

# The Phenomenon of Dukhan From the Perspective of Islam (Qur'an, Hadith) and Science

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**Abstract:** The phenomenon of dukhan is an important phenomenon to know, especially by Muslims who believe in the existence of doomsday, where one of the signs is the appearance of dukhon. This study aims to determine the relationship between Islam and science in discussing the phenomenon of dukhan itself. This research is a study that uses qualitative data analysis methods with literature study methods based on literature review. The results showed that the phenomenon of dukhan in the perspective of the Qur'an is related to the process of forming the universe that used to happen when there was a big bang that caused smoke or fog, as a sign of the coming of doomsday. In addition, dukhan is also directed as a punishment to people who are careless in carrying out their obligations as servants in the world. In the perspective of Hadith, dukhan is a sign of the coming of the Day of Judgment, which gives a sense of distress and pain to humans at the end of time. From a scientific perspective, the phenomenon of dukhan is a smoke or fog that occurred in the past and will occur in the future. In the past, it was associated with the creation of the universe where there was a large explosion that produced gas throughout the solar system. In the view of science in the future, the phenomenon of dukhan will occur when the earth is filled with pollution, environmental pollution, and human actions that damage nature so that the earth can no longer take the burden of life. Thus, there is a similarity between the Islamic point of view and the scientific review. Thus, after knowing how the phenomenon of dukhon, it is hoped that we can increase our faith in Allah SWT, and always try to preserve nature.

**Keywords:** Dukhon, Hadith, Library Research, Qur'an, Science.

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## Introduction

Islam comes as a religion that blesses all creatures in the universe, or as rahmatan lil 'alamin. Islam teaches care, attention, and teaching to its people so that they can process and develop to explore the potential of nature and the environment to become the center of civilization. In this discussion, there is no contradiction between science and Islam, where both are mutually compatible to create scientific knowledge and human civilization that is brighter than before.

As Kalamulloh that was revealed to the Prophet Muhammad SAW, the Qur'an became the main lantern of Islamic education. The Qur'an is a

complete guide for humans that teaches all aspects of life that are universal. The universality of the Qur'an contains various sciences revealed by Allah as a guide for humans towards a better direction.

Hadith is everything that is reported from the Prophet Muhammad SAW. either in the form of words, actions, taqrir, physical characteristics or morals and behavior, either before being appointed as an apostle or afterwards which is attributed to the companions and tabi'in (Nazlianto 2016).

Dukhan in terms of language according to the Miftah dictionary means a smoky or foggy condition. This opinion is supported by Ibn Manzur in Lisan al-Arab who says that dukhan in terms of language means smoke or dust scattered

in the air and also carries the meaning of very thick smoke. He makes an analogy by saying that the smoke is like food or meat that is cooked and releases smoke so that the food changes its smell and taste (Mohd Noor, Abdul Wahab, and Mokhtar 2017).

Based on several studies that have been conducted previously, there are studies that analyze the phenomenon of dukhan in the perspective of the Qur'an and science (Mohd Noor, Ahmad Yunus, Nor Azilah Abdul Wahab, and Asmilyia Mohd Mokhtar. 2017. "The Jerebu Phenomenon Between Quranic and Modern Science Perspectives." *Sains Malaysiana* 46(10): 1743-48.). However, there is no research that analyzes the phenomenon of dukhan in the perspective of Islam (Al-Qur'an and Hadith) and science. So, the purpose of this study is to find out the phenomenon of dukhan in various aspects that are more in-depth, so that readers gain new scientific knowledge that can bring them closer to the creator of the phenomena in the universe.

The phenomenon of religion is important to understand because it is part of human life (Samuri, 2018). The idea of unifying religion and science to the idea of developing religion-based science, in fact, has narrowed down and has reached the formation of a scientific building in the form of a scientific paradigm (Muslih, 2016). If the Qur'an is the source of all knowledge, of course, any knowledge scattered on this earth can be found in the Qur'an, as well as the phenomenon of dukhan which is also explained in the Qur'an and hadith, which then science is also able to explain it scientifically. By knowing the phenomenon of dukhan in various views, it is hoped that it can be a lesson (Nabilah et al. 2020).

