119296 - Artificial rainfall – facts and scholarly opinions

the question

What is the Islamic ruling on so-called rainmaking or cloud seeding?

Is it valid to compare it to test-tube babies or artificial insemination?

Detailed answer

Firstly:

Definition of rainmaking and how it is done:

In al-Mawsooʻah al-ʻArabiyyah al-ʻAalamiyyah it says:

Rainmaking is a process by which rain is made to fall from the clouds by a purely scientific method conducted on cloud formations in the sky. It is also called cloud seeding. People use this method to increase the amount of rainfall in a specific area, or to produce water for irrigation or for the generation of energy in hydro-electrical stations. It is also used to prevent heavy rainfall in agricultural areas, to prevent destruction of crops. In some instances, experts are able to reduce the severity of storms by causing the cloud to be formed before reaching those areas. A number of US scientists, working independently, developed methods of rainmaking during the 1940s.

There are three ways of rainmaking:

The ways of making rain: rain occurs when water vapour in the clouds forms ice crystals or droplets of water that are heavy enough to fall to earth. In some instances, it is possible to increase the probability of rainfall by adding some substances known as seeding agents to the clouds. This method of seeding works best in a cloud that has a better chance of producing rain. The material used as a seeding agent depends on the temperature of the cloud.

At temperatures above zero degrees Celsius, the main seeding agent used is a liquid composed of ammonium nitrate or urea. The particles of this agent cause water vapour to form around them. This seeding agent is sprayed on the cloud from below by airplanes.

When the ice crystals form, they fall to earth in the form of small icy pellets. If they pass through an area that is above zero degrees Celsius, they melt and form rain.

The temperature of dry ice, which is solid carbon dioxide, is approximately minus eighty degrees Celsius. When the pellets of dry ice are dropped onto the clouds from a plane, they reduce the temperature of the water in the cloud, and when the temperature is reduced, the water forms ice crystals. Crystals of silver iodide resemble crystals of ice, which makes the water, which is extremely cold, form ice crystals around it. Devices such as flares and generators are used to produce and distribute water vapour containing crystals of silver iodide. This vapour is produced by burning silver iodide with other materials, and the vapour is distributed by means of a plane; it is also possible to use generators to distribute it from the ground.

Cloud seeding caused a great deal of controversy and discussion. Scientists have not been able to prove how effective it is in all situations. In addition to that, some people believe that increasing rainfall in certain areas may lead to a shortage of rain in other areas. End quote.

Secondly:

Comments of some environmental and meteorological experts:

1. The environmental writer As‘ad Siraaj Abu Razeezah said:

In 2003 CE, the National Academy of Science in the USA stated that up until now there is no definitive evidence or authentic scientific proof to confirm that this technology is effective.

The American Meteorological Society stated that there are indications that it is possible to increase the amount of rainfall by ten percent after cloud seeding or rainmaking.

Dr William Cotton, of the Department of Atmospheric Science at Colorado State University says: We have not seen – except in very rare cases – any definitive proof to confirm that rainmaking

produces results.

The Commonwealth Institute of Science and Industry stated in a report: It is impossible to end drought by creating rain artificially, and it confirmed that the success of some experiments was dependent on the type of cloud targeted, and that most types of clouds cannot be made to produce rain through artificial means. End quote.

2. He – As'ad Siraaj – also said:

The environmental impact of this technology needs to be researched and understood from all angles, because the material used in cloud seeding is toxic – according to the classification of international organisations. The Office of Environment, Health and Safety at the University of California, Berkeley, classifies silver iodide as a dangerous chemical, not organic, substance. It is not soluble in water and it is toxic to humans and fish.

The US Environmental Protection Agency classifies silver iodide as a dangerous and toxic substance.

Numerous medical studies on the effects of silver iodide on human health have proven that it may enter the body through the digestive and respiratory systems, or via absorption through the skin, and it may cause various sicknesses, beginning with digestive upsets or discolouration of the skin (argyria, in which the skin turns blue or bluish-grey) in cases of mild poisoning, but may lead to enlargement of the heart and extreme respiratory problems in high doses. End quote.

