12. Planet Earth – Human Robot Testing Laboratory

The purpose of creating the universe is to provide infrastructure facility for human robot testing. The Quran invariably refers to the universe as "the skies and the earth" giving so much prominence to the earth because it is created by Allah as the laboratory facility to test human robots. The planet Earth is therefore so designed by Allah to serve as the habitat of man. The provisions given therein are to meet all the human requirements stipulated in the human biosoftware (Adam's *nafs*). The present Earth is a simulated miniature replica of the final abode, Heaven, promised by Allah to the successful human robots. Examination of the universe particularly Earth in the light of divine purpose will reveal close correspondence between the divine objective stated in the Quran and ground realities. This correspondence is yet another undeniable scientific proof of the divinity of the Quran and existence of God Almighty [1]. Such an examination will bring into focus how Earth and extraterrestrial space are designed and created to achieve the divine objective of testing human robots.

Design of Earth vis-à-vis the divine objective

Earth as the venue of human robot testing is central to the divine mission with His creations. A lot of information is now available on various aspects of Earth that will help understand the planet from the standpoint of divine mission [2, 3, 4]. NASA website also gives extensive information.

Studies in astronomy picked up momentum only during the last century. For centuries, astronomers believed that our galaxy, the Milky Way, made up the entire universe. Now we know ours is not the only galaxy; there are billions of galaxies spaced far between. The Quran reveals to us that the cosmic space surrounding Earth is organized into seven strata. This aspect is yet to be studied however. Studies on the stratification of cosmos would certainly throw light on the organizational pattern and distribution of galaxies. A galaxy is a huge collection of millions of stars, dust and gas. The Milky Way is a spiral galaxy consisting of more than 100 billion stars. It is supposed to have come into existence ten to fifteen billion years ago. The earth is part of the solar system in the Milky Way. Solar system is situated on the outer edge of the Milky Way about 28000 light years from the galactic centre [2]. It takes 225 million years to complete one revolution around the Milky Way. Our sun, located centrally in the solar system, is a medium-sized yellow star. It makes up 99.8 per cent of the mass of the solar system. Its diameter is 1,390,000 km. Following the recent de-recognition of the planet Pluto, there are now eight planets belonging to the solar system. These are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Besides, it also has at least three dwarf planets (Pluto is now treated as a dwarf planet), more than 130 planetary satellites, a large number of asteroids (rocky objects in space ranging from a few meters wide to several hundred kilometers) and comets, and the interplanetary medium.

Earth is the fifth largest planet in the solar system which is situated third from the sun. Earth is supposed to have come into existence 4.5 to 4.6 billion years ago. The earth weighs 5.972×10^{21} metric tons and orbits around the sun at an average distance of 149669180 km. While orbiting the sun the earth also rotates with a tilt of 23.5° on its axis. The duration to complete one full rotation (360°) is reckoned as one day. The

rotational speed of the earth starts at zero at either geographic pole and increases toward the equator, where it reaches its maximum of about 1669 km per hour. It takes 365.2422 days to orbit the sun. This duration forms the basis of reckoning a year in Julian calendar as well as in Gregorian calendar. The earth pulls every object towards its centre. This gravitational force prevents every object from being thrown out into the space by its spin. Earth has a satellite, the moon. Its radius is 1738 km. The moon is at a distance of about 384000 km from the earth. The moon takes about 27.32 days to orbit Earth. Lunar calendar is based on cycles of the lunar phase. Hijri calendar followed by the Muslim community is a lunar calendar. As with the earth, the rotational speed starts at zero at either geographic pole and increases toward the lunar equator, where it reaches its maximum of about 16.7 km per hour. A characteristic feature of the components of the universe be it a satellite, planet, star or galaxy, is their constant motion in their prescribed orbits. This is highlighted in the Quran at several places.

اللَّهُ الَّذِي رَفَعَ السَّمَاوَاتِ بِغَيْرٍ عَمَدٍ تَرَوْنَهَا ۖثُمَّ اسْتَوَىٰ عَلَى الْعَرْ شِ^{َّ}وَسَخَّرَ الشَّمْسَ وَالْقَمَرَ ^صُكُلِّ يَجْرِي لِأَجَلٍ مُسَمًّى ^{تَ} يُدَبِّرُ الْأَمْرَ يُفَصِّلُ الْآيَاتِ لَعَلَّكُمْ بِلِقَاءِ رَبِّكُمْ تُوقِنُونَ

13:2 It is Allah who raised the skies without any visible pillars. He then established (Himself) on the Throne. He subjected the sun and the moon (to His law), all moving for a prescribed term. He regulates all affairs. He explains the signs in detail so that you firmly believe in the meeting with your Lord.

وَهُوَ الَّذِي خَلَقَ اللَّيْلَ وَالنَّهَارَ وَالشَّمْسَ وَالْقَمَرَ حُكُلٌّ فِي فَلَكِ بَسْبَحُونَ

21:33 It is He Who created the night and the day, and the sun and the moon; all (the celestial bodies) swim along, each in its rounded course.

It is the orbital motion that creates day and night, seasons, tides etc. We take the durations of orbital motions of the earth and the moon as the basis for calendars. Allah has also prescribed twelve months for a year.

9:36 The number of months in the sight of Allah is twelve (in a year) as per Record of Allah on the day He created the skies and the earth. Of these four are (sacred) prohibited (for war); that is the straight religion. So do not wrong yourselves in them (i.e., during those months). And fight all the *mushriks* as they fight you all. And know that Allah is with the God-conscious.

Accordingly a year is formed of twelve months. We follow it by default as this information has been incorporated by Allah in Adam's *nafs* and it is from that source we get that information like we get knowledge of science and technology. Motion of those celestial bodies has been designed so by the Creator for the benefit of man. Through several verses in the Quran Allah describes and informs us the way He created the universal components to meet the purposes envisaged in His mission in accordance with human needs specified in Adam's *nafs*.

هُوَ الَّذِي جَعَلَ لَكُمُ اللَّيْلَ لِتَسْكُنُوا فِيهِ وَالنَّهَارَ مُبْصِرًا ^{تَ}إِنَّ فِي ذَٰلِكَ لَآيَاتِ لِقَوْمٍ يَسْمَعُونَ 10:67 It is He who made for you the night to rest therein and the day to make things visible (to you). Verily in that are signs for those who listen (to His message).

وَمِنْ رَحْمَتِهِ جَعَلَ لَكُمُ اللَّيْلَ وَالنَّهَارَ لِتَسْكُنُوا فِيهِ وَلِتَبْتَغُوا مِنْ فَضْلِهِ وَلَعَلَّكُمْ تَشْكُرُونَ

28:73 It is out of His mercy He made the night and day for you to rest therein (i.e., in the night) and to seek from His Grace (in the day) and that you may become grateful.

وَمِنْ آيَاتِهِ مَنَامُكُمْ بِاللَّيْلِ وَالنَّهَارِ وَابْتِغَاؤُكُمْ مِنْ فَضْلِهِ ۚ إِنَّ فِي ذَٰلِكَ لَآيَاتِ لِقَوْمٍ يَسْمَعُونَ 30:23 Among His signs are your sleep in the night and your seeking (livelihood) from His bounty during the day. Verily in that are signs for those who hear.

اللَّهُ الَّذِي جَعَلَ لَكُمُ اللَّيْلَ لِتَسْكُنُوا فِيهِ وَالنَّهَارَ مُبْصِرًا ⁵ إِنَّ اللَّمَ لَذُو فَضْلٍ عَلَى النَّاسِ وَلَٰكِنَّ أَكْثَرَ النَّاسِ لَا يَشْكُرُونَ 40:61 It is Allah Who made the night for you, that you may rest therein, and the days as that which helps (you) to see. Verily Allah is full of Grace and Bounty to men: yet most men give no thanks.

وَجَعَلْنَا اللَّبْلَ وَالنَّهَارَ آيَتَيْن^{ِ ل}َفَمَحَوْنَا آيَةَ اللَّبْلِ وَجَعَلْنَا آيَةَ النَّهَارِ مُبْصِرَةً لِتَبْتَغُوا فَضْلًا مِنْ رَبِّكُمْ وَلِتَعْلَمُوا عَدَدَ السِّنِينَ وَالْحِسَابَ ۚ وَكُلَّ شَيْءٍ فَصَلْنَاهُ تَفْصِيلًا

17:12 We have made the night and the day as two (of Our) signs: the sign of the night have We obscured, while the sign of the day We have made to enlighten you; that you may seek bounty from your Lord, and that you may know the number and count of the years. And We have explained everything in detail.

وَجَعَلَ فِيهَا رَوَاسِيَ مِنْ فَوْقِهَا وَبَارَكَ فِيهَا وَقَدَّرَ فِيهَا أَقُوَاتَهَا فِي أَرْبَعَةِ أَيَّامٍ سَوَاءً لِلسَّائِلِينَ 41:10 He set on the (earth) firm mountains high above it, and bestowed blessings on the earth, and fixed therein its nourishment in four Days in accordance with (the needs of) those who seek (sustenance).

