

# Moon Sighting & Astronomical Calculation

*Insights from Qur'an & Hadith*

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Id al-Fitr, the great festival of Muslims, marks the happy culmination of the labour of fasting for the full month of Ramazan. It is a divine reward and a day of rejoicing. However, the controversial decisions about sighting the moon taken by the provincial moon committees in countries like India more often spoil the celebrations and gaiety of the occasion. Celebrating the festival on two or even three different days in different parts of our country leaves us and others confused and wondering! It even affects the unity of the Ummah.

India is a single lunar unit. That is, sighting of the moon at one place in it shall be adequate proof for celebrating the Id else where. Such a consensus has already been arrived at concertedly at a meeting of Majlis-e-Tahqeeqat-e-Shariah held in 1967 at Nadwatul Ulama, Lucknow. The ten top scholars of Islamic theology who had gathered at the session had declared India, Nepal and Pakistan as one lunar unit since these countries could be categorised under "closeby states". If this decision were followed, the whole of the continent will be celebrating the Id on a single day and that will be a unique expression of Islamic unity. Hence the scholars should sit together again to implement this decision so that no controversy arises in future.

Further, in recent times, communication has been revolutionised to the extent that news reaches from one end of the world to the other in seconds, and man travels from continent to continent in few hours. Establishing inter-country contacts is far easier and assured. Modern techniques are also being developed in sighting the moon. Hence the need for establishing the inter-state and inter-continent contacts becomes imminent.

## **Two Suggestions**

Two suggestions are being offered in connection with the elimination of differences that frequently surface and for ensuring the celebration of Id on a single day all over the country.

Firstly, a central committee for sighting moon should be formed under whose aegis the state moon committees should operate. They should intimate the sighting of the moon in their respective states to the central committee which, in turn, should ultimately decide in the matter and declare the final decision which should be binding on all. This will ensure the celebration of Id on the same day throughout the country.

Secondly, assistance of astronomers be taken in sighting moon. Shariah approves such a measure. The holy Qur'an and Hadith do testify to this effect which would be evident from the following discussion.

## **Variance in the Traditions**

The holy Traditions (Ahadith) contain three types of commandments with regard to the sighting of the moon. Prima facie, they appear to convey contrary messages. This has virtually held up any consensus among scholars and jurists alike and thus the Ummah has been deprived of any agreement in the matter right from the earlier periods of Islam. Out of these three commandments one does approve reliance upon astronomical calculations in the matter. Many scholars of yore have individually ruled in its favour. But other reasons and apprehensions played an important role in the Ummah evading a consensus.

However if holy Qur'an and the Traditions are consulted exertedly and the holy texts are elucidated anew in the light of the latest knowledge, it becomes obvious that astronomical consultation can be taken as an authentic tool in sighting the moon. Express instructions are available in the holy Book,

while the Traditions present only their elaborated versions. Hence, it is exertion in the holy texts rather than following mere conventional injunctions of the earlier jurists which is the need of the hour.

## **A Marvellous Aspect of the Traditions**

The variance observed in the commandments referring to the sighting of moon is merely superficial. There is no contradiction as such. A deeper study reveals the undercurrent of wisdom and coherence among them as also the marvellous nature of the Traditions. They have certainly been drawn with an eye on the possible future needs and events. The scholars are thus obliged to directly seek guidance from the holy Qur'an and Hadith whenever any necessity arises. The principles of Fiqh make it clear that in case of fresh issues, solution should be sought basically in the holy Book. In case of inadequacy, the Traditions should be consulted. The next source is the consensus of the Ummah and finally analogy and reasoning have to be resorted to.

## **Qur'an and Hadith form the Core**

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O ye who believe! Obey God and obey the Apostle, and those charged with authority among you. If ye differ in anything among yourselves, refer it to God and His Apostle, if you do believe in God and the Last Day: That is best and most suitable for final determination. (Qur'an, 4:59)

Obviously, the holy Qur'an and the Traditions encompass the issues that may arise in future. In contrast, the scholars and the jurists can solve only the problems at hand and cannot visualise future happenings. Hence, whenever new and contentious issues arise, the first source to be consulted is the holy Book and the Traditions.