Saudi newspaper al-Watan (Wednesday 23 Jumaada al-Oola 1429 AH/28 May 2008 CE, issue no. 2798, 8th year).

3. Shaykh 'Abd al-Majeed az-Zandaani quoted Dr Muhammad Jamaal ad-Deen al-Fandi - professor of meteorology in the Faculty of Science at Cairo University as saying:

The natural conditions that lead to the formation of clouds and rainfall cannot be reproduced artificially by man, nor does he even have any way of controlling it. The issue of artificial rainfall is not in fact artificial rain, because rain cannot be made by man in a laboratory; rather

it is a kind of rain of which man tries to hasten the fall. As for producing rain from passing clouds, there were only a few experiments which have not yet been proven to be successful. Even if they were to become successful, it is still essential for nature to provide the same conditions as needed for natural rain in order for it to be possible to produce rain artificially; in other words, the role of meteorologists does not go beyond simply lighting a spark. End quote.

Tawheed al-Khaaliq by Shaykh ‘Abd al-Majeed az-Zandaani (p. 223)

Thirdly:

Fatwas of some of the scholars concerning this issue:

1. Shaykh ‘Atiyyah Saqar (may Allah have mercy on him) was asked:

Some scientists have been able to produce artificial rain. Is this contrary to the words of Allah, may He be exalted (interpretation of the meaning): “He sends down the rain” [Luqmaan 31:34]?

He replied:

We all know that the condensation of water vapour in the clouds, or in the atmosphere in general, may occur because of several factors, which leads to the fall of rain or the formation of dew, and this cannot be interpreted as something else playing a part in thedivine actions of which Allah, may He be exalted, says, (interpretation of the meaning): “He sends down the rain” [Luqmaan 31:34], because the formation of clouds and the atmosphere being filled with water vapour to such a large extent is something that Allah causes to happen through the means and factors that He has created, for He is the Creator of the vapour and of the heat of the sun, and it is He Who controls the temperature of the atmosphere and the wind, which He causes to drive the clouds. By His might and power, He is able to control all of that, and thus make it not produce any results, as He, may He be glorified, says elsewhere (interpretation of the meaning):

“See you not that Allah drives the clouds gently, then joins them together, then makes them into a heap of layers, and you see the rain comes forth from between them. And He sends down from the sky hail (like) mountains, (or there are in the heaven mountains of hail from where He sends down hail), and strike therewith whom He will, and averts it from whom He wills”

[an-Noor 24:43].

The processes through which some people try to make rain fall from the clouds are similar – to some extent – to other processes, such as the process of separating salt from water in order to make the water fresh and palatable, which is based on evaporation and condensation, as happens in the alembic or distilling flask that is used in the extraction of fragrances. This action of theirs is not interfering with Allah's creation; rather it is using material that Allah has created, for no one can create heat or cold water through any means or material other than what Allah has created in this universe.

Moreover, their attempts are to no avail, because the countries of many of these scientists are suffering drought and lack of water, and destruction of crops and livestock. If they had the power to control the rain, water and wind – as Allah controls them – so that they could save themselves from drought, they would have done so and would not have kept quiet. But the power of Allah supersedes their power and the will of Allah supersedes their will. Similarly, treating a sick person with medicine made from material created by Allah does not justify attributing the real source of healing to anyone other than Allah.

In addition to being incapable of saving themselves from drought, they are also unable to ward off whatever strikes them of storms, thunderbolts, floods, earthquakes and volcanic eruptions that strike the land of people who regard themselves as civilised and advanced, and take pride in their sciences and inventions. All of that increases us in faith and belief in the words of Allah, may He be exalted (interpretation of the meaning):

"O mankind! it is you who stand in need of Allah, but Allah is Rich (Free of all wants and needs), Worthy of all praise.

If He will, He could destroy you and bring about a new creation.

