

THE SECRETS OF SOIL

LIFE & RESURRECTION

ROLEARNO

TABLE OF CONTENTS

1. SOIL; AN ESSENTIAL ELEMENT	3
2. SOURCES OF ESSENTIAL ELEMENT	4
3. HUMANS CREATED FROM SOIL	8
4. RESURRECTION	9
5. COMPARING PLANTS AND HUMANS	10
6. RESURRECTION; THE PROCESS	12
SENDING OF WINDS & CLOUD ACCUMALATION	13
REVIVING A DEAD LAND	14
7. TAYAMMUM; DRY ABOLUTION	16
8. SOIL: THE PRECIOUS ASSET	17
9. 2015, INTERNATIONAL YEAR OF SOILS	19
10. A PIONEER OF ENVOIRNMENTALISM	20

SOIL AN ESSENTIAL ELEMENT

All organisms must take in matter from their environment in order to survive. There are **92** naturally occurring elements on Earth. Only a minority of them is needed by living things.

Humans require about **21** different elements to be healthy. Almost all of the mass of our bodies comes from just **6** of those elements (carbon, hydrogen, oxygen, nitrogen, phosphorus, and calcium). These are the elements used to construct the carbohydrates, nucleic acids, proteins, and other molecules that make up our cells and carry out their chemistry.

The plants too must carry out thousands of different chemical reactions, many of which are similar to those of humans. Scientists have identified 17 elements that are described as *essential elements*, which are required by plants and humans to complete their life cycles.

Warm-up: What do humans consume from the environment for survival?



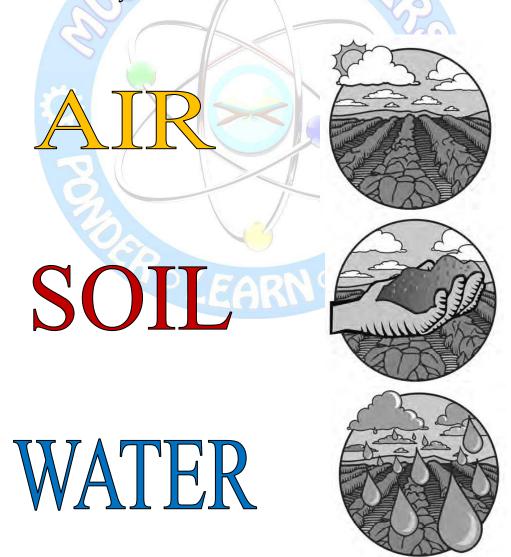
Energy & chemical building blocks of cells

SOURSES OF ESSENTIAL ELEMENTS

The *atmosphere* of our world is a mixture of nitrogen, oxygen, and trace gases that include water vapor.

The *soil* consists of weathered rocks and decomposed organic material from dead plants, animals, and bacteria.

The *water*, which covers the majority of the earth's surface, circulates through the crust, oceans, and atmosphere in what is known as the "water cycle."



Do plants need food? From where do plants obtain nutrients? What is nutrient deficiency?				
	Do plants 1	eed food?	EXPLOR	
What is nutrient deficiency?	From whe	e do plants obtain nu	itrients?	
	What is nu	rient deficiency?		

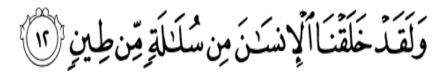
Color all the essential nutrients needed for plants and humans.