The holy Book provides broad guidelines which have been elaborately explained in the Traditions. Hence a first reference is made herein to them. For the sake of convenience, Ahadith will be elaborately dealt with first here followed by elucidation of the Qur'anic injunctions and establishment of correlation and correspondence between both these divine sources.

## **Moon Sighting and the Traditions**

Of the commandments regarding the sighting of moon, a categorical and consensual one reads:

“Muslims should begin fasting after sighting the new moon and end them sighting the new moon.”  
(Sahih Bukhari & Sahih Muslim)

This has been the guideline for Muslims all through. No controversy has arisen in the past about starting fasting and celebrating the feast after sighting the respective new moons. This is a general guideline. However, there are two other and equally clear commandments on this score. Although they seem to be contradictory but on proper correlation and correspondence, they testify to the inherent wisdom of the Prophet's quote and simultaneously solve all intricacies arising in modern times. Hence they are being dealt in detail herein.

## Reasoning and Conjecture

The first of these commandments has been quoted in the most authentic collections of the Traditions like Sahih Bukhari, Sahih Muslim, Muatta Imam Malik etc. on the authority of Ibne Omar wherein the holy Prophet (Pbuh) addressed the Ummah collectively and instructed:

“Do not start fasting unless you sight the new moon and do not cease fasting unless you sight the new moon. And if anything (clouds etc.) overcasts, then use discretion and reasoning.”

Imam Bukhari and Imam Muslim have quoted this Tradition on the basis of a large number of authorities. It is also quoted in Nasai, Ibne Maajah, Musnad Ahmed, Darami and Sahih Ibne Khuzaima. The most significant phrase here is “use your discretion or reasoning if something overcasts you”.

In the original Arabic text the word “Uqduru” has been used. It is derived from “Qadr” and “Taqdeer” which means (1) to estimate; (2) a thing being similar to another; (3) to bestow power or authority; (4) to contemplate about the correctness or validity of something; (5) to arrive at the conclusion through signs and indications; (6) destiny and fate as assigned by God. (Lisanul Arab, V. 5, Pp. 74-76.)

## Mostly 29 Days for Ramazan

In some narrations, the above Tradition commences with “the month comprises of 29 days”. It's elucidation could be found in another Tradition narrated from Ibne Masood:

“We have (in different years) fasted mostly for 29 days rather than 30 days along with the holy Prophet (Pbuh).” (Abu Dawood, Tirmizi, Musnad Ahmed, Sahih Ibne Khuzaima)

This and other similar Traditions indicate that the month of Ramazan mostly consists of 29 days and rarely 30 days. Hence it becomes obligatory on the Ummah that after completing fasting for 29 days, it should inquire about sighting of moon and thus ensure availing the blessings and rewards of Allah on the proper day, not miss the occasion and undesirably fast for an additional day which would go against the Shariah. Simultaneously, this would also create much disagreement and chaos in all other matters of life. Sighting of Moon is the only source of the correctness of lunar calendars. This factor attains high significance particularly in countries which follow the lunar calendar instead of the solar one. This concludes our discussion on the first special commandment.

## Completion of 30 Days

In the second category of commandments quoted on the authority of Abu Hurairah, Ibne Omar and Ibne Abbas, it is stated that the holy Prophet advised thus:

“Fast after sighting the new moon and stop fasting seeing the new moon. However if anything (clouds etc.) overcasts, then complete 30 days.” (Sahih Bukhari, Nasai, Tirmizi, Darami and others)

This category of commandments carries wide variations in the narrations. Some of the narrators reporting from Hazrath Abu Hurairah are of the opinion that this tradition refers to the month of Sha'aban and not Ramazan. And the other learned exponents of the holy Traditions (Muhaddiseen) have interpreted them variedly. Even the Tradition quoted from Hazrath Ayesha supports the above contention:

