

SUSTAINABILITY AND ISLAMIC ENVIRONMENTAL PRINCIPLES FOR AGRIBUSINESS

المبادئ البيئية الإسلامية لأعمال الزراعة التجارية

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ABSTRACT

When seeking the practice of environmental sustainability in relation to agribusiness between different cultures, the theme can become complex, requiring guiding principles. This research is justified because agribusiness, in relation to environmental sustainability, is an extremely important subject that involves complex legal relationships. In this context, the hypothesis proposed here was that it would be possible to develop Islamic environmental principles for agribusiness. Based on this hypothesis, it was possible to draw as objective of this research “to analyze interfaces between the Islamic and Brazilian environmental law seeking to identify and characterize Islamic environmental principles for agribusiness.” This research was classified as qualitative, with deductive logic to compare the intermediate results and inductive logic for inferences. In conclusion, the following Islamic environmental principles to conduct agribusiness were found: What is expressly forbidden by Allah in the Holy Qur’an and Sunna will not be done in agribusiness; What is harmful to the body will not be consumed or marketed; What Islamic fatwas condemned is rejected in

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agribusiness; Animals are considered rational beings, but with limited rationality; The product coming from the suffering of animals does not serve as food or another application; Preference should be given to that which causes less damage to the natural environment.

Keywords: Environmental Law; food; halal; Islamic Law; Muslim.

SUSTENTABILIDADE E PRINCÍPIOS AMBIENTAIS ISLÂMICOS PARA REALIZAR AGRONEGÓCIO

RESUMO

Quando se busca a prática da sustentabilidade ambiental em relação ao agronegócio entre culturas diferentes, a temática pode se tornar complexa necessitando de princípios norteadores. Justifica-se esta pesquisa por se tratar o agronegócio, em relação à sustentabilidade ambiental de um tema de extrema importância que envolve relações jurídicas complexas. Nesse contexto, a hipótese aqui proposta foi a de que seria possível desenvolver princípios ambientais islâmicos para a realização do agronegócio. Foi possível traçar como objetivo da presente pesquisa “analisar interfaces entre o Direito Ambiental islâmico e o brasileiro, buscando identificar e caracterizar princípios ambientais islâmicos para realizar agronegócio”. Esta pesquisa foi classificada como qualitativa sendo aplicada a lógica dedutiva na comparação dos resultados intermediários e a lógica indutiva para as inferências. Foram encontrados como princípios ambientais islâmicos para realizar agronegócio: O que é expressamente proibido por Allah no Sagrado Alcorão e na Sunna não será realizado no agronegócio; O que faz mal ao corpo não será consumido ou comercializado; O que é desaprovado pelas fátuas será desaprovado no agronegócio; Os animais são considerados seres racionais, porém, com racionalidade limitada, produto oriundo do sofrimento de animais não serve como alimento ou utensílio; Dar-se-á preferência ao que menos agredir o meio ambiente natural.

Palavras-chave: *alimento; Direito Ambiental; Direito Islâmico; halal; muçulmano.*

نبذة مختصرة

إن تحقيق الاستدامة البيئية التعددية يمكن أن نجده في مناطق مختلفة مثل، الأعمال الزراعية التجارية التي تمارس ضمن مختلف الثقافات. إن الأعمال الزراعية التجارية هو مصطلح تم صياغته لتعريف إدارة أعمال الإنتاج الزراعي، وهو يشمل جميع وكلاء الطعام والألياف ذات القيمة. وبينما نحن نبحث عن ممارسة الاستدامة البيئية في علاقة الأعمال الزراعية التجارية في الثقافات المختلفة نجد الفكرة يمكن أن تصبح معقدة. ويتطلب ذلك المبادئ التوجيهية للتنسيق بين الاهتمامات المتباينة من خلال الممارسات التعددية. إن البحث المطروح له دواعيه حيث أن الأعمال الزراعية التجارية في علاقة مع القضية البيئية – هو موضوع بالغ الأهمية للبرازيل ولمجتمع العالم الإسلامي. ومما لا شك فيه، أن كثيرا من الأشخاص سوف يستفيدون إذا أصبحت الأعمال الزراعية التجارية أكثر توافرا واستدامة. إن هذه الورقة تهدف إلى تطوير المبادئ البيئية الإسلامية، وصدوره من القانون الإسلامي وتطبيقاته للأعمال الزراعية التجارية. إن جميع المبادئ البيئية الإسلامية مأخوذة من القانون الإسلامي، هذه المبادئ يمكن للبرازيل والبلاد الأخرى استخدامها لزيادة كفاءة وفاعلية الأعمال الزراعية التجارية. إن البحث المطروح يستقصى نقطة الالتقاء بين القانون البيئي البرازيلي والإسلامي من أجل تعريف ووصف المبادئ البيئية الإسلامية لأداء الأعمال الزراعية التجارية. وهذا البحث المطروح مصنف كطريقة نوعية، حيث تم تطبيق الاستنتاج المنطقي في المقارنة بين متوسط النتائج والاستنتاج المنطقي للاستدلالات. وفي الخاتمة، كنا قادرين على إيجاد المبادئ البيئية الإسلامية لأداء الأعمال الزراعية التجارية. وما حرم الله تعالى صراحة في القرآن الكريم أو في السنة النبوية فلن يُعمل به. وما كان ضاراً للجسد أو للصحة فلن يُستهلك أو يُسوق، وإن ما تستهجنه الفتاوى الإسلامية لن تعتبر الحيوانات كائنات عقلانية، ولكن ذات عقلانية قاصرة. والمنتهج الآتي يقبل في الأعمال الزراعية التجارية. من معاناة الحيوانات لا يُقدم كطعام أو غير طعام. ينبغي إعطاء الأفضلية لما هو أقل ضرراً على البيئة.