And that is not hard for Allah"

[Faatir 35:15-17].

End quote.

2. The scholars of the Standing Committee for Issuing Fatwas said:

So-called artificial rainfall is not proven – as far as we know – to be as they say it is. Rather there is some exaggeration concerning the matter, but this issue – praise be to Allah – should not cause any confusion, because Allah has caused them to learn that rain happens by His decree when various factors come together and interact. Then they tried to bring about these factors, and they may or may not achieve some results. If that does happen, it is on a very small scale, not like the rain that Allah, may He be exalted, sends down from the clouds. We know – as others know – that the countries which use what is known as artificial rainfall do not benefit from it. If Allah, may He be exalted, did not send down rain from the sky, they would experience drought and famine. End quote.

Shaykh ‘Abd al-‘Azeez ibn Baaz, Shaykh ‘Abd al-‘Azeez Aal ash-Shaykh, Shaykh Saalih al-Fazaan, Shaykh Bakr Abu Zayd

Fataawa al-Lajnah ad-Daa’imah, vol. 2, 1/241

Conclusion:

1. So-called artificial rainfall was first invented in 1946 CE. If they had succeeded in doing what they claim, the entire earth have turned green and no country would suffer drought. But it did not go beyond this stage of experimentation.

2. Even what they claim to have achieved, they would not have been able to achieve without the presence of clouds which are created by Allah, may He be exalted, and without the potentials that Allah, may He be exalted, has instilled in the clouds of producing rain, and – by the same token – other conditions that must be met in order for the cloud to produce rain.

3. Whatever scientific knowledge is attained in the East or the West is only attained by the help of Allah and His inspiration. No one will ever have power greater than that of Allah or knowledge without Allah granting it to him.

4. As for the water that they claim to bring down by means of rainmaking, if it is proven definitively that they did that, it could not happen except by Allah’s leave. If Allah so willed, He

could make their planes crash or cause their cannon to backfire on them, and He could cause the cloud to reach wherever He wanted, or cause the water in that cloud not to come down. If the non-Muslim West does not understand that, then it should not be absent from the minds of Muslims even for one moment.

This is like planting crops – or artificial insemination, as the questioner mentioned. Allah, may He be exalted, tells us that He is the One Who causes crops to grow and fruits to form and mature. What some farmers do of spraying chemical or natural substances that cause quicker growth does not mean that it is contrary to what is said in the Qur'an. Rather it is Allah, may He be exalted, Who has enabled them to do that and taught them how to do it. There may be some harm (in that material), such as when they use chemical substances, or the materials may be beneficial, such as when they use natural substances.

5. The water that Allah, may He be exalted, has guaranteed to send down from the clouds is ghayth (rain). This is how it is described in the verse which speaks of the five unseen matters, ("He sends down the rain [ghayth]" [Luqmaan 31:34]). This is the rain that Allah, may He be exalted, sends as help to the land and people, from which streams and oases are formed, by means of which He brings forth crops and causes the earth to withhold whatever He wills beneath the ground. As for what some claim to be able to bring forth from the clouds by means of rainmaking, it is not the water that gives life; rather it is – as some of them call it – imaginary water. In fact it is harmful water, as explained above.

6. Muslim states should not be influenced by the claims and advertising of commercial companies and forged research. Rather they should think of the real situation in the countries from which these companies come, for if what these companies claim was true, they could have transformed their own deserts into gardens.

7. The Muslims should not neglect the prayer for rain (salaat al-istisqaa'), for it is real rainmaking. It is proven in the saheeh Sunnah that the Prophet (blessings and peace of Allah be upon him) prayed and asked his Lord for rain when there was no cloud, great or small, in the sky, then Allah, may He be exalted, brought clouds laden with rain (ghayth). Thus He helped (aghaatha) the land and the people. Whatever these people claim, they cannot undertake the

process of rainmaking unless there is a cloud in the first place! So which of the two most deserves to be called rainmaking, and which of the two groups is more true in speech?

And Allah knows best.