81	Helium 4.0026	10 Neon 20.179	Ar Argon 39,948	36 Krypton 83.80	54 Xenon xenon 131.29	86 Radon (222)		71 LU Lutetium 174.96	103 Lr Lawrencium (260)
_	17	9 Flourine 18,998	CI Chlorine 35,453	35 Bromine 79.904	53 	84 At Astatine (210)		70 Yb vtterbium 173.04	NO Nobelium (259)
	16	0 0xygen 15,9994	Sulfur 32.06	34 Selenium 78.96	52 Te Tellurium 127.60	84 P0 Potonium (209)		69 Tm Thullum 168,934	Md Mendelevium (258)
	15	7 Nitrogen 14.0067	15 Phosphorus 30.973	AS Arsenic 74.92	Sb Antimony 121.75	83 Bismuth 208,980		68 Erbium 167.26	Fm Fermium (257)
	14	6 Carbon 12.0111	Silicon 28.0855	32 Ge Germanium 72.59	50 Sn In 118.71	82 Pb Lead 207.2		67 H0 Holmium 164,930	99 Ensteinium (252)
	13	5 Boron 10.81	13 Aluminum 26.9815	31 Ga 69.72	49 Indium	81 ————————————————————————————————————		Dy Dysprosium 162.50	98 Cf californium (251)
	,		12	30 Zn Zinc 65.39	Cd Cadmium 112.41	Hg Mercury 200.59		65 Tb Terbium 158,925	97 BK Berkelium (247)
			11	29 Cu Copper 63.546	Ag Silver 107.868	79 Au 60ld 196.967		64 Gd Gadolinium 157.25	Om Curium (247)
			10	28 Nickel 58.69	Pd Palkadium 106.42	78 Platinum 195.08		63 Eu Europium 151.96	Am Americium (243)
			6	27 C0 Cobalt 58.933	A5 Rhodium 102.906	77	109	62 Smarium 150.36	Pu Plutonium (244)
		- Atomic number - Symbol - Name - Atomic mass	∞	26 Fe Iron 55.847	Ruthenium 101.07	76 0S Osmium 190.2	108	61 Pm Promethium (145)	Np Neptunium (244)
			_	25 Wn Manganese 54.938	43 Technetium (98)	75 Renamon 186.207	107	Nd Neodymium	92 Uranium 238.029
		Sillion 28.0855	و	24 Cromium 51.996	42 MO Molybdenum 95.94	74 W Tungsten 183.85	106	59 Praseodymiun	Protactinium 231.036
			5	23 V Vandium 50.9415	ND Niobium 92.906	73 Tantalum 180.948	105	Cerium 140.12	Phorium 232.038
			4	22 Ti Titanium 47.88	40 Zrconium 91.224	72 Hf Hafnium 178,49	(261)		
			æ	Scandium 84.955	39 Yttrium 88.905	57 Lanthanum 138.906	AC Actinium (227.028)		
	2	Beryllium 9.012	Mg Magnesium 24.305	20 Calcium 40.08	Srontium 87.62	56 Barum 137.3	Radium (226.0)		
	Hydrogen	3 Lithium 6.941	11 Na Sodium 22.98977	19 K Potassium 39.098	Rb Rubidium 85.467	55 Csium 132.905	87 Francium (223)		

Fill in the following table by mentioning the right type of sources of each of the nutrients.

Essential Nutrient	Air	Water	Soil
Boron (B)			
Calcium (Ca)			
Carbon (C)	MILE	1/400	
Chlorine (Cl)		- Car	
Copper (Cu)			(6)
Hydrogen (H)			(db)
Iron (Fe)			
Magnesium (Mg)			EO ;
Manganese (Mn)			
Molybdenum (Mo)			18
Nickel (Ni)			
Nitrogen (N)	V		
Oxygen (0)	OZEA	SNOG	
Phosphorous (P)	450	MILL	
Potassium (K)			
Sulfur (S)			
Zinc (Zn)			

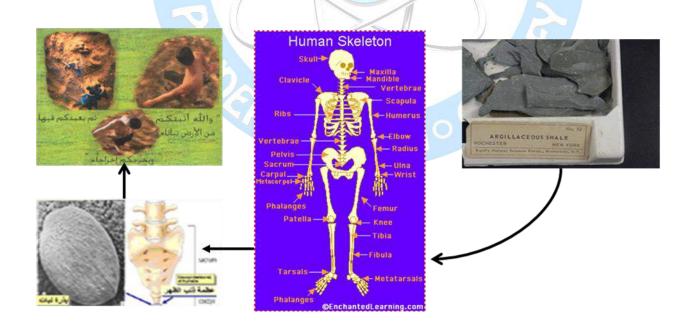
HUMANS: CREATED FROM SOIL



"We created man from an extract of clay." (Al-Mu'minun:12)

Prophet (PBUH) said, "Allah has created Adam from a handful from all earth, so the sons of Adam came similar to earth, some of them are red, white, black and in between; evil, good and in between".