INTRODUCTION

The interest in comparative Environmental Law does not reside only in the legal aspects strictly considered, as it can mean different outcomes, such as the effectiveness of democracy and sustainability. In these terms, agribusiness between different human cultures is a fertile field for the practice of ethics, citizenship and sustainability.

The great commercial interest of Brazil and Islamic countries with regard to agribusiness has been shown by the Brazilian and international media over the past years. However, alignment in agribusiness between different cultures can be somewhat complex, involving several factors. The basic question in relation to agribusiness is to answer what leads one country to buy from another. It is evident that traditional factors such as price, consistency in supply and quality will always be present in

agribusiness; however, in this research, different perspectives were sought for this commercial purpose.

The research proposal presented here considers that agribusiness between countries depends heavily on the Environmental Law of each country involved in commercialization. Here, agribusiness is considered an “exchange” where the environment is also part of what is traded. Thus, the implicit environment negotiation in agribusiness is made from the harmonization or not of the environmental rights identities of each country involved. An example of this is the halal meat trade between Brazil and Islamic countries. At this point, no one talks about price, consistency in supply and quality, but about harmony of environmental rights identities in agribusiness. This is the focus of this research, which seeks, in general terms, different perspectives to make Brazilian agribusiness more effective in the face of the Islamic culture.

Based on this, it was sought to find Islamic environmental principles that could facilitate agribusiness between non-Muslim countries and the Muslim community spread around the world. These principles, according as they were discovered and analyzed in this research, appeared as having deep roots in religion, in the legal area, as concepts notably different from those practiced in the West.

This research is justified because it deals with agribusiness in relation to the environmental issue of an extremely important subject for Brazil, western countries and the world Muslim community. Many people may benefit in the case of a more harmonious and lasting agribusiness.

In this context, the hypothesis proposed here was that it would be possible to develop Islamic environmental principles in order to conduct agribusiness. Islamic environmental principles are understood as those which derive from Environmental Law, and these principles could be used by Brazil and other countries to increase agribusiness efficiency.

Based on this hypothesis, it was possible to determine as the objective of this research, “to analyze interfaces between the Islamic and Brazilian Environmental Law seeking to identify and characterize Islamic environmental principles for agribusiness.”

1 RESEARCH METHODOLOGY

It is a complex research due not only to its degree of difficulty but also to the large number of variables presented by it. To resolve the issue

of the large number of variables, a survey was conducted according to Spadotto (2015, p. 54-55), which sought to adopt three variables that were later called interfaces. This survey looked for terms that were repeated in scientific articles and used by the media in general, within the period from January 13, 2014 to October 17, 2018. Also, the researchers' legal experience, both in Brazil and in Islamic countries, interfered with the search for these interfaces, as in research of this nature it is not possible to completely separate the interference from the researchers, which is even accepted. The details of this survey are in the item "description of materials and methods."

Viability or not of these interfaces for the purposes of the research would be proven empirically (following the lines of research in the legal area) during its progress. Thus, these interfaces would be valid if they allowed characterizing the Islamic Environmental Law identity in relation to the Brazilian Environmental Law identity. Throughout the research, it was observed that it would be necessary and possible to use these interfaces in the sense of being or not present in the law identities mentioned above, as shown by the intensity of these presences. In this way, for example, the religion interface changed the Islamic Environmental Law identity not only because of its presence, but also because of the intensity of its presence, clearly differentiating itself from the Brazilian Environmental Law identity. The sequential logic of the actions in this research was : to reduce the number of variables present in the theme by using the systematic choice of three variables – called interfaces –, namely, environment concept, legal functionality, and religion; to analyze these interfaces in the Islamic and Brazilian Environmental Law identities; to compare these identities based on the presence and intensity of presence of these variables, and to establish links between these identities with agribusiness, as a way of applying the knowledge produced in this research.

For better positioning in relation to the research methodology, it was decided to divide it into items and sub-items. In this way, the reader will be able to find the research points more easily, even when reading the final pages of this article.

1.1 Description of materials and methods

This research was classified as exploratory as the lines of Gil (2010) and Severino (2007), and qualitative according to Marconi & Lakatos

(2010) and Michel (2015); in addition, a survey was conducted according to Spadotto (2015). The data collected were placed in matrices organized according to chronological order and by subject, allowing deductive reasoning, prior to induction (MEZZAROBÀ; MONTEIRO, 2014; SPADOTTO, 2015).

Deductive logic was applied to compare results; thus, the deduction was the link between the Islamic Environmental Law interface and the Brazilian Environmental Law identity. After the common points between the interfaces of each identity were established, including the intensity of the presence of each interface, inferences that could lead to the analysis and conclusions were sought by means of inductive logic (MEZZAROBÀ; MONTEIRO, 2014; SPADOTTO, 2015).