“The holy Prophet (Pbuh) would be very particular about the month of Sha'aban than any other month. He would start fasting Ramazan only after sighting the moon. If the sky were overcast with clouds, he would complete 30 days of Sha'aban and then start fasting.” (Abu Dawood, Musnad Ahmed, Sahih Ibne Khuzaima, Daar Qutni)

## Using Discretion is Non-Controversial

Besides theses, certain other traditions too categorically stress for the completion of 30 days for both Sha'aban and Ramazan in case the sky is clouded. Although these are secondary Traditions in term of authority, they have to be taken as commandments of the holy Prophet. Thus, both the prophetic injunctions attain the following proposition and order:

1. It is essential for the Ummah to commence and cease fasting only after sighting the moon.
2. On the 29th day if the sky is clear, the sighting of moon is mandatory.
3. However, if the sky is overcast on the 29th day, two situations arise:
  - (a) to reason out rationally and arrive at a decision.
  - (b) to complete 30 days of fasting.

The first of these alternatives is non-controversial and based on authoritative narrations. In case of the second one, the situation is somewhat contentious.

## Jurists are Divided

What does 'using discretion if the sky is overcast' mean? Three distinct interpretations of the scholars and jurists are available.

According to Imam Ahmed Bin Hambal, in case the sky is overcast on the 29th day of Sha'aban, fasting has to be taken up on the next day. This was the practice of Ibne Omar. Equating 'Faqduru lahu' to 'Dhayyiqoohu' he has said that the month of Sha'aban be restricted to 29 days. This is in consonance with the meaning of 'Qadr' in verse 7 of chapter "Talaq" of the holy Book where the meaning of the word 'Qadr' has been taken to mean 'restriction'. (Vide Al-Mughni, V. 3, P. 90.)

Second is the school of the majority of scholars and jurists. They opine that 'Faqduru lahu' means "to look at the beginning of the month and complete 30 days". This is in consonance with the other Traditions which state that fasting should be completed for 30 days in case the sky is overcast with clouds. These two versions have a common object. They are complimentary to one another. (Fathul Bari, V. 4, P. 121.)

The third of these interpretations takes that 'Faqduru lahu' stands for 'Faqduru bihisabil manazil'. It implies that if the 29th day were overcast, then the new moon should be discerned taking into consideration the movement of the moon and the lunar time-table. (Ibid.)

## Believers in Astronomical Calculations

The following scholars and jurists favour the third posture suggested above.

1. Mutarraf Bin Abdullah Tabai
2. Abu al-Tayyib Ibne Salma Shafai (d 308 AH)
3. Abul Abbas Ibne Suraij Shafai Baghdadi (d 306 AH)
4. Abdullah Bin Muslim Ibne Qutaiba Deenoori (d 276 AH)
5. Imam Abu Hamid Asfaraini Shafai (d 406 AH)
6. Qaffaal (A Shafai scholar)
7. Imam Subki Shafai (exegate, Muhaddith and jurist)
8. Abdul Wahhab Bin Wahbaan Dimishqi Hanafi (d 768 AH)

(Vide Sharah Navavi, V. 7, P. 189; Fathul Bari, V. 4, P. 122; A'rizatul Ahwazi, V. 3, P. 207; Bazlul Majhood, V. 11, P. 109; Aujazul Masalik, V. 5, P. 16; Faizul Bari, V. 3, P. 152; Mo'jamul Muallifeen.)

From this count, the applicability of astronomical calculations is not a recent innovation. In fact, the matter is being discussed from early times. Many moderate scholars and commentators of the Traditions subscribe to this contention. However, some of them like Allama Khattabi, commentator of Abu Dawood (d 388 AH), Imam Baghvi, author of Sharhus Sunnah (d 516 AH), Allama Ibne Salah (d 643 AH) and Allama Ibne Manzoor, author of Lisanul Arab etc. do not prefer it.

This shows that the Shariah does approve resorting to astronomical calculations in moon-sighting.