HUMANS; A JOURNEY FROM SOIL TO SOIL



RESURRECTION

RESURRECTION IN QURAN

وَٱلَّذِى نَزَّلَ مِنَ ٱلسَّمَآءِ مَآءً بِقَدَرِ فَأَنشَرْنَا بِهِ عَلَدَةً مَّيْتًا كَذَالِكَ تُخْرَجُونَ اللهُ مَنْ السَّمَآءِ مَآءً بِقَدَرِ فَأَنشَرْنَا بِهِ عَلَدَةً مَّيْتًا كَذَالِكَ تَخْرَجُونَ اللهُ ال

"Allah (God) Almighty who sends down from the sky water in predetermined quantities to revive a dead land and as such you (humans) will be resurrected." (Al-Zykhruf: 11)

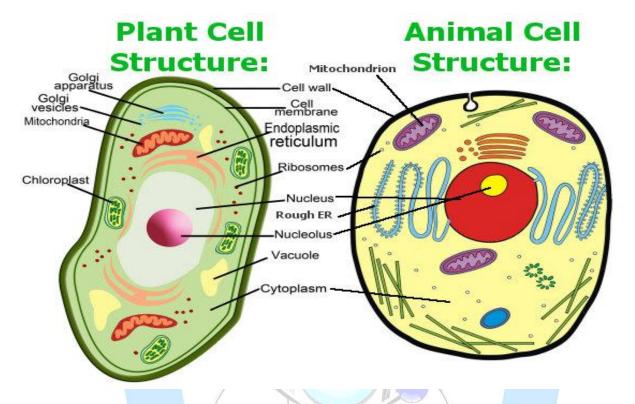


"And Allah (God) Almighty has brought you forth from the earth exactly like plants. Then He will return you to the earth and bring you forth from it on the Day of Judgment." (Nuh: 17-18)

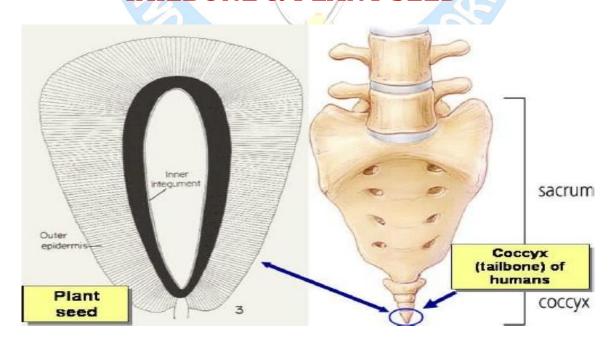
RESURRECTION IN HADITH

"There is a piece of bone the earth will not devour, from which the human is assembled on the Day of Judgment. The companions of the Prophet of Allah (God) Almighty asked what piece of bone is It? The Prophet replied: It is the tail bone. Then the Prophet of Allah (God) Almighty said that Allah (God) Almighty sends down rain and people will grow exactly like plants grow from the earth"

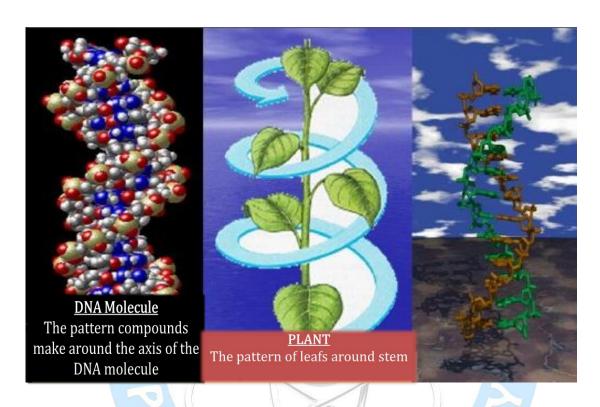
COMPARING PLANTS & HUMANS



SIMILARITIES BETWEEN THE HUMAN TAILBONE & PLANT SEED



SIMILARITY BETWEEN THE PATTERNS OF MOLECULES WITHIN HUMAN DNA & TH LEAFS GROWING ON THE STEM OF THE PLANTS



CAN YOU COMPARE AND CONTRAST HUMANS AND PLANTS?