### Materials and Methods

Data collection techniques according to Sugiyono, 2016 are the most strategic step in writing, because the main goal of the writer is to present writing that is in accordance with the correct data or information. Without knowing the data collection technique, the author will not get data that meets the specified data standards (Nabilah et al. 2020).

The data collection technique used in this paper is to use a qualitative data analysis method, which is literature (library research). The data collection techniques used in this paper are as follows: First, using the literacy study writing method. Information is obtained from various sources and then compiled based on the study results of the information obtained. Second, the information collected is selected and sorted according to the topic of study. according to Jannah, 2018 Data analysis begins with systematically compiling data obtained from the results of data and information collection by organizing into categories, breaking down into units, synthesizing, compiling into patterns, choosing which ones are important and which ones will be studied, and making conclusions so that it is easy to understand yourself and others (Nabilah et al. 2020).

### Results and Discussion

#### Qur'anic Perspective

Dukhan in Arabic means smoke, steam, and gas. Dukhan comes from the word (د-خ-ن), meaning the substance that occurs due to the burning, which is commonly called smoke. Dukhan also means 'smoking tobacco' because it is burned and the smoke is smoked. The word dukhan also means 'steam' because it has the same or almost the same form as smoke (Solikhah et al. 2018).

So, dukhan is also called something that floats to fill the air that can harm humans (interfere with breathing). Dukhan can be interpreted as dust that flies from the ground due to a long drought. Dakhn is described as something dark black in color (Solikhah et al. 2018).

In the Qur'anic perspective, dukhan is a phenomenon that comes as a punishment or punishment to ignorant servants in the world. In addition, the phenomenon of dukhan is one of the processes that is believed to have existed during the formation of the universe millions of years ago, and the phenomenon of dukhan is also one of the signs of the apocalypse that will occur in the future.

According to Al-Suyuti (2000), dukhan can be seen with the naked eye in white which can make

the view of a place blurred. Dukhan when viewed from the point of view of learning can be taken from the factor of its occurrence which means Allah's punishment or punishment to humans who are often ignorant of the life of the world so that they forget their responsibilities as a servant on this earth. As Fuad Abdul Baqi (2002) states that ad-Dukhan is mentioned in the Qur'an twice, namely in Surah ad-Dukhan verse 10 and Surah Fussilat verse 11.

Allah says:

فَارْتَقِبْ يَوْمَ تَأْتِي السَّمَاءُ بِدُخَانٍ مُّبِينٍ

So wait for the day when the sky brings a clear mist (Q.S Ad-Dukhon:10).

ثُمَّ اسْتَوَىٰ إِلَى السَّمَاءِ وَهِيَ دُخَانٌ فَقَالَ لَهَا وَلِلْأَرْضِ ائْتِيَا طَوْعًا أَوْ كَرْهًا قَالَتَا أَتَيْنَا طَائِعِينَ

Then He went to the heavens and they were still as smoke, so He said to them and to the earth, "Come both of you to My command obediently or unwillingly." They replied, we come obediently" (Q.S Fussilat: 11).

- The phenomenon of dukhan in view as a teaching or punishment contained in Q.S Ad-Dukhan verse 10.

Smoke /jerebu in the Qur'an is known as 'al-Dukhan', the word 'al-dukhan' is found in Surah Fusilat verse 11 and Surah al-Dukhan verse 10. The jerebu haze disaster that occurred was not the first time in history. The facts explain that the haze disaster has occurred in some parts of Indonesia (such as in Riau and others). In the Qur'an there is a special surah named after the letter of jerebu/smoke, namely al-Dukhan. Wahbah al-Zuhayli argues that the name al-Dukhan in the letter contains a hint of Allah's promise about the punishment that will be inflicted on unbelievers, sinners and destroyers of life (Nur, Lubis, and Mohamad 2016).