Environmental legislation was consulted in the following Islamic countries: Saudi Arabia, Egypt, Qatar, Kuwait, Morocco, Indonesia and Pakistan, and also in Brazil, always on official websites. The doctrinal material consulted covered any country where the subject of this research was present, and this was done using Arabic, English, Portuguese, and Spanish languages.

The research development was from February 10, 2017 to June 15, 2019. Data collection regarding fatwas with environmental themes was performed in the period from January 13, 2015 to October 17, 2018, that is, four years, approximately. Data collection regarding fatwas with agribusiness concepts from the Muslim perspective was carried in the period from December 20, 1998 to April 10, 2019.

Data were collected and organized according to provisional matrices, generating tables with essential information. Table 1 presents a summary of the distribution of fatwas with environmental themes found in the categories; Table 2 shows the relationship of fatwas with environmental themes found in the research in chronological order and subjects addressed, and Table 3 presents fatwas that characterize agribusiness from the Muslim perspective.

1.2 Nature and reference of fatwas

The Islamic Fiqh Council is an organ of the Muslim World League and has independent legal personality. This Council is made up of Muslim jurists and university professors from different countries who come together to answer questions about the Muslims' lives, to improve the interpretation

(not the content) of the sacred books, besides adapting the scientific development of the Muslim community in the world. Fatwas are decisions with normative value issued by the Islamic Fiqh Council, and, for being issued by that council, they have an international scope. Fatwas, therefore, affect all Muslims' lives around the world, in Islamic countries or not, affecting agribusiness as a consequence.

Although the term of Arabic origin *fiqh* (وقف) is also translated as jurisprudence, its real meaning is “to have knowledge of Islamic Law” or “to have knowledge of *Shari'a*.” Thus, *fiqh* (specific knowledge of Islamic Laws) is applied to the Holy Qur'an, Sunna, Ijtima and Qiyas, besides Fatwas.

Although fatwas and jurisprudence have the general significance of decisions, they have different meanings. Fatwas (ىوقف) are not jurisprudence with the same meaning applied in Brazil, for example, because the latter is the result of interpretations of human laws for society. On the other hand, fatwas are interpretations of the Words of Allah and the Prophet Muhammad – direct messenger of Allah – for society. A fatwa does not have the power to modify the Words of Allah and the Prophet Muhammad, but jurisprudence in Brazil can change a law in its application. Fatwas can also be related to the regulation of the application of a norm or principle described in the Holy Qur'an and Sunna. Based on the *fiqh* that Islamic Law is divine – including fatwas –, unlike jurisprudence in the West, these doctrines are different.

Two principles are debated when researching the equivalent position of a fatwa in Western legal systems: the Principle of Emanation and the Principle of Elaboration. The Principle of Emanation deals with from where the idea or the thought contained in fatwas derives, and the Principle of Elaboration shows who elaborates fatwas.

Considering the Roman-Germanic Legal System or even the Anglo-Saxon Legal System, the equivalent position of a fatwa is a relative issue; a fatwa would be above jurisprudence and even amendments to the constitution, ordinary laws, complementary laws, provisional measures, legislative decrees and resolutions – this based on the Principle of Emanation. However, in relation to its final elaboration, that is, who elaborates fatwas and from whom they originate – human beings –, a fatwa could have a position equivalent to an ordinary law, that is, based on the Principle of Elaboration.

Following these principles, a fatwa resembles a law in the West, more

than a case law, and must therefore receive scientific treatment as such; therefore, a fatwa must be cited and referenced as a law. As a result, a fatwa can be referred to as a law in the West.

2 INTERFACES AND THE ISLAMIC ENVIRONMENTAL LAW IDENTITY

In this topic, interfaces proposed for this research will be analyzed and discussed. It is important to highlight, again, that these interfaces can interact within the Islamic Environmental Law identity and also with the Brazilian Environmental Law identity. This interaction seeks to strengthen analysis and discussion.

2.1 Interface between the environment concept and the Islamic Environmental Law identity

Environmental responsibility for Muslims, even when living in non-Islamic countries, in addition to the social component, has a divine or religious component. Although this conceptual difference seems subtle, it represents a strong distinction in the practice of the environment concept, which radically interferes with the interface treated here. A very clear example of validating this argument is the position that Muslims express when defining the categories of fatwas. Thus, there are no environmental fatwas as a specific category, but they are environmental themes distributed according to several categories. By seeking to deeply understand the environment concept from the Muslim perspective, one seeks to meet the justification of this research, namely: to satisfy the need to harmonize the Brazilian Environmental Law identity with the Islamic Environmental Law identity in the legal sense and as motivator of international agribusiness.

In this regard, there is a difference between the environment concept in the Islamic Environmental Law identity in relation to the Brazilian Environmental Law identity. Observance of the Holy Qur'an has the character of applying responsibilities in view of the environment importance. Offending the environment in Islamic countries, then, is to contradict the Holy Qur'an in addition to contradicting society.

According to Souza (2012), in Islamic religious life, the environment is a place of devotion and expression of spirituality; thus, the obligation to preserve the environment is imposed. Based on this author and considering

the political inheritance of Islamic theology, it seems logical that the treatment given to the environment is also influenced by inheritance. Previously, Miranda (2010) established a relationship between monotheistic religions, Islam with nature among them; the author points out that “in Judaism, Christianity or Islam, references in the scriptures to the duty of protection that man has to all the works of God are not uncommon.” In this case, the emphasis should be given to Islam, since the application of the connection between the environment and the divine is imposed daily practice nowadays.