وَسَخَّرَ لَكُمُ اللَّيْلَ وَالنَّهَارَ وَالشَّمْسَ وَالْقَمَرَ ^حُوَالنُّجُومُ مُسَخَّرَاتٌ بِأَمْرِهِ⁼ إِنَّ فِي ذَٰلِكَ لَآيَاتٍ لِقَوْمٍ يَعْقِلُونَ وَمَا ذَرَأَ لَكُمْ فِي الْأَرْضِ مُخْتَلِفًا أَلْوَانُهُ⁼ إِنَّ فِي ذَٰلِكَ لَآيَةً لِقَوْمٍ يَذَّكَرُونَ

16:12-13 He has subjected the night and the day, and the sun and the moon to you. The stars are (also) subjected (to you) by His command. Verily in that are signs for people who apply their mind. And (He has subjected to you) the things which He created on this earth in diverse colours. Indeed in that are signs for people who think.

وَسَخَّرَ لَكُمُ الشَّمْسَ وَالْقَمَرَ دَائِبَيْنِ ۖ وَسَخَّرَ لَكُمُ اللَّيْلَ وَالنَّهَارَ

14:33 And He had subjected to you the sun and the moon, both diligently pursuing their courses; and the night and the day has he (also) made subject to you.

وَلَقَدْ جَعَلْنَا فِي السَّمَاءِ بُرُوجًا وَزَيَّنَّاهَا لِلنَّاظِرِينَ

15:16 We (i.e., Allah) have made constellations in the sky and made them beautiful to the beholders.

هُوَ الَّذِي جَعَلَ الشَّمْسَ ضِيَاءً وَالْقَمَرَ نُورًا وَقَدَّرَهُ مَنَازِلَ لِتَعْلَمُوا عَدَدَ السِّنِينَ وَالْحِسَابَ آمَا خَلَقَ اللَّهُ ذَٰلِكَ إِلَّا بِالْحَقِّ يُفَصِّلُ الْآيَاتِ لِقَوْمٍ يَعْلَمُونَ

10:5 It is He who made the sun to be (a source of) light and the moon a shining object and fixed for it (i.e., moon) residences (i.e., orbits) to enable you to know the number of years and for computation (of time). Allah had not created it except with truth. He (i.e., Allah) explains the signs for people who understand.

25:61-62 Blessed is He who made constellations in the skies and placed therein a lamp (i.e., the sun) and a shining moon. And it is He who made the night and the day to follow each other for those who would like to think or show gratitude (to Him).

تُولِجُ اللَّيْلَ فِي النَّهَارِ وَتُولِجُ النَّهَارَ فِي اللَّيْلِ^حُوَتُخْرِجُ الْحَيَّ مِنَ الْمَيِّتِ وَتُخْرِجُ الْمَيِّتِ وَتُخْرِجُ الْمَيِّتِ مِنَ الْحَيِّ ^{لِ}وَتَرْزُقُ مَنْ تَشَاءُ بِغَيْرِ حِسَابٍ

3:27 You (Allah) cause the night enter into the day and You cause the day enter into the night. You bring the living out of the dead and You bring the dead out of the living. You give sustenance to whom You please without measure.

الْحَمْدُ لِثَمِ الَّذِي خَلَقَ السَّمَاوَاتِ وَالْأَرْضَ وَجَعَلَ الظُّلْمَاتِ وَالنُّورَ "ثُمَّ الَّذِينَ كَفَرُوا بِرَبِّهِمْ يَعْدِلُونَ 6:1 Praise be to Allah who created the skies and the earth, and made the darkness and the light. Yet those who reject Faith equate others with their Guardian-Lord.

28:71-73 Say: Do you not see that if Allah were to make the night persist for you till the Day of Judgment, which God other than Allah can bring you light? Will you not then listen? Say: Do you not see that if Allah were to make the day persist for you till the Day of Judgment, which God other than Allah can bring you night in which you can rest? Will you not then see? It is out of His mercy He made the night and day for you to rest therein (i.e., in the night) and to seek from His Grace (in the day) and that you may become grateful.

6:96-97 It is He who cleaves the dawn (from the dark). He made the night calm (for rest) and the sun and moon for reckoning (of time). That is the system ordained by (Allah), the Mighty, the Omniscient. It is He who made the stars for you to serve as guidance in the darkness of the land and the sea. We explain Our signs for people who know.

36:33-35 The dead earth is a sign for them. We give life to it and We produce grain from it of which you eat. And We produce therein gardens of date palms and grapes and We cause springs to gush forth therein – for them to eat from its fruits. It was not their hands that made it. Will they not be then grateful (to Me)?

10:22 It is He who enables you to travel in the land and sea. Thus when you are in ships and the ships are sailing with them under favourable wind (condition) and they are enjoying it, there comes a stormy wind producing waves from all sides and they think they have been surrounded, they pray to Allah sincerely offering (their) duty solely to Him: "If You save us from this, we shall truly be among those grateful (to You)."

42:32-34 And among His signs are the huge mountain-like (ships) sailing in the sea. If He wants, He can make the wind still; then they (i.e., ships) would stay motionless on its (i.e., sea) surface. Verily in this are signs for the patient and the grateful ones. Or He can

destroy them (i.e., ships) because of what they have earned (for their evil deeds); but many (of the sins) He forgives.

رَبُّكُمُ الَّذِي يُزْجِي لَكُمُ الْفُلْكَ فِي الْبَحْرِ لِتَبْتَغُوا مِنْ فَضْلِهِ آلِنَّهُ كَانَ بِكُمْ رَجِيمًا 17:66 It is your Lord who makes the ship sail smoothly for you through the sea to enable you to seek of His bounty. Indeed He is most merciful to you.

These verses are self explanatory. Through these verses Allah draws particular attention to the orbital motion of Earth, the moon, etc., and several other phenomena like the wind and rain indicating that the natural phenomena and rules (in the abioprogram) are so prescribed by Allah as to benefit man. In other words, natural laws and characteristics (e.g., mass, gravitational force, speed of rotation, orbital motion, etc.) of Earth, the moon, the sun, etc. are so prescribed by Allah as to create day and night, phenomena like wind, rain, etc., in accordance with the human requirements stipulated in the microbioprogram of the species (Adam's *nafs*).

Being the centre for testing human robots, Allah has provided sustenance and resources on the earth for His test subjects enough to last the entire period of the test. Whatever there is on the earth, it is created for mankind.

قَالَ الْمُبِطُوا بَعْضُكُمْ لِبَعْضِ عَدُوً "وَلَكُمْ فِي الْأَرْضِ مُسْتَقَرُّ وَمَتَاعٌ إِلَىٰ حِينٍ 7:24 "...On the earth will be your dwelling place and your means of livelihood for a term."

هُوَ الَّذِي جَعَلَ لَكُمُ الْأَرْضَ ذَلُولًا فَامْشُوا فِي مَنَاكِبِهَا وَكُلُوا مِنْ رِزْقِهِ ^{لَ}وَ إِلَيْهِ النَّشُورُ 67:15 It is He Who has made the earth manageable for you, so traverse you through its tracts and enjoy of the sustenance which He furnishes: but to Him is the Resurrection.

هُوَ الَّذِي خَلَقَ لَكُمْ مَا فِي الْأَرْضِ جَمِيعًا ثُمَّ اسْتَوَىٰ إِلَى السَّمَاءِ فَسَوَّاهُنَّ سَبْعَ سَمَاوَاتٍ ⁵وَهُوَ بِكُلِّ شَيْءٍ عَلِيمٌ 2:29 ''It is He Who created for you all things that are on the earth....'

وَهُوَ الَّذِي جَعَلَ لَكُمُ اللَّبْلَ لِبَاسًا وَالنَّوْمَ سُبَاتًا وَجَعَلَ النَّهَارَ نُشُورًا

25:47 And it is He who made the night a cloth and sleep a rest for you. And He made the day a wakening (to become active).

