include respect for nature as created by God and being His image. However, the case of developing countries is more complex, as their priority is often to improve the quality of life for their residents, often at the expense of the natural environment. Theoretically speaking, these countries are located on the upward slopes of their environmental curves and curves illustrating the impact of religious values on the state of the environment.

Indeed, due to the partially theoretical nature of the considerations presented in this article, empirical research is necessary to confirm the conclusions drawn. Such research, taking belief in heaven, belief in the existence of hell, and attendance at religious services as independent variables, should investigate the impact of these beliefs and behaviours on variables such as the level of CO2 and NOX emissions or deforestation.

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