When it comes to protecting nature, Judaism, Christianity and Islam share similar interests; this is probably due to an original understanding of these religions that man would not survive without a balanced environment. Environmental theological discourses can vary from one religion to another, probably because they are influenced by cultural, geographical and political aspects, but the object is life in relation to the environment.

2.2 Legal interface and the Islamic Environmental Law identity

It can be interpreted that the unifying principle in Islamic law, and not in society, is a divine condition. Perhaps, and here is a point to be discussed, this is due to the Muslim understanding that society needs to be improved in relation to the Divine that is, and has always been, perfect.

Therefore, law, in the Muslim legal system, emanates from God and converges towards Him; thus there is no imperfection to be corrected, but it is possible to improve the human interpretation of the Divine Laws. It is observed that this concept differs fundamentally from the Civil Law or Common Law systems, since, in these, law comes from society and converges to it, and, therefore, it is not perfect. This is a practical view of Islamic law and may have other interpretations, but not relevant to this research.

At first, we observed there was some difficulty in the practical understanding of what Islamic Law is. Islamic Law is a theocratic right and not a secular right, that is, it is a legal system that is defined as having a sacred origin and nature. In this sense, according to Sourdel (1996), Islamic Law, or *Shari'a*, (شريعة, from Arabic language) governs the Muslims' practical lives in collectivity and individuality; therefore, the practicality of Islamic Law permeates the Muslims' lives in their social and environmental relations. Also, in this relationship between Islamic Law and the people,

their view of the former involves a sense of completeness in the norms; when researching why Muslims accept that these norms are complete and sufficient for their lives, it is inferred that the answer lies in the divine origin of Islamic Law. In this respect, *Shari'a* is a legal order that cannot be dissociated from faith and the set of rituals, beliefs, morals and Islamic thinking to be practiced.

When a legal system comes from society, whatever the historical condition, imposition of physical boundaries is established almost automatically. Thus, one speaks of Common Law and Civil Law legal systems and physical boundaries are established for their expressions, that is, countries are defined where they are valid. The question is how to impose boundaries on a legal system when it has a Divine origin. It is evident that in current practice this impasse is already resolved, since the position of the majority of society in a given country prevails; but in a scientific practice one cannot fail to envision a future where in a given country there is a balance in the number of people who tend to practice Islam and Christianity, for example. If so, which legal system will (or should) prevail? At a certain point in the practice of Islamic Law, it is necessary to apply the understanding that Allah does not recognize the borders created by men, making *Shari'a* a system that could go beyond the borders of States' sovereignty – as it is already the case in countries such as Germany and the Russian Federation.

The practice of Islamic Law establishes some basic points that corroborate the above position. The first point shows that *Shari'a* regulates the Muslims' relationship with Allah; the second point establishes the Muslims' duties to Allah; the third point indicates a relationship of justice and humanism among Muslims, since the payment of humanitarian aid, called *Zakat*, of 2.5% of wealthy Muslims' accumulated goods is made directly to the poor. Making an analogy with Brazilian Law and most of the current rights, the first point would be the individual's relationship with the State; the second point indicates the individual's duties for the State's full functioning, and the third point regulates the relationship between individuals.

Regarding the third point, Nasser (2012) indicates that *Shari'a* not only regulates *ibada* (worship), but also organizes *muamalat* (daily practices), that is, social interactions, family, commercial and economic relationships, and establishes criminal offenses. Therefore, it is observed that *Shari'a* considers human nature and its weaknesses when it raises the need for criminal offenses to comply with its normative precepts; thus, in both Brazilian and Islamic Law, compliance with certain rules by certain individuals depends on sanctions.

Another aspect of Islamic Law is its ecological view, as it covers the human species and all other species cohabiting on earth; in addition, there is the duty imposed on every Muslim to make *Shari'a* practical and effective. In this context it is important to highlight that in *Shari'a* animals are considered rational beings, but with limited rationality; this changes a lot when comparing Islamic Environmental Law to Brazilian Environmental Law. In Islamic Law, animals are not classified as “res” as in Roman-German law, because they are not merely things. The concept of animals being similar to humans, but with limited rationality, dates back to AD 612, at the beginning of the establishment of Islam, with the divine revelation of the Holy Qur'an. “There is not a moving (living) creature on earth, nor a bird that flies with its two wings, but are communities like you” (Qur'an, 6:38).

However, it would be difficult to conceive that there are no non-religious movements in favor of the environment even within Muslim countries, denying that the Muslim legal system is not influenced by society. Thus, when in this research Muslim religion is placed as a decisive component within the Muslim legal system, the social component is not excluded. A recent example of this can be seen in Vincenti (2016):

However, in contemporary Arabic and Muslim countries, such as Morocco and Tunisia, there are also non-religious social movements for sustainability. The representatives of these movements claim that socio-ecological transitions can be effectively achieved through individual and collective mobilization and action for sustainability, especially at the local level.

2.3 Religion interface and the Islamic Environmental Law identity

The religion interface has great influence on the formation of the Islamic Environmental Law identity. It is a complex interface, due to its large number of variables and the interconnections it makes with other interfaces and in Muslim society. Understanding the religion interface in the Islamic Environmental Law identity also means better contextualizing the other interfaces, reason why, among others, there was a scientific deepening in this topic.