HUMANS	PLANTS
	SANIV

RESURRECTION: THE PROCESS

وَٱللَّهُ ٱلَّذِى ٓ أَرْسَلَ ٱلرِّيْحَ فَتُثِيرُ سَعَابًا فَسُقَنَهُ إِلَى بَلَدِ مَيِّتِ فَأَحْيَنَا بِهِ الْكَرْضَ بَعْدَ مَوْتِهَا كَذَلِكَ ٱلنَّشُورُ الْ

"And Allah (God) Almighty who sends the wind which causes turbulence in the clouds and then Allah (God) Almighty drives the clouds to a dead land and revives the earth after its death utilizing the clouds and as such will be the resurrection." (Faatir: 9)

STAGES OF RESURRECTION

SENDING OF WINDS

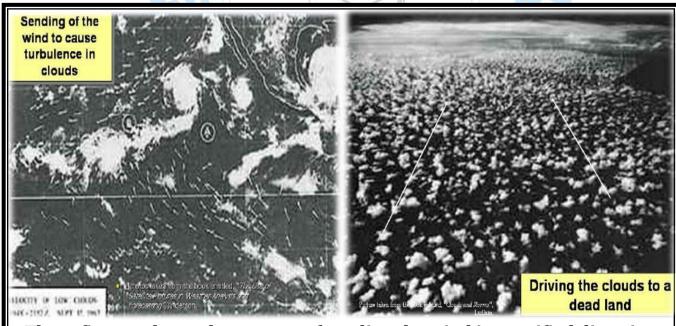
TURBULANCE & CLOUD ACCUMALATION

REVIVNG DEAD LAND

SENDING OF WINDS & CLOUD ACCUMULATION

أَلَرْ تَرَأَنَّ ٱللَّهَ يُزْجِى سَحَابًا ثُمَّ يُؤَلِّفُ بَيْنَهُ، ثُمَّ يَجْعَلُهُ, زُكَامًا فَتَرَى الْوَدْقَ يَخُرُجُ مِنْ خِلَالِهِ وَيُنَزِّلُ مِنَ السَّمَآءِ مِن جِبَالٍ فِيهَا مِنْ بَرَدٍ فَيُصِيبُ بِهِ عَن يَشَآهُ وَيَصِّرِفُهُ عَن مَّن يَشَآءً يَكَادُ سَنَا بَرُقِهِ عِيَدُهُ ثَنَ مِن اللَّهُ عَن مَن يَشَآءً يَكَادُ سَنَا بَرُقِهِ عِيدُهُ ثَن مَن يَشَآءً يَكَادُ سَنَا بَرُقِهِ عِيدُهُ ثَنَ مَن يَشَآءً عَن مَّن يَشَآءً عَن مَن يَشَآءً يَكَادُ سَنَا بَرُقِهِ عِيدُهُ فَهُ وَيَصَرِفُهُ وَعَن مَن يَشَآءً عَن مَن يَشَآءً مِن جَالِهِ فِيهِ الْمُنْ مِنْ اللّهُ مَنْ اللّهُ مَن يَشَاءً عَن مَن يَشَآءً عَن مَن يَشَاءً عَن مَن يَشَآءً عَن مَن يَشَآءً عَن مَن يَشَآءً مِن اللّهُ مَن يَشَاءً عَن مَن يَشَآءً عَن مَن يَشَآءً عَن مَن يَشَاءً عَن مَن يَشَآءً عَن مَن يَشَاءً عَن مَن يَسَاءً عَن مَن يَشَاءً عَن مَن يَ سَمَا عَنْ مَن يَشَاءً عَن مَن يَشَاءً عَنْ مَن يَصُلُولُ مُن يَشَاءً عَنْ مَن يَشَاءً عَن مَن يَسَاءً عَنْ مَن يَسَاءً عَنْ مَن يَشَاءً عَن مَن يَشَاءً عَن مَن يَسْءَ عَنْ مَن يَسَاءً عَنْ مَن يَسْءَ عَنْ مَنْ يَسْءَ عَنْ مَنْ يَسْءَا عَنْ مَن يَشَاءً عَنْ مَنْ يَسْءَ عَنْ مَنْ يَسْءَ عَنْ مَنْ يَسْءَ عَنْ مَنْ عَلَا عُنْ مَنْ يَسْءَ عَنْ مُن يَسْءَ عَنْ مِنْ عَلْمُ عَلَى مُنْ يَسْءَ عَنْ مَنْ عَلَى مُنْ عَلَى مُن عَلْمُ عَلَى مُنْ عَلَا عُمْ عَنْ عَلَى مُنْ عَلَى اللّهُ عَلَى مُن عَلَى عَلَى مِنْ عَلْمُ عَلَى مُنْ عَلَى مُنْ عَلَى عَلَى عَلَى مُن عَلَى عَلَى مُنْ عَلَى عَلَى مُنْ عَلَيْكُمُ وَالْمُ عَلَى مُنْ عَلَى مُنْ عَلَى مُنْ عَلَى مُنْ عَلَى مُنْ عَلَى مُنْ عَلَى مُن عَلَى مُنْ عَلَى مُن عَلَى مُنْ عَلَى مُن عَلَى مُنْ عَلَى مُن عَلَى مُنْ عَلَى مُن عَلَ