قُلِ الْحَمْدُ بَثِّهِ وَسَلَامٌ عَلَىٰ عِبَادِهِ الَّذِينَ اصْطَفَىٰ ۖ آللَّهُ خَيْرٌ أَمَّا يُشْرِكُونَ أَمَّنْ خَلَقَ السَّمَاوَات وَالأَرْضَ وَأَنْزَلَ لَكُمْ مِنَ السَّمَاءِ مَاءً فَأَنْبَثْنَا بِهِ حَدَائِقَ ذَاتَ بَهْجَة مَا كَانَ لَكُمُ أَنْ تُنْبِتُوا شَجَرَ هَا ۖ أَلِلْهُ مَعَ اللَّهِ تَبْلُ هُمُ قَوْمٌ يَعْدِلُونَ أَمَّنْ جَعَلَ الْأَرْضَ قَرَارًا وَجَعَلَ خِلَالَهَا أَنْهَارًا وَجَعَلَ لَهَا رَوَاسِيَ وَجَعَلَ بَيْنَ الْبَحْرَيْنِ حَاجِزًا ⁶ أَلِلَّهُ مَعَ اللَّهِ مَعَ اللَّهِ تَبْلُ هُمُ قَوْمٌ يَعْدِلُونَ أَمَّنْ يُجِيبُ الْمُضْطَرَّ إِذَا دَعَاهُ وَيَكْشِفُ السُّوءَ وَيَجْعَلُهُ خُلَفَاءَ الأَرْضِ ⁶ أَإِلَهُ مَعَ اللَّهِ مَعَ اللَّهِ مَعَ اللَّهِ مَعَ اللَّهِ بَلْ أَكْثَرُهُمُ لَا يَعْلَمُونَ أَمَّنْ يُجِيبُ الْمُضْطَرَّ إِذَا دَعَاهُ وَيَكْشِفُ السُّوءَ وَيَجْعَلُكُمْ خُلَفَاءَ الأَرْضِ ⁶ إَلِلَّهُ مَعَ اللَّهِ مَعَ وَالْبَحْرِ وَمَنْ يُرْسِلُ الرَّيَاحَ بُشُرًا بَيْنَ يَدَيْ رَحْمَتِهِ ⁶ إَلِّهُ مَعَ اللَّهِ عَمَا يَشْرِكُونَ أَمَّنْ يَعْدِيكُمُ فِي ظُلُمَاتِ الْبَرَ وَالْبَحْرِ وَمَنْ يُرْسِلُ الرَّيَاحَ بُشُرًا بَيْنَ يَدَيْ رَحْمَتِهِ أَلِلَهُ مَعَ اللَّهِ عَمَا يَنْ السَمَاءِ وَ الْأَرْضِ وَ الْأَنْ مَعَ اللَّهِ مَعَ اللَّهُ مَعَ اللَّهُ مَعَ اللَّهُ مَعَ اللَّهُ مَعَ اللَهُ مَعَ اللَّهُ مَنْ يَعْذَلُ الْمَعْ وَالْبَحْرِ وَمَنَ أَمَنْ يَبْدَأُ الْحَلْقَ ثَمَ يَعْذَى الْمَنْ عَمَعَ اللَّهُ مَعَ اللَّهَ مَعَ اللَّهُ عَلَيْ الْمُهُ مَ وَعَمَا يَعْذَى أَوَا لِكُمَ عَلَيْهُ مَا الْنَهِ مَنْ عَائِنَا يُنْ يُ وَالْمَعْنَ اللَّهُ مَا يَعْتَى اللَّهُ مَعَ اللَهُ مَعَ اللَّهُ مَنَ الْعَلْ

27:59-65 Say: Praise be to Allah and peace on his servants (prophets) whom He has chosen. Is Allah better or what they associate (with Him)? Or (the One) who created the skies and the earth and who sent down rain for you from the sky? Then with it We produced beautiful gardens (i.e., crops). You cannot make the trees in them grow. Is there (another) God along with Allah? Nay, they are people who deviate (from truth). Or (the One) who made the earth a habitat, made rivers through it, set thereon nails (i.e., mountains) and made a barrier between two seas? Is there (another) God along with Allah? Nay, most of them do not realize. Or (the One) who answers (the prayers of) the distressed when he calls upon Him and who removes evil and makes you representatives

of the earth? Is there (another) God along with Allah? Little do they think. Or (the One) who guides you through the darkness of the land and the sea, and who sends the winds as good news before (the arrival of) His mercy (i.e., the rain)? Is there (another) God along with Allah? Exalted is Allah above what they associate with Him! Or (the One) who originates creation then repeats it, and who gives you sustenance from the sky and the earth? Is there (another) God along with Allah? Say: Bring your evidence, if you are telling the truth. Say: None in the skies or in the earth knows the unseen except Allah nor do they know when they shall be raised up (for Judgment).

اللَّهُ الَّذِي جَعَلَ لَكُمُ الْأَرْضَ قَرَارًا وَالسَّمَاءَ بِنَاءً وَصَوَّرَكُمْ فَأَحْسَنَ صُوَرَكُمْ وَرَزَقَكُمْ مِنَ الطَّيِّبَاتِ ^{عَ}ذَٰلِكُمُ اللَّهُ رَبُّكُمْ ^{عَ}فَتَبَارَكَ اللَّهُ رَبُّ الْعَالَمِينَ

40:64 It is Allah who made the earth habitat for you and the sky a canopy. He gave you shape and perfected your shape, and provided for you sustenance from good things. That is Allah, your Lord. Glory to Allah, the Lord of the worlds.

وَاللَّهُ جَعَلَ لَكُمُ الْأَرْضَ بِسَاطًا لِتَسْلُكُوا مِنْهَا سُبُلًا فِجَاجًا

71:19-20 And Allah made the earth a spread-out (i.e., as carpet) for you to enable you to go about the spacious paths.

أَلَمْ نَجْعَلِ الْأَرْضَ مِهَادًا وَ الْجِبَالَ أَوْتَادًا وَخَلَقْنَاكُمْ أَزْوَاجًا وَجَعَلْنَا نَوْمَكُمْ سُبَاتًا وَجَعَلْنَا اللَّيْلَ لِبَاسًا وَجَعَلْنَا النَّهَارَ مَعَاشًا وَبَتَيْنَا فَوُقَكُمْ سَبْعًا شِدَادًا وَجَعَلْنَا سِرَاجًا وَأَنْزَلْنَا مِنَ الْمُعْصِرَاتِ مَاءً تَجَاجًا لِنُخْرِجَ بِهِ حَبًّا وَنَبَاتًا وَجَعَلْنَا الْأَفَافًا 78:6-16 Have We not made the earth a vast expanse? And the mountains as pegs? And created you in pairs? And made your sleep rest? And made the night a cloth? And made the day (for earning) livelihood? And built over you the powerful seven (skies)? And placed (therein) a blazing lamp? And sent down from the clouds water in abundance to produce with it cereals and (different) plants and gardens with luxuriant vegetation?

أَلَمْ نَجْعَلِ الْأَرْضَ كِفَاتًا أَحْيَاءً وَأَمْوَاتًا وَجَعَلْنَا فِيهَا رَوَاسِيَ شَامِخَاتٍ وَأَسْقَيْنَاكُمْ مَاءً فُرَاتًا 77:25-27 Have We not made the earth a receptacle (for) the living and the dead, and made therein high mountains standing firm and gave you pure water?

أَأَنْتُمْ أَشَدُّ خَلْقًا أَمِ السَّمَاءُ ^عَبَنَاهَا رَفَعَ سَمْكَهَا فَسَوَّاهَا وَأَغْطَشَ لَيْلَهَا وَأَخْرَجَ ضُحَاهَا وَالْأَرْضَ بَعْدَ ذَٰلِكَ دَحَاهَا أَخْرَجَ مِنْهَا مَاءَهَا وَمَرْ عَاهَا وَالْجِبَالَ أَرْسَاهَا مَتَاعًا لَكُمْ وَلِأَنْعَامِكُمْ

79:27-33 Is it you the more difficult to create or the sky? (Allah) had built it. He raised its canopy and then perfected it. He made its night dark and brought out its light (i.e., day). And after that He extended the earth (to a vast expanse). He brought out from it its water and its pasture. And He fixed the mountains firmly as resources for you and your cattle.

فَلْيَنْظُرِ الْإِنْسَانُ إِلَىٰ طَعَامِهِ أَنَّا صَبَبْنَا الْمَاءَ صَبًّا ثُمَّ شَقَقْنَا الْأَرْضَ شَقًّا فَأَنْبَتْنَا فِيهَا حَبًّا وَعِنَبًا وَقَصْبًا وَزَيْتُونًا وَنَخْلًا وَحَدَائِقَ غُلْبًا وَفَاكِهَةً وَأَبًّا مَتَاعًا لَكُمْ وَلِأَنْعَامِكُمْ

80:24-32 Then let man look at his food, (and how We provide it): For that We pour forth water in abundance, and We split the earth in fragments, and produce therein corn, and Grapes and nutritious plants, and Olives and Dates, and enclosed Gardens, dense with lofty trees, and fruits and fodder for use and convenience to you and your cattle.

وَلَقَدْ مَكَنَّاكُمْ فِي الْأَرْضِ وَجَعَلْنَا لَكُمْ فِيهَا مَعَايِشَ - قَلِيلًا مَا تَشْكُرُونَ

7:10 It is We Who placed you with authority on the earth, and provided you therein with means for the fulfillment of your life: small are the thanks that you give.

وَمَا أُوتِيَتُمْ مِنْ شَيْءٍ فَمَتَاعُ الْحَيَاةِ الدُّنْيَا وَزِينَتُهَا ۚ وَمَا عِنْدَ اللَّهِ خَيْرٌ وَأَبْقَى ۚ أَفَلَا تَعْقِلُونَ

28:60 The (material) things which you are given are but the conveniences of this life and the glitter thereof; but that which is with Allah is better and more enduring: will you not then be wise?