2.3.1 Analysis on structure of fatwas

By analyzing the selected fatwas as proposed in the methodology of this research, it was observed that a fatwa cannot be classified as environmental.

This is due to the fact that, in the Muslim perspective, environmental themes can be classified into several categories of fatwas. It was decided, then, to adopt in this research the term “fatwa with environmental theme” instead of “environmental fatwa.” This reflects more accurately the Muslim environmental vision within its legal system.

Fatwas are divided into 11 main categories, namely: Basic Tenets of Faith; Hadeeth (prophetic narrations) and its Sciences; The Qur’an and its Sciences; Fiqh of the family; Principles of Fiqh; Etiquette, Morals and Heart-Softeners; Knowledge and Propagation; Psychological and Social Problems; Islamic history and biography; Pedagogy education and upbringing, and Islamic politics (ISLAM Q&A, 2019). Care must be taken when accessing the translated sites, as the best translation for the context of the systematization of the fatwas is “Principles of Fiqh” and not “Fiqh (jurisprudence) and its Principles.” Regarding these categories, the following contained environmental themes during the period of this research: the main categories of the fatwas are subdivided into several subcategories, and those that contained environmental themes during the period of this research are: Principles of Fiqh, Basic Tenets of Faith; Islamic history and biography, and Etiquette, Morals and Heart-Softeners.

The main categories are subdivided into subcategories, which were named categories at level 1 and categories at level 2. There are other levels, but they were not necessary to classify fatwas with environmental themes with regard to the proposal of this research. Table 1 shows fatwas with environmental themes divided into categories.

Table 1 Distribution of fatwas with environmental themes found in the categories

Main Categories	Categories at level 1	Categories at level 2	Number of fatwas with environmental themes
Basic Tenets of Faith	Tawheed (Divine Unity)	(Unity of) Divinity	01
Hadeeth and its Sciences	NFE*	NFE	NFE
The Qur’an and its Sciences	NFE	NFE	NFE
Fiqh of the family	NFE	NFE	NFE
Principles of Fiqh	Jurisprudence and Islamic Rulings	Customs and traditions	09
		Acts of Worship	09
		Transactions	02
		Punishment and Judicial Sentences	01

Continue

Continuation

Etiquette, Morals and Heart-Softeners	Manners	No indication of this level	01
Knowledge and Propagation	NFE	NFE	NFE
Psychological and Social Problems	NFE	NFE	NFE
Islamic history and biography	The beginning of creation and wonders of creation	No indication of this level	01
Pedagogy education and upbringing	NFE	NFE	NFE
Islamic politics	NFE	NFE	NFE
			24

* NFE = “no fatwa with environmental theme”

Source: Research results (2019)

2.3.2 Analysis on fatwas with environmental themes

During the development of this research, it was observed that it was necessary to understand two factors for the correct scientific discernment. The first factor was the understanding of what an environmental theme is in the Muslim and Brazilian conception – is there a difference or not? The second factor was the understanding of how the titles of fatwas are linked to their respective contents – to what extent can a plant be considered an environmental theme by reading its title?

The Muslim understanding of what is a natural environment theme differs from the Western understanding in general, and this is fundamental to comparing Brazilian Environmental Law to Islamic Law. In Brazil, a theme is considered natural environmental – natural environment – when its places is the location where the environment develops. In the Muslim conception, a theme is considered natural environmental simply because it has a connection with the natural environment. Thus, in Brazil meat consumption is not exactly a natural environmental theme, but it is in the Muslim conception since meat is produced in the natural environment, in a deforested area, for example. In the same sense, using natural dyes, halal (licit) or haram (illicit) meat, and animal castration, among others, are natural environmental themes for Muslims.

Therefore, the assumption is that the concept of a natural environmental theme in the West, in Brazil, is based on the effects of an activity: if it affects, even potentially, the environment is an environmental theme, if not, it is not a natural environmental theme. The act of eating meat, in

itself, would not be an environmental theme. For Muslims, on the other hand, what defines whether an issue is environmental is the connection of an activity with the natural environment; thus, the meat eaten was produced in a pasture, or in some way relates to the environment, and then meat intake is an environmental theme. One of the most accepted references to the understanding of what a natural environment theme is was Kader et al. (1983) in the book “Islamic Principles for the Conservation of the Natural Environment,” or *تأييد البيئة على حفظها وحملها في الإسلام وإيادها بما لها* (Arabic language).

Haddad (2000), interpreting Kader et al. (1983), recognizes that Islam is a comprehensive state of life that interrelates man with the universe. This global view of the universe, as seen in this research, is similar to considering the Islamic environmental view as global, whose borders extend beyond countries.

Yaya (2002), analyzing the work of Kader (1983), elaborated an item that was named “Human beings’ duties regarding their environment.” Yaya (2002) highlights the balance in the creation of the universe and that man is protagonist in maintaining the world. Kader (1983) is, therefore, corroborated by Yaya (2002), even when he expresses the relationship of sustainable use.

Ismail et al. (2019) presents “Islamic Principles for the Conservation of the Natural Environment” as a joint effort by the Saudi Arabian Meteorology and Environmental Protection Administration (MEPA) and the International Union for the Conservation of Nature (IUCN) to better engage Muslim institutions in the global environmental debate.