Although Ibn 'Ashur states that the meaning of jerebu in the verse is not in essence and is more specific to the meaning of drought, he does not reject the possibility of other appropriate meanings, including the meaning of jerebu in essence (Ibn Ashur 1984). In fact, he argues that the 'jerebu' bala mentioned in the verse above did not only happen to previous nations, but may even happen again in the present and the future (Ibn Ashur 1984). It turns out that his opinion and views are indeed

proven to this day (Nur, Lubis, and Mohamad 2016).

So it is clearly mentioned in the verse, that there is a very close relationship between dukhan with sin and punishment. Dukhan is not just limited to ordinary calamities or disasters that are sufficiently explained in words. Dukhan is defined as 'punishment', but it is not a punishment that Allah SWT inflicted on the previous people, but is the fault of humans due to their own hands. This punishment may happen to humanity, if the stage of kufr and disobedience committed by humans has reached an overwhelming stage. Among the signs that have begun to appear before the eyes such as actions / behavior that doubt the power of Allah SWT, immorality, making fun of religious affairs, mocking pious people who practice Islam correctly and others (Nur, Lubis, and Mohamad 2016).

- The phenomenon of dukhan is associated with the creation of the universe contained in Q.S Fussilat verse 11.

The word dukhan in Tafsir al-Jalalayn is interpreted as bukhār murtafi' which may be understood as high smoke. (Al-Suyuti et. al, 2000: 9/227). Similarly, al-Baghawi interprets it as bukhār al-ma' which implies water vapor. (Al-Baghawi, 1997:7/165). According to Danial, 2010 precisely, this verse becomes the principle that the creation of the heavens and the earth originated from smoke (Roshimah and Shakirah 2018).

Moreover, the term dukhan contained in this verse is also stated to have several elements and one of the elements is vapor which comes from water. Therefore, it is said that everything is formed from water (Abdul Rahman, 1998: 114). This agrees with the mafhum of the Qur'anic verse (surah al-Anbiya":30) that everything is made from water including natural events themselves.

- The phenomenon of dukhan in view as signs of the doomsday contained in Q.S Fussilat verse 11 According to Ibn Katsir (2003), the Qur'anic verse shows that there is smoke or dukhan covering the sky related to the signs of doomsday, one of which is the appearance of dukhan. Muhammad Hisham Kabbani (2003)

supports the opinion that dukhan is one of the signs of the apocalypse (Mohd Noor, Abdul Wahab, and Mokhtar 2017).

- The phenomenon of dukhan in view as signs of doomsday contained in Q.S Ad-Dukhan verse 10.

In tafsir ilmi it has been mentioned that dukhan is part of the signs of the great apocalypse caused by the impact of celestial bodies to the earth. This is based on the words of Ibn Abbas in an atsar narrated by Abdullah bin Mulaikah, he said:

*I went early in the morning to see Ibn 'Abbas RA one day, then he said, "I did not sleep this night until morning." I asked, "Why?" He replied, "People say, 'A tailed star appeared tonight.' I feared that the smoke had already appeared, so I did not sleep until I entered the morning.*

This is a saheeh report from the hibrul ummah (the ink of the ummah, because of his vast knowledge) and the commentator of the Qur'an, Ibn 'Abbas. The atsar contains some great clues, with Ibn 'Abbas linking the rising of the tailed star with the sign of smoke, which is considered one of the signs of the Day of Judgment. It could be that the close connection between these two things shows the character of the relationship between the two, namely that the rising of the tailed star is the cause of the appearance of smoke. Ibn Abbas's statement is also in accordance with the description of astronomers and their conclusions about the occurrence of a very tense situation due to the appearance of smoke covering the earth, a situation after the fall of a meteor to the earth (Solikhah et al. 2018).