The most important message that emerges from these revelations is the anthropocentric orientation of the universal system. This is what is implied in Allah's declaration that He made everything for mankind. The centrality of human species in the divine scheme of things is thus quite obvious. Man is at the centre of all creations and it is for him Allah created everything else. Planet Earth, the habitat of man, which is the divine laboratory for human robot testing, assumes special significance in this respect. The position of Earth in the overall divine scheme cannot be overemphasized. This is very much reflected in the Quran. Allah gives particular emphasis to Earth in the Quran by distinguishing it from the rest of the universe. The infrastructure (physical universe) created for testing human species is invariably referred to in the Quran as 'skies and Earth', which is suggestive of Earth's significance in the divine scheme.

Being the habitat of human race Earth has been created by Allah in accordance with requirements stipulated in human microbioprogram (Adam's *nafs*). This also implies that there is no other region in the universe that can serve as habitat for man. The rest of the universal components (e.g., large number of galaxies) or the 'skies' referred to in the Quran are more of a supporting system in the overall design. The sky has been made a canopy for the earth and beautiful to look at by adorning with stars.

The Quran speaks at length about the facilities, amenities and infrastructure provided in the test centre – the planet Earth. Some resources have been mentioned in a few verses already quoted. The verses given below provide examples of physical resources, plant resources, animal resources and marine resources provided on Earth. The verses are self-explanatory. Through these verses Allah provides a glimpse of His organizational set up of Earth for the accomplishment of His mission. We have to look at every resource including those not mentioned in the Quran from this divine perspective.

a) Physical resources

الَّذِي جَعَلَ لَكُمُ الْأَرْضَ فِرَاشًا وَالسَّمَاءَ بِنَاءً وَأَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجَ بِهِ مِنَ الثَّمَرَاتِ رِزْقًا لَكُمْ^{لِّ}فَلَا تَجْعَلُوا بِنَّهِ أَنْدَادًا وَأَنْتُمْ تَعْلَمُونَ

2:22 (It is He) Who has made the earth your couch, and the heavens your canopy; and sent down rain from the heavens; and brought forth therewith fruits for your sustenance; then set not up rivals to Allah when you know (the truth).

2:189 "They ask you concerning the new moons (lunar cycles). Say: They are indicators of time periods for mankind and for Hajj pilgrimage...."

وَأَلْقَىٰ فِي الْأَرْضِ رَوَاسِيَ أَنْ تَمِيدَ بِكُمْ وَأَنْهَارًا وَسُبُلًا لَعَلَّكُمْ تَهْتَدُونَ وَ عَلَامَاتٍ وَبِالنَّجْمِ هُمْ يَهْتَدُونَ 16:15-16 And He has set up on the earth mountains standing firm lest it (i.e., earth) should tilt with you; and (has also provided) rivers and roads that you may guide yourselves. And (many) landmarks, and by the stars they guide themselves.

وَجَعَلَ فِيهَا رَوَاسِيَ مِنْ فَوْقِهَا وَبَارَكَ فِيهَا وَقَدَّرَ فِيهَا أَقْوَاتَهَا فِي أَرْبَعَةِ أَيَّامٍ سَوَاءً لِلسَّائِلِينَ

41:10 He set on the (earth), mountains standing firm, high above it, and bestowed blessings on the earth, and measure therein all things to give them nourishment in due proportion, in four Days, in accordance with (the needs of) those who seek (Sustenance).

وَهُوَ الَّذِي مَدَّ الْأَرْضَ وَجَعَلَ فِيهَا رَوَاسِيَ وَأَنْهَارًا ^حُوَمِنْ كُلِّ الثَّمَرَاتِ جَعَلَ فِيهَا زَوْجَيْنِ اتْنَيْنِ ^حُيُغْشِي اللَّيْلَ النَّهَارَ [َ] إِنَّ فِي ذَٰلِكَ لَاَيَاتٍ لِقَرْمٍ يَتَفَكَّرُونَ

13:3 And it is He who spread out the earth and set thereon mountains standing firm and (flowing) rivers. And He made all kinds of fruits in two pairs. He draws the night as veil over the day. Verily in that are signs for those who think.

وَجَعَلْنَا فِي الْأَرْضِ رَوَاسِيَ أَنْ تَمِيدَ بِهِمْ وَجَعَلْنَا فِيهَا فِجَاجًا سُبُلًا لَعَلَّهُمْ يَهْتَدُونَ وَجَعَلْنَا السَّمَاءَ سَقْفًا مَحْفُوظًا ۖ وَهُمْ عَنْ آيَاتِهَا مُعْرِضُونَ

21:31-32 And We have made mountains firmly fixed on the earth to prevent its tilting with them. And We have made therein broad tracks so that they find their way. And We have made the sky a well-guarded canopy. Yet, they turn away from its signs!

أَلَمْ تَرَ أَنَّ اللَّهَ أَنْزَلَ مِنَ السَّمَاءِ مَاءً فَتُصْبِحُ الْأَرْضُ مُخْضَرَةً أَنِّ اللَّهَ لَطِيفٌ خَبِيرٌ 22:63 Do you not see that Allah sends down rain from the sky and the earth thus becomes green? Indeed Allah has deep knowledge and is well acquainted (with everything).

وَالْأَرْضَ مَدَدْنَاهَا وَأَلْقَيْنَا فِيهَا رَوَاسِيَ وَأَنْبَتْنَا فِيهَا مِنْ كُلِّ شَيْءٍ مَوْزُونِ وَجَعَلْنَا لَكُمْ فِيهَا مَعَايِشَ وَمَنْ لَسْتُمْ لَهُ بِرَازِقِينَ وَإِنْ مِنْ شَيْءٍ إِلَّا عِنْدَنَا خَزَائِنُهُ وَمَا نُنَزِّلُهُ إِلَّا بِقَدَرٍ مَعْلُومٍ وَأَرْسَلْنَا الرِّيَاحَ لَوَاقِحَ فَأَنْزَلْنَا مِنَ السَّمَاءِ مَاءً فَأَسْقَيْنَاكُمُوهُ وَمَا أَنْثُمْ لَهُ بِخَازِنِينَ

15:19-22 And the earth We have spread out (like a carpet); set thereon mountains firm and immovable; and produced therein all kinds of things in due balance. And We have provided therein means of subsistence,- for you and for those for whose sustenance you are not responsible. And there is not a thing but its (sources and) treasures (inexhaustible) are with Us; but We only send down thereof in due and ascertainable measures. And We send the fecundating winds, then cause the rain to descend from the sky, therewith providing you with water (in abundance), though you are not the guardians of its stores.

هُوَ الَّذِي أَنْزَلَ مِنَ السَّمَاءِ مَاءً ^حَلَكُمْ مِنْهُ شَرَابٌ وَمِنْهُ شَجَرٌ فِيهِ تُسِيمُونَ يُنْبِتُ لَكُمْ بِهِ الزَّرْعَ وَالزَّيْتُونَ وَالنَّخِيلَ وَالْأَعْنَابَ وَمِنْ كُلُّ النَّمَرَاتِ⁼ إِنَّ فِي ذَلِكَ لَآيَةً لِقَوْمٍ يَتَفَكَّرُونَ

16:10-11 It is He who sends down rain from the sky for you, from it you drink and from it (you grow) the trees on which you graze (i.e., feed) your cattle. With it (i.e., rainwater) He produces for you crops, olives, date palms, grapes and every kind of fruit. Verily in this is a sign for those who think.

أَلَمْ تَرَ أَنَّ اللَّهَ يُزْجِي سَحَابًا ثُمَّ يُؤَلِّفُ بَيْنَهُ ثُمَّ يَجْعَلُهُ رُكَامًا فَتَرَى الْوَدْقَ يَخْرُجُ مِنْ خِلَالِهِ وَيُنَزِّلُ مِنَ السَّمَاءِ مِنْ جِبَالٍ فِيهَا مِنْ بَرَدٍ فَيُصِيبُ بِهِ مَنْ يَشَاءُ وَيَصْرِفُهُ عَنْ مَنْ يَشَاءُ كَكَادُ سَنَا بَرُقِهِ يَذْهَبُ بِالْأَبْصَارِ

24:43 Have you not seen Allah driving the clouds gently, then unites them together, then makes them into a heap? Then you see rain coming out from their midst. And He sends down hail from the sky – from the mountain masses (of clouds) therein. He strikes with it whom He intends and He diverts it from whom He pleases. The vivid flash of its lightning almost blinds the eyes.

وَكَأَيِّنْ مِنْ دَابَّةٍ لَا تَحْمِلُ رِزْقَهَا اللَّهُ يَرْزُقُهَا وَإِيَّاكُمْ ۖ وَهُوَ السَّمِيعُ الْعَلِيمُ

29:60 So many are the creatures that do not carry their own sustenance! It is Allah who feeds them and you. And He hears and knows (all things).

22:65 See you not that Allah has made subject to you all that is on the earth, and the ships that sail through the sea by His Command? He withholds the sky (rain) from failing on the earth except by His leave: for Allah is Most Kind and Most Merciful to man.