Therefore, based on Kader et al. (1983), Haddad (2000), Yaya (2002) and Ismail et al. (2019), it is assumed that “natural environmental theme” from the Islamic perspective is a broad view, justifying the organization of fatwas into different categories, sometimes causing strangeness in the purely Western view.

The formulation of the titles of fatwas follows patterns established in the Islamic religious molds, and the Holy Qur’an can guide in this direction. The titles inserted in the Holy Qur’an do not always show the full contents, even if in Arabic language: “The Cow” (Sūratu Al-Baqarah) does not necessarily address the animal; “The Women” (Sūratu An-Nissā) deals with women, but its content goes far beyond the title. All fatwas included in the experimental period were analyzed by titles and content for the development of this research. Thus, it is inferred that when considering whether a fatwa presents a natural environmental theme or not, it is also

necessary to take into account its content, and not only the title.

The analysis of fatwas of international application produced in the period from January 13, 2015 to October 17, 2018 showed that several environmental themes were treated within the Islamic Environmental Law identity. For the research on fatwas, the website Islam Q&A, which is supervised by Sheik Muhammad Saalih al-Munajjid, and the Permanent Committee for Islaamic Research and Fataawa, were consulted, in addition to the literature presented in the item “1.2 Description of materials and methods” of this article. Fatwas come from the Islamic Fiqh Council.

The total number of fatwas published in the aforementioned period was 753 divided into 11 categories; this means that the average number of fatwas, if divided into these categories, is around 68.4 fatwas per category. The total number of fatwas with environmental themes of international application found in this study was 24, that is, 3.2% total of fatwas and 35.1% in relation to the average per category. Considering the number of themes addressed by fatwas, which regulate the Muslims’ lives in all aspects, it is possible to say that there is an environmental concern in Islam. This can be assumed, since 35.1% of fatwas have environmental themes, if averages of fatwas are considered in the 11 categories.

The subjects dealt with in fatwas with environmental themes from January 13, 2015 to October 17, 2018 are listed below. It is important to remember what was clarified at the beginning of this article: by limiting the period of collecting fatwas with environmental themes to approximately the last four years, it was also sought to know whether the environmental theme is currently treated by Muslims.

Table 2 List of fatwas with environmental themes found in the research in chronological order and subjects treated

Fatwas	Fatwas subjects	Classification per groups
193459/2015	Is it permissible to use the public water supply for washing cars?	Nature preservation
224923/2015	Water becomes <i>najis</i> (impure) if some impurity falls into it even if its characteristics do not change.	Halal* – intake
176956/2015	Is it prescribed to offer more than two animals as a sacrifice?	Animal rights
160316/2015	Ruling on offering as a sacrifice a sheep whose tail or buttock has been cut off; what is the ruling if no intact animal can be found?	Animal rights

Continue

Continuation

192,766/2015	Ruling on keeping an animal that is a cross between a wolf and a dog.	Nature preservation
197680/2015	Ruling on wiping over <i>khuffayn</i> (leather slippers) made from monkey skin.	Halal – customs
176545/2015	Does the one who smokes marijuana come under the same ruling as the one who drinks alcohol?	Public health
212022/2015	Is it prescribed to bury animals when they die?	Nature preservation
192928/2015	Ruling on fishing with spears and hand grenades.	Nature preservation
154257/2015	Use of the black seed.	Halal* – intake
102749/2015	Ruling on fizzy drinks.	Halal* – intake
192661/2016	Choice of a castrated animal for the udhiyah***.	Animal rights
231253/2016	Ruling on using blood meal fertilizer or derivatives thereof.	Nature preservation
248124/2016	Ruling on eating foods that contain L-cysteine (E920).	Halal* – intake
126913/2016	Does refuting the Darwinian theory of evolution imply refuting animal and plant evolution?	Nature preservation
183149/2016	Ruling on drinking grape juice before it ferments.	Halal* – intake
239264/2016	Is it permissible to buy toys for cats, and meat that is not halal?	Halal – customs
271192/2017	Ruling on working in a pharmacy and making or selling medicines containing alcohol or haram gelatin.	Halal – customs
119296/2017	Artificial rainfall.	Nature preservation
244854/2017	Ruling on using a water purification system that wastes a lot of water.	Nature preservation
258312/2017	Ruling on bones from non-halal meat and vessels made from them.	Halal – customs
177030/2017	What is the ruling on eating vanilla when it is immersed in alcohol during preparation?	Halal* – intake
252773/2018	Ruling on eating synthetic meat produced by using stem cells.	Halal* – intake
271543/2018	Ruling on treating sickness with cannabidiol (CBD) oil.	Public health

* Halal = allowed

** Haram = forbidden

*** Udhiyah = animal (camel, cow, sheep or goat) that is slaughtered during the days of Eid al-Adha because of Eid and as an act of worship

Source: Research results (2019)

The analysis of Table 2 allows classifying fatwas with environmental themes collected in the period proposed in themes. The definition of these themes was the result of analyzes and inferences combining Muslim and Brazilian perspectives. It is observed that there is concern with the environment that surrounds the Muslims' lives; nature preservation and halal stand out. Animal rights, in a more general view, could be framed as a component of halal, which would give even more strength to this theme. Thus, halal and nature preservation predominate as subjects with environmental themes treated in the fatwas in the last four years, approximately. It is important to observe the intertwining of environmental themes, corroborating the inference made by this research that the concept of environment in the Muslim perspective differs from the Brazilian and Western concept in general. In this respect, the environment concept in the Muslim perspective is more comprehensive and integrative than the Brazilian one.