The fall of a meteor into the earth's atmosphere is actually enough to create thick clouds accompanied by smoke that can cover the view towards the sun, either partially or totally. This event was feared by Ibn Abbas about the emergence of tailed stars into the earth's atmosphere that could cause dukhan (Solikhah et al. 2018).

### Hadith Perspective

Dukhan in the Hadith perspective is a phenomenon that appears as a sign of the coming

doomsday in the form of thick black smoke. The smoke is part of the signs of the great doomsday. It will cover the earth for forty days, and fill all sides of heaven and earth. As for the faithful, they will catch a cold, while the kafirs and disobedient people, the smoke will enter the nose then come out through the ears and rectum and suffocate their breath. This opinion relies on the hadith narrated by Abi Suraih Hudzaifah bin Yaman RA, as the Messenger of Allah SAW said, (Solikhah et al. 2018).

*"Among the signs of the Hour is the descent of a black mist that covers between the east and west of the earth and will continue to cover for 40 days. The believer only suffers from salesma, while the disbeliever is like a drunk, the mist comes out of his mouth, both nostrils, both eyes, both ears, and from his rectum."* (HR Thabrani)

In another hadith also mentioned that Tsa'labah narrated from Hudhayfah, he said,

*"The Messenger of Allah (SAW) said, 'The first signs to come out are the Dajjal, the descent of Isa the son of Maryam, and the fire that comes out of the belly of Aden, which is very clear, (and) which will lead them to the place of their gathering. It stays with them wherever they stay, takes a nap with them if they take a nap, is with them in the morning if they enter the morning, and is with them in the evening if they enter the evening,' I said, 'O Prophet of Allah, then what is the smoke?' He recited this verse: فَارْتَقِبْ يَوْمَ تَأْتِي السَّمَاءُ بِدُخَانٍ مُّبِينٍ 'Then wait for the day when the sky brings a manifest smoke.' (Qs. Ad Dukhan]:44]:10) That smoke will fill what is between the East and the West, remaining (on the earth) for forty days and forty nights. As for the believer, he will be affected because of the smoke by (something) similar to a cold. As for the unbeliever, he will be like one who is drunk. The smoke will come out of his mouth, throat, eyes, ears, and rectum."* (Solikhah et al. 2018).

### Science Perspective

Scientifically, dukhan can be defined as a substance where the material is mainly gaseous and partly solid particles, partly filling a dark color and partly heat. In general, smog occurs in large cities that are congested by vehicles or factories and has a dense brown color. In certain weather places in winter and dry seasons, smog undergoes the reaction

process of nitrogen oxides and hydro carbonates through sunlight. Toxic substances such as 4 acetyl baroxin and ozone gas become intermingled. These substances will create haze which will then decompose with rainwater that falls, bringing acid rain (Solikhah et al. 2018).

The Big Bang theorem explains that the origin of the universe is a smoky material called a nebula (fog). The thin mist includes hot gas bound with atoms. Initially, the nebula is made up of very dense, high-density, high-temperature points and is called a singularity point. It is an undefined point. Since then, a large space explosion known as the Big Bang occurred and within minutes hydrogen (H), helium (He), protons, electrons and neutrons were formed (Solikhah et al. 2018).

- The causes of the emergence of dukhan (haze) in general

Air pollution is the process of entering or introducing living things, substances, energy or other components into the air. Or the change in air order caused by human activities or other processes, which forms the air quality decreases to a certain level which results in the air becoming less functional as it should. As for the kinds of human or natural activities that can cause increased haze that makes the air polluted, namely:

- a) Factory activities and motorized vehicles

Industrial and transportation activities based on oil and coal (fossil fuels) are thought to cause a lot of gases (CO<sub>2</sub>-Carbondioxide, CH<sub>4</sub>-Methane and N<sub>2</sub>O (Nitrous Oxide)) in the atmosphere, causing the greenhouse effect (ERK) which makes temperatures in some parts of the earth hot (Solikhah et al. 2018).