اللَّهُ الَّذِي سَخَرَ لَكُمُ الْبَحْرَ لِتَجْرِيَ الْفُلْكُ فِيهِ بِأَمْرِهِ وَلِتَبْتَغُوا مِنْ فَضْلِهِ وَلَعَلَّكُمْ تَشْكُرُونَ 45:12 It is Allah Who has subjected the sea to you, that ships may sail through it by His command, that you may seek of his Bounty, and that you may be grateful.

اللَّهُ الَّذِي خَلَقَ السَّمَاوَاتِ وَالْأَرْضَ وَأَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجَ بِهِ مِنَ الثَّمَرَاتِ رِزْقًا لَكُمْ ۖ وَسَخَّرَ لَكُمُ الْفُلُكَ لِتَجْرِيَ فِي الْبَحْرِ بِأَمْرِهِ ۖ وَسَخَّرَ لَكُمُ الْأُنْهَارَ وَسَخَّرَ لَكُمُ الشَّمْسَ وَالْقَمَرَ دَائِيَيْنِ ۖ وَسَخَر

14:32-33 It is Allah who created the skies and the earth and sent down rain from the skies and with it He produced fruits (i.e., crop produce) as food for you. And He subjected the ships to you so that they sail through the sea by His command and the rivers (also) He had subjected to you. And He subjected to you the sun and the moon both as regular (phenomena), and the night and the day (also) He had subjected to you.

وَلَقَدْ كَرَّمْنَا بَنِي آدَمَ وَحَمَلْنَاهُمْ فِي الْبَرِّ وَالْبَحْرِ وَرَزَقْنَاهُمْ مِنَ الطَّيِّبَاتِ وَفَضَّلْنَاهُمْ عَلَى كَثِير مِمَّنْ خَلَقْنَا تَفْضِيلًا

17:70 We have honoured the children of Adam; provided them with transport on land and sea; given them for sustenance things good and pure; and conferred on them special favours, above a great part of our creation.

b) Plant resources

وَالْأَرْضَ وَضَعَهَا لِلْأَنَامِ فِيهَا فَاكِهَةً وَالنَّخْلُ ذَاتُ الْأَكْمَامِ وَالْحَبُّ ذُو الْعَصْفِ وَالرَّيْحَانُ

55:10-12 It is He Who has spread out the earth for (His) creatures: Therein is fruit and date-palms, producing spathes (enclosing dates); Also corn, with (its) leaves and stalk for fodder, and sweet-smelling plants. Then which of the favours of your Lord will you deny?

16:10-11 It is He who sends down rain from the sky: from it you drink, and out of it (grows) the vegetation on which you feed your cattle. With it He produces for you corn, olives, date-palms, grapes and every kind of fruit: verily in this is a sign for those who give thought.

35:27 Do you not see that Allah sends down rain from the sky? Then We produce with it (i.e., rainwater) fruits of various colours. And in the mountains there are white and red paths of various hues and (also) intense black.

7:57 It is He who sends the winds as glad tidings ahead of His mercy (i.e., rain). Thus when they had carried heavy clouds, We drive them to a lifeless land; then We sent down rain with it and then We produce all kinds of fruits with that. Like that We will rise up the dead. You may think over (that).

6:99 It is He who sends down rain from the skies. With it We germinate all kinds of (seeds); then We produce from that green (crops) from which We produce closely packed grains; and from the date palm – from its bunches – (We produce) clusters of dates hanging down; and (We produce) gardens of grapes, olives and pomegranates of similar and dissimilar (varieties). Look at its fruit when it begins to form and when it ripens. Behold! In those things there are signs for the believing people.

وَنَزَّلْنَا مِنَ السَّمَاءِ مَاءً مُبَارَكًا فَأَنْبَتْنَا بِهِ جَنَّاتٍ وَحَبَّ الْحَصِيدِ وَالنَّخْلَ بَاسِقَاتٍ لَهَا طَلْعٌ نَضِيدٌ رِزْقًا لِلْعِبَادِ ۖ وَأَحْبَيْنَا بِهِ بَلْدَةً مَيْتًا ۚ كَذَٰلِكَ الْخُرُوجُ

50:9-11 And We send down from the sky rain as blessing and We produce with it gardens and harvestable grains. And tall date palms with closely packed bunches as sustenance for (My) servants. And with it We give life to a dead land. So will be the resurrection.

6:141 It is He who makes gardens with or without trellises (i.e., with or without vines and creepers), and dates and crops with different kinds of fruits, and olives and pomegranates of similar and different varieties. Eat their fruits when they bear fruit, and give its dues (i.e., debts, etc.) on the day of its harvest, and do not waste (by extravagance). Verily He does not like extravagant people.

وَفِي الْأَرْضِ قِطَعٌ مُتَجَاوِرَاتٌ وَجَنَّاتٌ مِنْ أَعْنَابٍ وَزَرْعٌ وَنَخِيلٌ صِنْوَانٌ وَغَيْرُ صِنْوَانٍ يُسْقَىٰ بِمَاءٍ وَاحِدٍ وَنُفَضِّلُ بَعْضَهَا عَلَىٰ بَعْضٍ فِي الْأُكُلِ^عَ</sup>إِنَّ فِي ذَٰلِكَ لَآيَاتٍ لِقَوْمٍ يَعْقِلُونَ

13:4 And on the earth are tracts situated side by side, and gardens of grapes and crop fields, and date palms with multiple shoots or otherwise - (all) watered with the same water. Yet We make some better than the others to eat. Verily in that are signs for those who understand.

20:53-54 (Allah) Who made the earth like a spread out carpet for you, provided therein routes, and sent down water from the sky. With it We produced pairs of diverse plants. You eat and let your cattle graze. Verily, in that are signs for intelligent people.

c) Animal resources

36:71-73 See they not that it is We Who have created for them - among the things which Our hands have fashioned - cattle, which are under their dominion?- And that We have subjected them to their (use)? Of them some do carry them and some they eat: And they have (other) profits from them (besides), and they get (milk) to drink. Will they not then be grateful? وَالنَّهُ جَعَلَ لَكُمْ مِنْ بُيُوتِكُمْ سَكَنًا وَجَعَلَ لَكُمْ مِنْ جُلُودِ الْأَنْعَامِ بُيُوتًا تَسْتَخِفُّونَهَا يَوْمَ ظَعْنِكُمْ وَيَوْمَ إِقَامَتِكُمْ ^تَوَمِنْ أَصْوَافِهَا وَأَوْبَارِهَا وَأَشْعَارِهَا أَثَاثًا وَمَتَاعًا إِلَىٰ حِينٍ

16:80 It is Allah Who made your habitations homes of rest and quiet for you; and made for you, out of the skins of animals, (tents for) dwellings, which you find so light (and handy) when you travel and when you stop (in your travels); and out of their wool, and their soft fibres (between wool and hair), and their hair, rich stuff and articles of convenience (to serve you) for a time.

اللَّٰهُ الَّذِي جَعَلَ لَكُمُ الْأَنْعَامَ لِتَرْكَبُوا مِنْهَا وَمِنْهَا تَأْكُلُونَ وَلَكُمْ فِيهَا مَنَافِعُ وَلِتَبْلُغُوا عَلَيْهَا حَاجَةً فِي صُدُورِكُمْ وَعَلَيْهَا وَعَلَى الْفُاكِ تُحْمَلُونَ

40:79-80 It is Allah Who made cattle for you, that you may use some for riding and some for food; And there are (other) advantages in them for you (besides); that you may through them attain to any need (there may be) in your hearts; and on them and on ships you are carried.

وَالْأَنْعَامَ خَلَقَهَا ۖلَكُمْ فِيهَا دِفْءٌ وَمَنَافِعُ وَمِنْهَا تَأْكُلُونَ وَلَكُمْ فِيهَا جَمَالٌ حِينَ تُرِيحُونَ وَحِينَ تَسْرَحُونَ وَتَحْمِلُ أَنْقَالَكُمْ إِلَىٰ بَلَد لَمْ تَكُونُوا بَالِغِيهِ إِلَّا بِشِقِّ الْأَنْفُسِ ۚ إِنَّ رَبَّكُمْ لَرَءُوفٌ رَحِيمٌ وَالْخَيْلَ وَالْبِغَالَ وَالْحَمِيرَ لِتَرْكَبُوهَا وَزِينَةً ۖ وَيَخْلُقُ مَا لَا تَعْلَّمُونَ

16:5-8 And He created cattle. You have in them warmth and numerous benefits and you eat from them (i.e., meat). And you find beauty in them while you take them to rest and while you leave them for grazing. And they carry your heavy loads to countries where you cannot (otherwise) reach except with (considerable) physical strain. Your Lord is indeed Most Kind, Most Merciful. And (He created) horses, mules and donkeys for you to ride and for flaunting. And He has created (other) things of which you have no knowledge.