2.3.3 Analysis on fatwas related to agribusiness

Fatwas were collected from 12/20/1998 to 4/10/2019 in order to obtain empirical data on the Muslim perspective of agribusiness and its link with Islamic and Brazilian Environmental Law. This search for conceptual fatwas spanned a period of approximately 20 years, unlike the period of collecting fatwas with environmental themes, which was approximately four years. The search related to agribusiness was for concepts, so it should be as comprehensive as possible (in this case, 20 years), since the concepts could have had origins long time ago; on the other hand, knowing their current situation (in this case, four years) was the key for the search related to environmental themes. The search was not for a period previous to 20 years ago since some repeating themes have been found, and they even gained a new interpretation in response to the development of new pieces of research. As noted earlier in this research, fatwas evolve over time according to the development of science. An example of this can be seen in Fatwa 119830/2009 (Islam, 2009), which recommends that research on transgenic foods should be followed to make the right decision.

Table 3 Fatwas that characterize agribusiness in the Muslim perspective

Fatwas	Subject	Forbidden, allowed or allowed in what conditions
3005 20-12-1998	Can harmful insects be killed by burning them?	If these insects are harmful, they may be killed with insecticides, but not with fire.
2896 22-02-2000	What is the ruling on killing mice and rats? Comment on the character Mickey Mouse.	It allows killing them even in Mecca.
65567 20-12-2004	Ruling on neglecting animal treatment and its consequences.	There is no sin if you have made a mistake, except in relation to what your hearts deliberately intended.
82444 10-02-2006	Is anyone living in a non-Islamic country allowed consuming non-halal products?	The fact that there is no halal meat is not an excuse, because you can eat fish and seafood, or you can eat things other than meat, like canned goods and vegetables, or you can look for an Islamic center that provides halal meat.
95329/2007 30-01-2007	Ruling on castrating animals	There is nothing wrong with castrating animals such as sheep and cattle if it is done for a reason and with care to avoid causing suffering to the animal.
21417 29-05-2007	Ruling on wearing body lotions containing animal fat.	Using body lotions containing animal fat is permissible if the animal is halal.
102537 20-07-2007	Ruling on working in the manufacture of pet food that contains pork.	It is not permissible to produce or sell pork, whether on its own or mixed with other things.
10339 11-02-2009	Meat in restaurants in non-Muslim countries.	The Muslim must strive to avoid what is obviously haram, and be cautious of doubtful things, and be keen to keep his religious commitment safe and to protect his body from haram foods.
119830 26-04-2009	Ruling on eating meat and plants that have been genetically modified	Until it is proven that they are harmful, the basic principle is that these plants are permissible. It is permissible to eat animals that have been fed on these plants, but it is also essential to be cautious about what these plants may cause in the future. It is essential to follow up on research and information about these plants.
149059 05-09-2012	Ruling on eating chicken that was fed hormones or ground meat.	The milk, eggs and other foods of an animal that feeds on filth or impurity are prohibited, but if the animal is detained until it becomes pure, then it is halal.

Continue

Continuation

267794 17-11-2017	Ruling on giving chickens anti-biotics that may harm those who eat them.	It is forbidden to provide food that is mixed with any impurities, antibiotics or anything else that may harm human health, especially in the period just before they are sold or slaughtered
281148 14-01-2018	Ruling on working for UberEATS (delivering food that may be halal or haram).	If someone helps a man to disobey Allah, then he is sinning. It is forbidden to produce, work in production, load, sell, buy and consume everything that is haram.
245688 14-01-2019	Ruling on feeding pork to non-Muslims.	If he wants to offer food to anyone, Muslim or non-Muslim, he can give them food that is healthy (halal).
296393 06-03-2019	Ruling on eating organic halal meat.	If there are both benefits and harms, then if it is possible to attain the benefits and ward off the harms, then we should do that. Then, if eating organic meat is better for the body, it should be eaten, but it has to be halal meat.
274771 10-04-2019	Is it permissible to eat chicken-flavored potato chips in Western countries?	If it is written on the packaging that the flavoring is artificial, then it is permissible to eat the chips in this case, because artificial flavoring is derived from something other than meat; it is taken from plants and other sources, and from artificial substances. The basic principle with regard to substances is that they are halal and permissible, unless there is anything to indicate that they are haram.

Source: Research results (2019)

Table 3 (complementation) Fatwas distributed according to their respective categories

Categories	Fatwas
1 Etiquette, Morals and Heart-Softeners 2 Manners 3 Animal rights	3005/1998; 2896/2000; 65567/2004; 95329/2007; 21417/2007
1. Customs and traditions 2 Eating habits and nutrition	82444/2006; 10339/2009; 119830/2009; 149059/2012; 267794/2017; 245688/2019; 296393/2019; 274771/2019
1 Transactions 2 Forbidden Transactions	102537/2007
1 Transactions 2 Employment for a salary 3 Ruling on jobs	281148/2018

Source: Research results (2019).

The analysis of Table 3 allows observing that agribusiness is present in some categories of classification of fatwas. This distribution is as follows: 1 Customs and traditions, 2 Eating habits and nutrition (8); 1 Etiquette, Morals and Heart-Softeners, 2 Manners, 3 Animal Rights (5); 1 Transactions, 2 Forbidden Transactions (1); 1 Transactions, 2 Employment for a salary, 3 Ruling on jobs (1).