## Critics of Astronomical Calculations

Unlike them, a few scholars do consider the third adoption as un-Islamic and have criticised it vehemently. Qazi Abu Bakr Ibnul Arabi Maliki, author of A'rizatul Ahwazi, the commentary of Tirmizi (d 544 AH) leads the main criticism. Other critics like Hafiz Ibne Hajar author Fathul Bari, Mulla Ali Qari, commentator Mishkath al-Masabeeh, Allama Shaukani, author of Nailul Autar, Moulana Khaleel Ahmed Saharanpuri, author of Bazlul Majhood, Moulana Mohammed Zakaria, author of Aujazul Masalik followed his line of criticism. All these critics were content with merely repeating the opinion of the former. This indicates that only one scholar belonging to the sixth century Hijri has criticised the procedure. There is none among his predecessors who had come out openly against this step irrespective of whatever school of Fiqh one belonged to. The latter group adopted Ibnul Arabi as the ideal and merely copied his version which is more a satire than serious criticism.

One drastic objection hurled on the advocates of astronomical calculations pertains to the fact that the great Prophet (Pbuh) had nothing to do with astronomy or astrology and neither had he instructed to refer to astronomers about sighting the moon. On the contrary, he had remarked: "We are illiterate people and do not know reading, writing or maintaining accounts." (Sahih Bukhari & Sahih Muslim) So when the Prophet himself has clearly negated the calculations, how can one resort to taking into account the movements of the sun and the moon. It merely proves the ignorance of these Traditions on the part of the advocates of astronomical calculations. (Ibnul Arabi, A'rizatul Ahwazi, V. 3 P. 208.)

## Real Cause for Opposition

The above Tradition is clear in its purpose and meaning. As for as the opposition of the general scholars is concerned, they are skeptic about the science of astronomy. This is evident from what Hafiz Ibne Hajar (d 852 AH) has written quoting Ibne Bazeezah.

“Astronomy is a false art because it is mere conjecture and there is nothing in it which is either certain or final.” (Fat’hul Bari, V. 4, P. 127.)

These critical writings ensure that the actual text of these Traditions does testify the validity of astronomical calculation as well as the science of astronomy. The earlier scholars have, in general, discarded it as they regarded it as an exclusive science which is not common and secondly they regarded it as mere conjecture and not a definite science. Presently, if astronomy is developed in to a definite science, it must not be discarded as taboo allowing dissidence and discard to grow every year in the Ummah. If such a situation prevails long, the literate and educated will lose confidence and faith in religious scholars. Hence before the situation worsens, preventive measures have to be adopted. Certain facts and insights from the Qur’anic verses and Traditions may eliminate several misunderstandings and doubts.

## Divine Solutions for New Issues

Islam is a perennial code of life and it has solutions for all problems of life that may arise till the Doomsday. Both Qur’an and Hadith contain guidelines and commandments that can solve all problems that may arise from time to time. That is why whenever any contentious issue arises, the Ummah has been instructed to refer to Qur’an and Hadith directly as referred to in the verse 59 of chapter 4 quoted earlier. On this basis alone, the Prophet (Pbuh) has assured that “you will never go astray as long as you uphold and practise the teachings of Qur’an and Hadith”. (“Kitabul Qadr” in Muatta Imam Malik)

Since a perpetual religion does consist of such principles and rules whose relevant benefits could be deciphered only in the future. The Book of Allah has several such examples —particularly those that are related to new vistas of sciences. Even the holy Traditions do not lack in such anecdotes. The above prophetic injunction pertaining to the sighting of moon falls under this category. This is certainly a miracle of Hadith in offering solution to the modern-day issue.

In this manner, the Traditions conveying different meanings could be correlated very amicably and convincingly and the wisdom and expediency of the everlasting religion will become evident on all.

## Two Commandments for Two Different Eras

It can well be said that two very clear and specific commandments have been enunciated in the Traditions of the holy Prophet (Pbuh). There is absolutely no contradiction between them. In fact, while one is provisional, the other is permanent, i.e., the commandment that 30 days of fasting should be completed in case the sky is overcast is provisional. In contrast, the injunction pertaining to seeking assistance from astronomical calculations is permanent. There cannot be any objection to the second rule from both traditional and rational point of view. But in case of the first rule such possibilities exist on both the counts.