وَمِنَ الْأَنْعَامِ حَمُولَةً وَفَرْشًا كَلُوا مِمَّا رَزَقَكُمُ اللَّهُ وَلَا تَتَّبِعُوا خُطُوَاتِ الشَّيْطَان آإنَّهُ لَكُمْ عَدُقٌ مُبِينٌ

6:142 And among cattle are some for carrying burden and some small. Eat what Allah has provided for you and do not follow the footsteps of the Satan. Verily he is an avowed enemy to you.

وَإِنَّ لَكُمْ فِي الْأَنْعَامِ لَعِبْرَةً مَنْسُقِيكُمْ مِمَّا فِي بُطُونِهَا وَلَكُمْ فِيهَا مَنَافِعُ كَثِيرَةٌ وَمِنْهَا تَأْكُلُونَ وَعَلَيْهَا وَعَلَى الْفُلْكِ تُحْمَلُونَ 23:21-22 And in cattle you have a lesson. From their bellies We produce (milk) for you to drink. There are in them numerous (other) benefits for you and you (also) eat them. And you are carried on them as well as on ships (for journey).

وَالَّذِي خَلَقَ الْأَزْوَاجَ كُلَّهَا وَجَعَلَ لَكُمْ مِنَ الْفُلْكِ وَالْأَنْعَامِ مَا تَرْكَبُونَ لِتَسْتَوُوا عَلَىٰ ظُهُورِهِ ثُمَّ تَذْكُرُوا نِعْمَةَ رَبِّكُمْ إِذَا اسْتَوَيْتُمْ عَلَيْهِ وَتَقُولُوا سُبْحَانَ الَّذِي سَخَّرَ لَنَا هَٰذَا وَمَا كُنَّا لَهُ مُقْرِنِينَ

43:12-13 (The One) who created in pairs all things and made for you ships and cattle on which you ride to enable you to sit on its back and to remember the favour of your Lord after sitting on it and say, "Glory to Him who subjected it to us. And we could not have tamed it (by ourselves)."

It is pertinent to note that these verses make it clear that animals are created for meeting the varied needs and requirements of human race. That is why the animals are subjected to us, which means that Allah has designed the biosoftware of the animals in such a way to make them subservient to us. Otherwise we will not be able to even tame them (Q. 43:12-13).

d) Marine resources

وَهُوَ الَّذِي سَخَّرَ الْبَحْرَ لِتَأْكُلُوا مِنْهُ لَحْمًا طَرِيًّا وَتَسْتَخْرِجُوا مِنْهُ حِلْيَةً تَلْبَسُونَهَا وَتَرَى الْفُلْكَ مَوَاخِرَ فِيهِ وَلِتَبْتَغُوا مِنْ فَضْلِهِ وَلَعَلَّكُمْ تَشْكُرُونَ

16:14 It is He Who has made the sea subject, that you may eat thereof flesh that is fresh and tender, and that you may extract there from ornaments to wear; and you see the ships therein that plough the waves, that you may seek (thus) of the bounty of Allah and that you may be grateful.

Through these and many other verses, the Quran enumerates so many kinds of resources and natural mechanisms (e.g., rain, wind, sailing of ships, etc.) that are provided for the benefit of man during the test period on the earth.

e) Other favours

One of the many unique characteristics of man is his shyness for nakedness. Allah gave clothing to cover the nudity and as an adornment and protection from heat, made spouses from among ourselves, gave homes, children and grandchildren from our spouses. Allah made our homes comfortable abode for us. And He made cattle skins suitable for making tents, which is light and handy while travelling and camping. From their wool, their soft fibres and their hair, we make useful things (like warm clothing) and devices.

يَا بَنِي آدَمَ قَدْ أَنْزَلْنَا عَلَيْكُمْ لِبَاسًا يُوَارِي سَوْ آتِكُمْ وَرِيشًا ^توَلِبَاسُ التَّقُوَىٰ ذَٰلِكَ خَيْرٌ ^{تَ}ذَٰلِكَ مِنْ آيَاتِ اللَّهِ لَعَلَّهُمْ يَنَّكَّرُونَ 7:26 O children of Adam (i.e., mankind)! We have sent down to you clothing to cover your nudity and as an adornment. But the fabric of God-consciousness (i.e., *taqwa*) is the best. That is among the signs of Allah for them to ponder over.

وَاللَّهُ جَعَلَ لَكُمْ مِنْ بُيُوتِكُمْ سَكَنًا وَجَعَلَ لَكُمْ مِنْ جُلُودِ الْأَنْعَامِ بُيُوتًا تَسْتَخِفُونَهَا يَوْمَ ظَعْنِكُمْ ويَوْمَ إِقَامَتِكُمْ ^تَوَمِنْ أَصْوَافِهَا وَأَوْبَارِ هَا وَأَشْعَارِهَا أَنَّاثًا وَمَتَاعًا إِلَىٰ حِينِ وَاللَّهُ جَعَلَ لَكُمْ مِمَّا خَلَقَ ظِلَالًا وَجَعَلَ لَكُمْ مِنَ الْجِبَالِ أَكْنَانًا وَجَعَلَ لَكُمْ سَرَابِيلَ تَقِيكُمُ الْحَرَّ وَسَرَابِيلَ تَقِيكُمْ بَأْسَكُمْ كَذَلِكَ يَتْمُ نِعْمَتَهُ عَلَيْكُمْ لَعَلَّكُمْ سُنْلِمُونَ

16:80-81 Allah made your homes an abode for you. And He made for you houses (tents) from cattle skins, which you find so light (and handy) while traveling and while camping; and from their wool, their soft fibres and their hair, (He made for you) devices and useful articles (lasting) for a period. Allah made shade for you from things He created and He made for you places of refuge in the mountains; He made for you garments to protect you from heat, and clothes to protect you from severity (of battle). Thus He completes His favours for you that you may submit to His will (in Islam).

All these are Allah's favours and blessings to human beings undergoing the divine test in this laboratory - Earth. Apart from that, these are all signs (*ayaat*) of Allah's power and wisdom. This is explicitly mentioned in many of the verses quoted above.

Evaluation of the laboratory infrastructure vis-à-vis the divine purpose

An effective method of ascertaining the scientific validity of the Quranic revelation of the purpose of creation of the universe as infrastructure for testing human beings is through evaluation of the created system from this teleological angle. Such an analysis is attempted here in the light of the verses quoted above.

Total area of the earth is $510.072 \text{ million } \text{km}^2$ of which land is $148.94 \text{ million } \text{km}^2$ (29.2%) and water $361.132 \text{ million } \text{km}^2$ (70.8%) [5]. Natural resources may be either biotic (living) or abiotic (non-living). They are materials essential or useful to man. These include land, air, water, plants, animals, fish, birds, microorganisms, forests, wildlife, minerals, natural gas, petroleum, coal, etc. The list is so long. Natural resources are classified under renewable, flow, and non-renewable groups. Renewable resources are water, plants, animals, etc. Wind, solar radiation, etc., are treated as flow renewable resources as they do not require regeneration. Non-renewable resources are finite and their supply is limited. Coal, petroleum, mineral deposits come under this category.

The availability of natural resources as per the Quran is guaranteed till the end of the divine test programme (Q. 7:24 quoted earlier). That is when the universe will end. The finite nature of the resources and their limited supply are a fact. For instance, the reserve of natural gas at the end of 2005 is estimated to be around 179,831,967 million m^3 [6], that of oil is 1200700 million barrels [5] and that of coal is 909,064 million tons [7]. There are over 450 kinds of minerals provided by Allah on the earth. Millions of biological species are also available. All the biological organisms are not used directly by man. Apart from being food, the bioresources cater to other human needs as well – ranging from ornament to experimental material. Statistics also shows world's annual wood production (timber-equivalent) is 3.4 billion m^3 , meat production is 220 million tons [8] to mention but a few. The earth is thus a giant storehouse of a wide variety of supplies in accordance with human requirements to last a pre-determined period.

Since natural resources are created by Allah for the exclusive use of man, their nature, distribution and availability must correspond to human needs and requirements. And we find this is true. This is discernible from the relative availabilities of resources that are required by human beings in huge amounts (e.g., water) and that required in small quantities (e.g., platinum, gold, etc.). Several mechanisms are also in operation to ensure their availability in sufficient quantities. Renewal through recycling and regeneration is adopted by the Creator to replenish the supply of high-demand resources. Water, plants, animals, etc. come under this category. Besides the sun, Allah has also provided other energy sources to suit other requirements of human beings. Petroleum, coal and nuclear sources for energy generation belong to this list. Studies of the relative availability of the resources vis-à-vis human needs will bring out clearly the natural scenario of the supply-demand equation. The outcome of such studies will certainly make people think and understand the purpose of Allah's creations in the light of the Quran. It will also enable us to discover the truth about the universe and redefine our priorities in life.