According to literature studies, the transportation sector, as the backbone of human activity, contributes significantly to air pollution worldwide: 44% TSP (total suspended solids), 89% hydrocarbons, 100% PB. , 73% NO<sub>x</sub>. Exceeding acceptable thresholds can have a negative impact on the environment for humans, animals and plants (Budiyono 2010).

- b) Forest fires

Forest and land fires cause the release of carbon compounds into the atmosphere.

The increase in carbon compounds (CO<sub>2</sub>) as a greenhouse gas makes the greenhouse effect increase. The effects that arise are very dangerous in the lives of creatures in the world, which can cause global warming in the biosphere layer (Solikhah et al. 2018).

Forest fires and land fires definitely have an impact on the environment. Environmental destruction will kill all species found in the forest environment, including animals, biota, medicinal plants, resin, wood and fruits needed to balance our lives. That is why forests are one of the most important parts of the environment in human life because forests are the lungs of the world (Pasai 2020).

- c) Volcanic explosion

Volcanic eruptions are one of the natural events that have a significant effect on the atmosphere. The amount of volcanic ash scattered in the atmosphere absorbs water vapor or is called hygroscopic. The hygroscopicity of volcanic ash or aerosols causes a decrease in water vapor content in each layer of the atmosphere, causing a decrease in air humidity (Simanungkalit and Subektyo 2016).

- d) Nuclear explosion

Changes in nuclear atoms that separate or combine to produce nuclear energy are called the nuclear breakdown process. While other processes that work together are called nuclear melting. These changes produce energy that can form light, heat and radioactivity which functions as a beam of atomic particles or gamma radiation or even both. This nuclear reaction is associated with kinetic energy that can cause an explosion (Solikhah et al. 2018)

- e) Meteor or asteroid impact on earth

When a meteor collides with the earth, it can turn soil, water, and grass, as well as forests into dust and gases that fill the earth's atmosphere. Astronomers explain that after a meteor's fall to the earth, a thick ring of smoke will rise up to cover the entire plane of the earth, which makes the earth blocked from sunlight. At the very least, this results in the covering of the humus layer, which

inhibits plant growth, either in whole or in part. So that plants cannot grow on the earth even though it often rains (Solikhah et al. 2018).

Shortly after the meteor impact to the earth, the hot dust and rock fragments created by the powerful impact scattered into space, forming a hole in the atmosphere followed by sparks. When the hot rock dust reaches the top of the atmosphere, the temperature drops and millions of very fine dust particles are formed when the hot rock dust reaches the very top of the atmosphere. The hot dust will generate hot air around it as it descends to earth in no less than an hour. This causes the sky to appear bright red (like the color of a red rose). And that's when the hot dust plume will burn trees, green leaves and all existing buildings (Solikhah et al. 2018)

### Conclusions

So it can be concluded that, dukhan or jerebu in the perspective of the Qur'an is a punishment given by Allah to humans who are ignorant of their obligations as servants on this earth, besides that the phenomenon of dukhan is associated with the process of creating the universe that used to take place when there was a big bang which caused smoke or fog, and also dukhan is one of the signs of the doomsday where the smoke will torment humans by damaging organs and making large-scale deaths which will eventually occur. apocalypse will happen. Then from the perspective of the hadith dukhan or jerebu is one of the signs of the great doomsday that makes believers only suffer from salesma, while kafirs are like drunk people, where the fog comes out of their mouths, both nostrils, both eyes, both ears, and from their rectums. Meanwhile, from a scientific perspective, dukhan or jerebu is defined as a substance whose material is mostly gaseous and partly in the form of solid particles, partly dark in color and partly hot caused by various human or natural activities that can cause the appearance of smog so that it pollutes the air, including: factory and motor

vehicle activities, forest fires, volcanic explosions, nuclear explosions and meteor or asteroid strikes to the earth.

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