According to such of the scholars like Abul Abbas Ibne Suraij Shafai Baghdadi who declare the reliability of astronomical calculations, the addressee of the former commandment are the masses while that of the latter are the experts of the astronomical calculations. (Vide Aarizatul Ahwazi and Sharah Navavi

etc.) This statement has generated much controversy. In reality, these commandments are meant for different eras. Although astronomy as a science had not developed at that time, various scholars of that period had recognised its significance and validity. Hence they supported it fully. Their farsighted stand may lend us a helping hand in this scientific world.

## **Astronomy and Astrology**

Knowledge about the movement of the sun and moon in the respective houses of the zodiac etc. is not a new discovery. In fact astronomy is one of the oldest sciences. It developed considerably during Muslim period and many Muslim scholars as well were well-versed in it. Some basic principles guiding the movement of the moon in different zodiacal signs have remained absolutely unchanged from the olden days. Obviously the learned Ulama who were well-versed in it had considered the validity of this science and believed in its reliability.

Generally speaking, astronomy was misunderstood in earlier periods as it was clubbed with astrology under a single science, *Ilm Al-Nujoom* (science of stars). Hence the scholars of those periods had an aversion for it. Nevertheless, for distinguishing purpose, astrology was referred as *Ahkam Al-Nujoom* and astronomy as *Sina'at Al-Nujoom*. (Vide *Miftahus Sada* by Taash Kubrazada)

The science which was disapproved in various holy Traditions was astrology and not astronomy. The latter has been praised in the holy Qur'an and human attention has been drawn in varying modes to study and develop this science. One reference may serve the purpose.

Behold! In the creation of the heavens and the earth and the alternation of Night and Day,—there are indeed Signs for men of understanding,— men who remember Allah standing, sitting, and lying down on their sides, and contemplate the (wonders of) creation, in the heavens and the earth. (Qur'an, 3:190-91)

## **Astronomy and the Book of Allah**

There is reference to the movement of the sun and moon in several verses of the holy Qur'an. It has been said that they are moving in accordance with a set order and calculation.

He it is that cleaveth the day-break (from the dark): He makes the night for rest and tranquility, and the sun and moon for the reckoning (of time): such is the judgment and ordering of (Him), the Exalted in Power, the Omniscient. (Qur'an, 6:96)

The Sun and the Moon follow courses (exactly) computed. (Qur'an, 55:5)

And the Moon,— We have measured for her stations (to traverse) till she returns like the old (and withered) lower part of a date-stalk. (Qur'an, 36:39)

The followers of Islam have been ordained to learn about the movement of the moon in the zodiacal signs:

It is He who made the sun to be a shining glory and the moon to be a light (of beauty), and measured out stages for it, that ye might know the number of years and the count (of time). No wise did Allah create this but in truth and righteousness. (Thus) doth He explain His Signs in detail, for those who know. (Qur'an, 10:5)

In the above verses the movement of the sun and the moon is said to follow a calculated path. And now it is being suggested that you should learn about this calculated movement so that the principles guiding

the appearance of the new moon become clear on you. This knowledge is all the more necessary, for, on it depends the celebrations of the festivals and performance of Haj pilgrimage:

They ask thee concerning the New Moons. Say: They are but signs to mark fixed periods of time in (the affairs of) men and for Pilgrimage. (Qur'an, 2:189)

## **Learning Astronomy is Farz Al-Kifayah**

Astronomy is, thus, a very essential branch of knowledge on which are based many religious and cultural events. Hence its study attains the status of Farz Al-Kifayah according to the Shariah. If all Muslims neglect it, they will be committing a sin because it will not only be against the purpose and aim of the Shariah but disobedience of Allah as well. A team of the scholars should attain proficiency in this science in every era.

## **Realism of Islam**

After the above discussion, there should not be any need to argue over 'We are illiterate community and we are ignorant of reading and writing'. This holy Tradition presents only a situation that existed at the initial stages of Islam. It never points to overlook the need for taking up the study of arts and sciences. Such a situation will be against the preachings of a progressive religion like Islam. There are umpteen number of verses in the holy Qur'an which stress the need for learning and working for the progress of various arts and sciences. The aforesaid Hadith merely indicates that as long as that condition prevails, people should resort to observation and physically sighting the moon. And when it is overcome, other means of knowledge and reflection should invariably be utilised. This is quite reflective of the foresight, realism and perpetual nature of Islam.