The Quranic revelation that everything on Earth is created for man may be called into question on the ground that other species also utilize the resources. We think that natural resources are provided for all the organisms and not exclusively for mankind. It is in a way correct. It is however significant to note that although there are millions of other species inhabiting the earth, the Quran does not mention about them as beneficiaries of the natural resources because they also form resources created for man. This is what we can understand from the verses on natural resources quoted above. Their presence on Earth should be seen that way. These organic beings are renewable resources sustained by Allah. Consequently, we find they require and consume only non-renewable resources for their sustenance. This can be explained as follows. Over two million biological species are catalogued and several million others are supposed to inhabit this planet. Of these, man alone has the natural tendency (i.e., prescribed in the biosoftware) to exploit the non-renewable resources. No other species has. They consume only the renewable resources. This propensity is an instinct, a default character. That is, the microbioprograms of other species stipulate only renewable resources for them. They do not deplete any resource they consume.

Further if we examine the requirements and behaviour of other organisms, it will be evident that they use the renewable resources as such for every purpose. For example they eat whatever nature provides. A bird builds its nest utilizing certain materials available in nature. Likewise every requirement of these species is met directly from what is provided in nature. On the other hand, humans do not utilize the natural produce including food as such like other organisms. To man nature only provides raw materials from which he produces things using appropriate technologies. Human requirements are stipulated in the biosoftware that way. Excepting perhaps some fruits and water, every item of food we eat is processed one. Nature only provides the raw materials inestimably diverse plants and animals. We utilize them to make inconceivably large number of food items with varying tastes. We change the natural form into something different by adopting certain technologies (e.g., cooking, cooling, mixing, etc.) to suit our tastes stipulated in the biosoftware. The range in taste is so large. Only human species has such wide range in sensory perception. This is true not only for food but also for every other material requirement like house building, transport, and so on. This would mean that we need a wide range of technological know-how for utilization of natural resources as prescribed in our biosoftware. This knowledge is science and technology, which Allah provides through biomemetic transmission via germline.

The Quran enumerates so many resources and natural mechanisms (e.g., the sun, rain, wind, etc.) that are so complicated and awe-inspiring to human intellect. A couple of examples are given here. Consider the sun, the source of energy to Earth, and water, another life-sustaining requirement. Let us see how their supplies are maintained.

The sun, which Allah describes as lamp (Q. 71:16 quoted above) is the primary source of energy required for sustaining life on Earth. The temperature at sun's surface is around 5800 K while at the core it may reach as high as 15,600,000 K. The sun is presently composed of 70% hydrogen and 28% helium and the rest 2% is made up of mainly metals. The nuclear fusion going on in the core converts hydrogen into helium and therefore, with time the composition of the sun changes with the depletion of hydrogen. This nuclear reaction generates immense energy. The sun's energy output is 386 billion billion megawatts per second for which 700,000,000 tons of hydrogen are converted to about 695,000,000 tons of helium. The energy is produced as gamma radiation which while travelling from the core towards the surface gets continuously absorbed and re-emitted in longer wavelength region so that by the time it reaches the surface it will be primarily visible light. This is how Allah created the sun to serve as the primary source of energy to sustain life on the earth, the human robot testing centre. However solar energy is not directly accessible to all organisms on the earth. Allah has created plants giving ability to harness the solar energy and convert it to chemical energy

through photosynthetic process. The plants thus serve as the primary energy (food) source in the bioworld. Some animals also serve as food source for other animals. In addition to plants, animals also form food source to man.

The mechanisms involved in worldwide circulation and distribution of water through hydrologic cycle indicates how intricate the divine abioprogram is on a global scale.

وَأَرْسَلْنَا الرِّيَاحَ لَوَاقِحَ فَأَنْزَلْنَا مِنَ السَّمَاءِ مَاءً فَأَسْقَيْنَاكُمُوهُ وَمَا أَنْثُمْ لَهُ بِخَازِنِينَ

15:22 And We send the fecundating winds, then cause the rain to descend from the sky, therewith providing you with water, though you are not the guardians of its stores.

وَاللَّهُ الَّذِي أَرْسَلَ الرِّيَاحَ فَتَثْثِيرُ سَحَابًا فَسُقْنَاهُ إِلَىٰ بَلَدٍ مَيِّتٍ فَأَحْيَيْنَا بِهِ الْأَرْضَ بَعْدَ مَوْتِهَا كَذَٰلِكَ النَّشُورُ 35:9 "It is Allah Who sends forth the winds, so that they raise up the clouds and We drive them to a land that is dead, and revive the earth therewith after its death..."

وَأَنْزَلْنَا مِنَ السَّمَاءِ مَاءً بِقَدَرٍ فَأَسْكَنَّاهُ فِي الْأَرْضِ^حُوَإِنَّا عَلَىٰ ذَهَابٍ بِهِ لَقَادِرُونَ فَأَنْشَأْنَا لَكُمْ بِهِ جَنَّاتٍ مِنْ نَخِيلٍ وَأَعْنَابٍ لَكُمْ فِيهَا فَوَاكِهُ كَثِيرَةٌ وَمِنْهَا تَأْكُلُونَ

23:18-19 And We send down water from the sky according to certain measure and We store it in the earth. And We certainly are able to drain it off. With it We produced for you gardens of date palms and grapes. You have plenty of fruits in them and you are eating them.

أَنْزَلَ مِنَ السَّمَاءِ مَاءً فَسَالَتْ أَوْدِيَةٌ بِقَدَرِ هَا فَاحْتَمَلَ السَّيْلُ زَبَدًا رَابِيًّا ۖ وَمِمَّا يُوقِدُونَ عَلَيْهِ فِي النَّارِ ابْتِغَاءَ حِلْيَة أَوْ مَتَاعٍ زَبَدٌ مِثْلُهُ * كَذَٰلِكَ يَضْرِبُ اللَّهُ الْحَقَّ وَالْبَاطِلَ ۚ فَأَمَّا الزَّبَدُ فَيَذْهَبُ جُفَاءً ۖ وَأَمَّا مَا يَنْفَعُ النَّاسَ فَيَمْكُثُ فِي الْأَرْضِ * كَذَٰلِكَ يَضْرِبُ اللَّهُ الْأَمْثَالَ

13:17 He sent down water from the skies; then it flowed along the valleys according to its measure. Then that stream carried foam (floating) on the surface. There is similar foam (scum) on (metals) which they smelt in the fire to make ornaments or utensils. Thus Allah explains the true and the false. While the foam goes as waste, while that (i.e., water) which is useful to mankind remains in the earth. Thus Allah sets forth parables.

About 70% of the earth's surface is covered with water although we can see only a very small portion of it in circulation. The oceans store 97.5% of the earth's water, land contains 2.4% and the atmosphere holds less than 0.001% as water vapour. Of all the water that is present on the earth, only 2.5% is fresh water; the rest is salty. (In all these proportions, we can see Allah's planning and strategy). Most of the fresh water remains frozen in icecaps, present as soil moisture or inaccessible in deep underground aquifers, leaving less than 1% accessible for use. The annual precipitation (Table 1) for the earth is more than 30 times the atmosphere's total capacity to hold water indicating rapid recycling of water between the earth's surface and atmosphere [14].

The process of hydrologic cycle (Fig. 1) is responsible for circulation and conservation of the earth's water [15, 16, 17]. The hydrologic cycle begins with the evaporation of water from the surface of the ocean. As moist air is lifted it cools and water vapour condenses to form clouds. One would certainly have expected that water would remain as vapour as it goes up and it would continue to go higher and higher in the sky. But nature has the mechanism to prevent it from going up beyond certain altitudes by transforming it into clouds. These clouds literally serve as the mobile overhead reservoirs of water that can be dispatched to any point on the earth through the control of

the wind. Such controlling mechanism has been indicated in the Quranic verses 15:22 and 35:9 given above.

Type/process	Oceans	Land	Atmosphere
Reserves (10^{15} km^3)	1350	33.6	0.013
Precipitation received (10 ¹² km ³ y ⁻¹)	324	99	
Evaporation/ transpiration (10 ¹² km ³ y ⁻¹)	361	62	

Table 1 Earth's annual water budget

Source: http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/ hyd/bdgt.rxml Accessed July 4, 2013

This is indeed a very complex natural phenomenon when we consider the quantum of water involved in the global transport and circulation. Once the water reaches the ground as rain, two processes occur: a) some of the water may evaporate back into the atmosphere and b) some of the water may penetrate the surface and become groundwater. Groundwater either seeps its way into oceans, rivers, and streams, or is released back into the atmosphere through transpiration (via plants). The remaining quantity of water on the earth's surface is the runoff, which empties into lakes, rivers and streams and is carried back to the oceans, where the cycle begins again. The Quranic revelations (Q. 23:18-19; 13:17 quoted above) point to these phenomena. The total quantity of water that is transported to the atmosphere annually is about 423 x 10^9 km³; the same quantity of water content of the planet [18, 19].