The category “Customs and traditions” with its subcategory “Eating habits and nutrition” presented the largest number of fatwas, followed by the category “Etiquette, Morals and Heart-Softeners,” with its subcategories “Manners” and “Animal Rights.” In the case of “Customs and traditions; Eating habits and nutrition,” there is no strangeness with regard to the classification; only the classification “Etiquette, Morals and Heart-Softeners; Manners; Animal Rights” is strange to Western people. However, this strangeness has already been dealt with previously in this research.

Halal food is the predominant subject in the conceptual fatwas of agribusiness. It is important to note that Muslims are committed to halal not only in terms of their own food, but also as guidance for non-Muslims regarding their health. It is also important to note that halal as agribusiness involves, in addition to meat, eggs, milk, cheese, drinks, utensils and personal or environmental adornments. The handling of haram products itself is forbidden, and also whether these products have business purposes.

There was also a close connection between animal rights and agribusiness. This should be noted with distinction, as it can make a business unfeasible. An animal that is raised, transported or slaughtered with suffering, for example, will not be traded as halal. Evidently, the mixture of halal products with other haram products is reprehensible, and currently this has occurred in Brazil; considering the nature of the Muslims’ way of doing business, which is correct in the understanding of this research, facts like this are extremely condemnable and the suppliers of these adulterated products will be punished commercially.

Halal food is different from organic food, as noted in Fatwa 296393/2019 (ISLAM, 2019). However, there are similarities between these two “types” of food, whether in production, transportation, slaughter (in the case of animals), and packaging. The question of the artificiality of food is a subject that can differentiate halal from organic; Fatwa 274771/2019 (Islam, 2019) can indicate this:

If it is written on the packaging that the flavoring is artificial, then it is permissible to eat the chips in this case, because artificial flavoring is derived from something other

than meat; it is taken from plants and other sources, and from artificial substances. The basic principle with regard to substances is that they are halal and permissible, unless there is anything to indicate that they are haram.

There is a caution of halal food regarding the intake of artificial substances, but, as stated in the fatwa mentioned above, the intake of artificial flavorings is somewhat allowed. It is clear that haram is everything that is harmful to the human body, which would limit the consumption of artificial substances. On the other hand, organic food is more restrictive in terms of artificial substances in food, in particular flavoring. Normative Instruction No. 18 (Brazil, 2009) in Annex III establishes that only natural flavoring additives must be used in organic food. It remains evident that this position differs from that of Fatwa 274771/2019 (ISLAM, 2019).

Another example that differentiates halal from organic food refers to genetically modified organisms. IFOAM (2017) reaffirms that transgenic organisms have no place in organic food production systems. Fatwa 119830/2009 (Islam, 2009) states that “until it is proven” that they (genetically modified) are harmful, the basic principle is that these plants are allowed and it is allowed to eat animals that were fed these plants, but it is also essential to be cautious about what these plants may cause in the future. In this case, the difference between organic and halal is evident, because in the case of organic it is simply forbidden and in the case of halal it is allowed until it is proven that they are harmful.

3 BASES OF THE “ENVIRONMENTAL AGRIBUSINESS” THEME IN THE ISLAMIC VIEW

Religion, body health, fatwas, animal rights and nature are elements (roots) that intertwine and complement each other to provide the true concept of the environment in the Islamic perspective and, consequently, of the harmonious relationship between nature and agribusiness of these adepts. These roots are derived from the inferences of the Islamic Environmental Law interfaces whose understanding was enhanced by understanding the Brazilian Environmental Law interfaces, as previously studied. In order to arrive at this point of understanding of these roots, it was, therefore, fundamental to carry out in-depth studies of the interfaces Islamic and Brazilian Environmental Law identities, as this comparison allowed a more settled view in practice, as they were done previously in this research.

From what was previously exposed in the present research it was

possible to assume that some themes can constitute Muslim environmental principles. These principles are based on concepts, rights, fatwas, customs and textual Islamic interpretations that have been the subject of in-depth studies. There are five roots of the “environmental agribusiness” theme in the Islamic perspective, from which these Muslim environmental principles derive. Previously, these roots have been studied deeply in this research.

- **Religion:** Religion for Muslims is the fundamental basis of life and business, having a practical character in their decisions.
- **Body health:** Muslims have a duty to take care of their bodies and help other people, Muslims or not, to do the same.
- **Norms:** fatwas and other laws must adjust and detail the actions in the Muslims’ lives, answering questions and orienting in harmony with the Holy Qur’an and Sunna.
- **Animal rights:** animals are given special and protective treatment by Muslims.
- **Nature:** nature is seen as involving almost the Muslims’ entire lives, thus changing the very environment concept.

CONCLUSIONS

Based on this research, it was possible to reach a conclusion regarding the Islamic environmental principles to carry out agribusiness with sustainability:

1. What is expressly forbidden by Allah in the Holy Qur’an and Sunna will not be done in agribusiness.
2. What is harmful to the body will not be consumed or marketed.
3. What Islamic fatwas condemned is rejected in agribusiness.
4. Animals are considered rational beings, but with limited rationality; the product coming from the suffering of animals does not serve as food or another application.
5. Preference should be given to that which causes less damage to the natural environment.

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