## **Initiation of Intellectual Research During Umayyad Period**

That the issue of sighting the Moon had drawn the serious attention right from the beginning is evident from the attitude of the Prophet (Pbuh) himself. This has been pointed out in the Tradition related by Hazrath Ayesha wherein it is stated that the great Prophet used to inquire for the beginning of the month of Sha'aban earlier to the commencement of Ramazan. Other Traditions also point out to this fact.

Comprehending the prophetic nature and intention, Caliph Hazrath Omar Bin Abdul Aziz (63-101 AH) had issued a decree to the residents of Basra. Narrating the Tradition quoted by Ibne Omar wherein it was suggested 'to utilise discretion and reasoning whenever the horizon is overcast', he had instructed that "the best guess is if the moon of Sha'aban has been sighted on such and such day, the fasting will commence on such and such day. However if the moon is sighted earlier to it, then commence fasting as per the physical sighting of the moon." (Abu Dawood, Himms, V. 2, P. 742.)

Through this Tradition, the meaning of "Qadr" or "Taqdeer" also gets determined and since this decree of the caliph has been recorded in Abu Dawood of the Sihah Sitta fame, the most authentic sources of Hadith, it attains the status of a guideline. This encourages us to examine the matter scientifically. It also indicates that astronomy cannot be discarded cheaply whose foundation has been laid out by a rightful caliph. It has to be given due recognition. Shariah admits its credibility and so there should not be any hesitation in accepting it.

## **Rational Approach of Shafai Scholars**

It is strange that Shafai scholars have taken a lead over the Hanafis in adopting a rational attitude towards arguing in favour of astronomical calculations even though the latter are known for their rational approach in all such matters. But they seem to sleep over the whole affair. Whatever be the reason, it is time that they come forward and review this matter of utmost importance, revise their earlier decisions and issue guidelines. This is both a matter related to Shariah as well as to nature. When the holy Qur'an itself stresses the need to study the nature and its manifestations, due regard has to be given to study these celestial phenomenon and utilise its inferences on Shariah matters.

## **Astronomical Calculations are Comprehensive**

Astronomy has now come out as a well compiled and orderly science. There is no need to go in for fresh research and compilation. It has merely to be studied in its present systematised form. Unfortunately, we are not availing the facilities available for such productive activities. In fact, we are disobeying Allah by neglecting the study of nature and the natural phenomena. The creator of the universe has, after describing the principles governing the movements of moon and sun and directing us to learn and reflect about them, has declared:

(Thus) doth He explain His Signs in detail, for those who understand. (Qur'an, 10:5)

## **Dialogue Between Theologists and Astronomers Essential**

To sum up, our theologians should study and probe astronomy with an open mind. It is not a taboo. It is an essential science from Shariah point of view. It is equally obligatory on the experts in the field of astronomy to acquaint our scholars with the movement of moon and its sighting on a scientific basis. A better procedure would be that both these groups, namely the theologians and astronomers come together, discuss and describe these scientific phenomena, arrive at rational and acceptable conclusions and present them before the Ummah so that they be relieved of any mental agitation in future.

## **Astronomical Laws**

At this stage, it has to be born in mind that diverse claims are being made with regard to astronomical calculations. It is claimed that the science has developed to such high level that such charts and maps are drawn that predict the events that may occur hundreds of years later. For example, the happening of solar and lunar eclipses as well as the appearance of comets have been predicted precisely. Their accurate timings, areas of visibility and similar minor details have also been foretold.

Counter claims are also being made. For example, they say that in spite of the phenomenal developments, no positive data is available with regard to appearance of the new moon. This is in spite of the fact that following facts have already been arrived at.