An important thing we can infer from the hydrologic cycle is not a single molecule of water on our planet is broken down to its constituent atoms (hydrogen and oxygen) or lost irreversibly. Water being the universal solvent and an essential component of life its total quantity is always conserved through recycling. Although water participates in almost every chemical reaction that is taking place on the earth and combines with a large number of compounds in a variety of ways, none of these reactions leads to its destruction or its irreversible loss. The molecule is recoverable from whatever substance or compound in which it exists. Without this unique characteristic of the water molecule, it would not have been possible to sustain life on this planet. It takes Allah to create it.



Fig. 1. Global water cycle involving precipitation, evaporation, evapotranspiration and runoff Based on: http://www.unep.org/vitalwater/images/03-water-cycle.jpg. Original source given: Shiklomanov, I.A., State Hydrological Institute, St. Petersburg, and UNESCO, Paris, 1999; Max Planck Institute for Meteorology, Hamburg, 1994; Freeze, Allen, John, Cherry. Groundwater, Prentice-Hall, Englewood Cliffs, NJ. 1979.

Note: The width of the arrows indicating processes is approximately proportional to the volume of transported water.

It is for man and man alone Allah has created everything on this planet. And all these resources and natural mechanisms to sustain them are unique to Earth in the entire cosmos. It is impossible to estimate Allah's blessings and bounties given to man on the earth. But still man is ungrateful to Him. To quote the Creator:

وَإِنْ نَعُدُّوا نِعْمَةَ اللَّهِ لَا تُحْصُوهَا⁼ إِنَّ اللَّهَ لَغَفُورٌ رَحِيمٌ 16:18 If you would count up the favours of Allah, never would you be able to number them: for Allah is Oft-Forgiving, Most Merciful.

وَآتَاكُمْ مِنْ كُلِّ مَا سَأَلْتُمُوهُ ۖ وَإِنْ تَعُدُوا نِعْمَتَ اللَّهِ لَا تُحْصُوهَا [] إِنَّ الْإِنْسَانَ لَظَلُومٌ كَفَّارٌ 14:34 And He gives you of all that you ask for. But if you count the favours of Allah, never will you be able to number them. Verily, man is given up to injustice and ingratitude.

By giving us scientific and technological knowledge, God is enabling us to utilize the natural resources. This is one of the important purposes of providing scientific knowledge. Since Allah has provided the natural resources in accordance with the human biosoftware, we should be given knowledge of what resource is to be used for what purpose(s). That is to say we cannot decide the purpose of a resource ourselves. For example we cannot use petroleum as fuel for automobile unless it is meant by God for that purpose. It is according to that, appropriate knowledge is included in Adam's *nafs*. If man is not given the scientific and technological knowledge, the natural resources will remain unutilized. For example, petroleum reserves in the world remained untouched and unutilized till we got the knowledge of its uses and drilling technology about a century ago. This example also reveals that the resources are earmarked for different era so that people can utilize only the resources allotted for their era. This is also controlled and regulated by the scientific and technological knowledge released by Allah to the people. From the advancement of science and technology being made in our times, it is evident that quite a large number of resources are earmarked for the era of Prophet Muhammad, which is the final and presumably the longest in the divine testing programme.

That the diverse resources provided on the earth are in accordance with the purposes and human requirements stipulated in Adam's *nafs* can be made clearer through a thought experiment. There is a lot of excitement over the successful Moon and Mars missions now being conducted. Most of these missions are conducted on the premise that some day man will be able to live on Moon or another planet like Mars. And to support that we also make a lot of hue and cry over the discovery of water on moon, etc. Man will never make home on the moon or Mars for the simple reason that the Creator has not intended it. He made only Earth as the habitat of man (Q. 7:24 quoted above). There is no indication whatsoever in the Ouran that Allah has made any region in the cosmos other than Earth habitable for man. Allah has created only Earth for human habitation. This means we will not find the lunar or Martian environment favourable to us or the resources there useful to us. We will also realize that we will not be able to generate scientific and technological knowledge to utilize the resources there because the knowledge provided in Adam's *nafs* only helps to develop technologies for utilizing the resources provided on the earth and nowhere else. This is also supported by available information about their environment. For instance, lunar environment indicates it is not suitable for human habitation supporting the Quranic revelation. The moon is only onefourth the size of Earth and has less mass. Since mass is less, the gravity it exerts is also considerably less, 83.3% less than Earth's to be precise. A person who weighs 80 kg on Earth will be 13.3 kg on the moon. The weightlessness will affect normal performance of human being on the moon. It will also cause dyslexia, a language-based learning disorder that affects reading, writing and spelling skills. We will find the environment, the resources and everything else on the moon unsuitable to our biosystem. Based on the Quran, it is possible to predict that efforts to migrate to the moon for settlement will fail. The failure will provide another proof of consistency between Allah's purpose of creation stated in the Quran and the ground realities. Thus it can be established scientifically that Earth was created by Allah as human habitat to serve as the human robot testing laboratory with resources lasting a finite period prescribed by Allah.

Another important observation about human species is its population growth. Human population increases with time [9]. Population touched the 6 billion mark in 1995 (Fig. 2). The current population (as of 2015) is more than 7 billion. According to the United Nations, world population reached 7 billion on October 31, 2011 [10]. By contrast, populations of other organisms do not show any increase although they were all there even before the arrival of Adam and Eve on Earth. The current rate of human population growth is about 50 million a year, which the earth sustains as per Allah's program without exceeding the prescribed carrying capacity at any given point of time. Decrease in the population of other species, extinction of species, etc. occur as per the divine program. Man should realize this fact. There is no point in expressing concern over such issues.





Estimation of the total human population so far lived on the earth is an impossible task for several reasons. So many parameters whose accuracy and reliability cannot be verified are involved in that computation with the result the outcome will be no better than a wild guess. The parameters include the span of human habitation of the earth since Adam and Eve, average birth rates over the period, occupancy and global distribution trends, fluctuations in population sizes due to natural catastrophes and destruction of early nations and civilizations described in the Quran, etc. Despite the inaccuracy, guesstimates have been made of the number of people ever born on the earth till date. One such guesstimate shows that as of 2002, about 106,456,367,669 people have lived on the earth since antiquity. The world population of 6,215,000,000 in mid-2002 is 5.8% of this number [11]. Another estimate done in 1999 shows that 96,100,000,000 people have lived on the earth [12]. This figure is about 15 times the previous one. The current global population of just over 7 billion is undoubtedly the highest human population ever lived on Earth at any point of time since Adam. This indicates that the carrying capacity of the present earth with modest resource support is much more than 7 billion. The carrying capacity is the number of human beings that can be optimally supported, given a particular subsistence adaptation [13].

It is in the Muhammadan era, which is the final and perhaps the longest period in the history of human robot testing, Allah is creating the largest human population. Since

the previous century, human population has been growing exponentially (Fig. 1). Needless to say it also increases the demand for resources. Perhaps the most striking phenomenon we witness in this context is the parallel advancement in science and technology to bring more and more natural resources within the reach of mankind. Advancement in science and technology has been planned by Allah in such a way as to provide knowledge about nature and for developing technology to meet every demand of growing human population be it for food, transport, communication, employment (livelihood) or any other sector prescribed in Adam's nafs. Advancement of science and technology commensurate with human population increase we observe today is proof of divine planning, which none can deny. The creation of human beings will go on at stipulated rates until Allah has tested the required number of human robots. That will mark the end of divine testing programme and return of human robots to their Creator.

اللَّهُ يَعْلَمُ مَا تَحْمِلُ كُلُّ أُنْثَىٰ وَمَا تَغِيضُ الْأَرْحَامُ وَمَا تَزْدَادُ ۖ وَكُلُّ شَيْءٍ عِنْدَهُ بِمِقْدَارٍ Allah knows what every female (womb) bears, by how much the wombs fall short 13:8 (in number) or exceed. Every thing is in accordance with a calculated measure (due proportion) with Him.

وَاللَّهُ أَنْبَتَكُمْ مِنَ الْأَرْضِ نَبَاتًا ثُمَّ يُعِدِكُمْ فِيهَا وَيُخْرِ جُكُمْ إِخْرَ اجًا

71:17-18 And Allah produced you from the earth in large numbers. Subsequently He returns you (following death) into it (the earth) and get you out (from it again on the Day of Resurrection).

إِنْ كُلُّ مَنْ فِي السَّمَاوَاتِ وَالْأَرْضِ إِلَّا آتِي الرَّحْمَٰنِ عَبْدًا لَقَدْ أَحْصَاهُمْ وَعَدَّهُمْ عَدًّا وَكُلُّهُمْ آتِيهِ يَوْمَ الْقِيَامَةِ فَرْدًا إِنَّ الَّذِينَ أَمَنُوا وَعَمِلُوا الصَّالِحَاتِ سَيَجْعَلُ لَهُمُ الرَّحْمَٰنُ وُدًّا

19:93-96 Everyone in the skies and the earth is to come to the Most Merciful (i.e., Allah) as a servant. He (Allah) has an account of them and has numbered them exactly. And everyone of them will come to Him singly on the Day of Judgment. To those who believed and did good deeds, the Most Merciful (i.e., Allah) will bring affectionate relationship.

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