1. The duration of the lunar month is 29 days 12 hours 44 minutes and 03 seconds.
2. The lunar year consists of 354 or 355 days.
3. However it is not possible to definitely assign the number of days for every lunar year since as per the above calculation 12 months would have 354 days 08 hours 48 minutes and 36 seconds.
4. The period of the waning of the moon is sometimes short and sometimes quite long. Hence there is need to fix this period of waning of the moon so that the new moon can be predicted accurately.

Similar complex problems are yet to be sorted out. Unless this is done it is not possible to predict the sighting of the moon correctly. It is now left to the astronomers to perform exhaustive and conclusive research and arrive at such definite rules that foretell events like sighting of moon precisely. When their predictions prove true and unflinching, the theologians must not have any hesitation in accepting them from the Shariah point of view.

## **Time Chart of the Moon**

Islam is a rational and scientific religion. There is nothing which is irrational or non-scientific in and about it. In fact, Islam is the pioneer in the field of science because it strongly advocates experimentation, observation and rational thinking. History bears testimony to it. Hence there should not be any reluctance on the part of Islam and Muslims in accepting the scientific facts, results and inferences. This whole universe is being administered according to a definite plan and discipline. Even the sun and moon are bound by a systematic plan. Several verses of the holy Qur'an do testify to it.

Charts have been drawn accurately for the rising and setting of the sun for the whole year. Such charts are displayed in all mosques. Now if Muslim scientists and astronomers join together and prepare such charts in case of the moon for the whole year indicating the possible changes in the phases, it will be a boon to all. And if the predicted timings and phase changes prove accurate then there is no point in refuting or not believing in them.

This step will also go a long way in demonstrating that Islam is a scientific religion and that there exists no contradiction between it and the present-day scientific researches.

## **Endorsing the Word of Allah**

If this attempt of compiling the charts for moon proves practical, two additional benefits are obtained. One, its application will confirm that holy Qur'an is the Word of Allah, wherein as early as fourteen hundred years ago it has been recorded that sun and moon traverse the skies as per a determined schedule already set and drawn by Him. Secondly, the adherence of sun and moon to sophisticated and fine designs will go to prove that this whole solar system and the universe are all governed by a highly organised and orderly divine system which is neither defective nor imperfect. Obviously, such an orderly system cannot work on its own. A supervisor or administrator is essentially required. This goes to prove that this universe does possess a creator and cherisher who is all-powerful and all-knowing. On this count alone He has already described innumerable physical laws and rules in His Book by which this universe is being maintained so well. As the scientific research is progressing, the veracity of the Allah's Book is being proved and confirmed. Muslims should also look to this aspect of the holy Qur'an.

## **Horizon Variance**

The horizon for the countries situated in different geographical zones is different. Hence the moon rises and sets in them at different timings. Thus when the new moon is sighted in India it may not be sighted simultaneously in different Muslim countries. The sun and the moon rise earlier in countries situated in the eastern hemisphere. Thus while the Fajr prayer is being offered in a country depending on the longitude and latitude in different countries it will be time for offering Zuhr or Asr or Maghrib or Isha prayer. While it is day time in one country it will be night in some other far-off country. Thus it is practically not possible to commence fasting or to celebrate Id on the same day everywhere. Of course, the fasting may commence and the Id celebrated on the same day in the neighbouring countries. The closeby countries can thus be divided into different zones.

The jurists (fuqaha) differ in their views regarding horizon variance. It is not possible to go into the details in this booklet. However, a large number of eminent Muslim scholars and jurists consider that sighting moon in any part of our country is as good as sighting it in the whole of the Indian continent. In fact, they have regarded the horizon of India, Nepal and Pakistan to be the same. Accordingly, if the moon is sighted in any of these countries, Id can be celebrated in the neighbouring countries provided they have completed fasting for 29 or 30 days. Fasting cannot be for 28 or 31 days since the lunar month cannot have 28 or 31 days. (Vide article Rooyat-e-Hilal Ka Mas'ala by Moulana Burhanuddin Sambhali)

It is requested of Muslim scholars and intellectuals to express their opinion in the matter substantiating either their support or dissent. All these opinions will be compiled in a booklet. We are also planning to hold a seminar on the subject shortly.