"Do you not see that Allah drives clouds, then He brings them together, then He makes them into a mass, and you see the rain emerge from within it. And He sends down from the sky, mountains [of clouds] within which is hail, and He strikes with it whom He wills and averts it from whom He wills. The flash of its lightening almost takes away the eyesight." (An-Noor: 43)



These figures shows the process of sending the wind in specified direction to cause turbulence in the clouds and to gather small cloud fragments to become an assembled cloud

REVIVING A DEAD LAND



REVIVING A DEAD LAND NEEDS;

- 1. WATER
- 2. SOIL
- 3. ENERGY
- 4. PLANT SEED (TAILBONE)



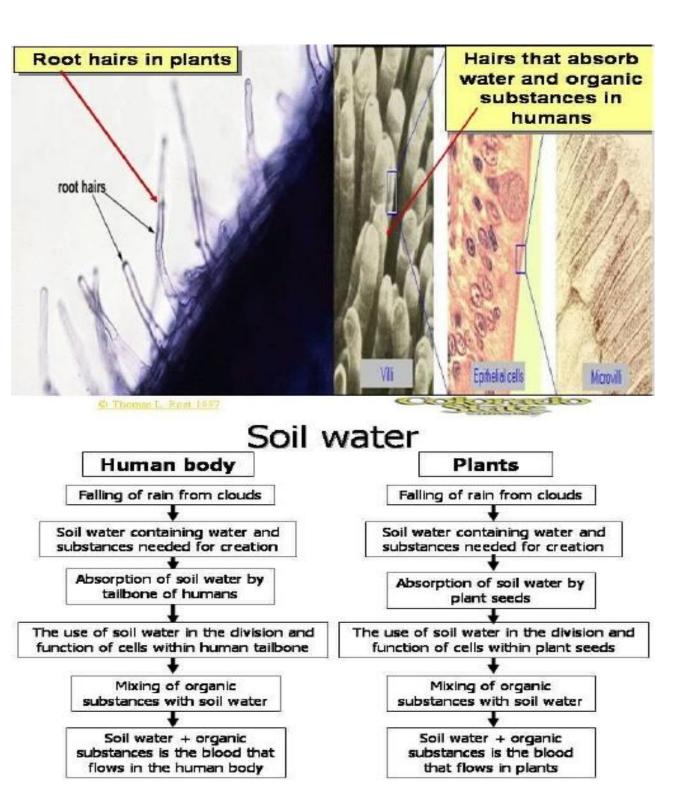
WATER is best medium to transport the basic elements needed for creation.



PLANT SEED today & TAIL BONE OF HUMANS on the day of judgement is the orign of life.



SOIL is the source of all essential nutrients required for life.



The combination of water and atom needed for creation can be termed as soil water. Root hairs on wall of plant seeds absorb soil water same is the case with human body. This figure shows perfect match between hair found in plants and human body.

TAYAMMUM, DRY ABOLUTION

Tayammum is a substitute of *gusal* and *wadu* in situations when there is no water available or the use of water is harmful. It's a symbolic way of getting spiritual and psychological cleanliness from clean soil. It brings one closer to ALLAH and enables him to feel ready for worshiping the ALLAH (S.W.T).



With the finger wide spread hit the clean soil with palms.



Blow extra dust from hands and wipe the face with palms.



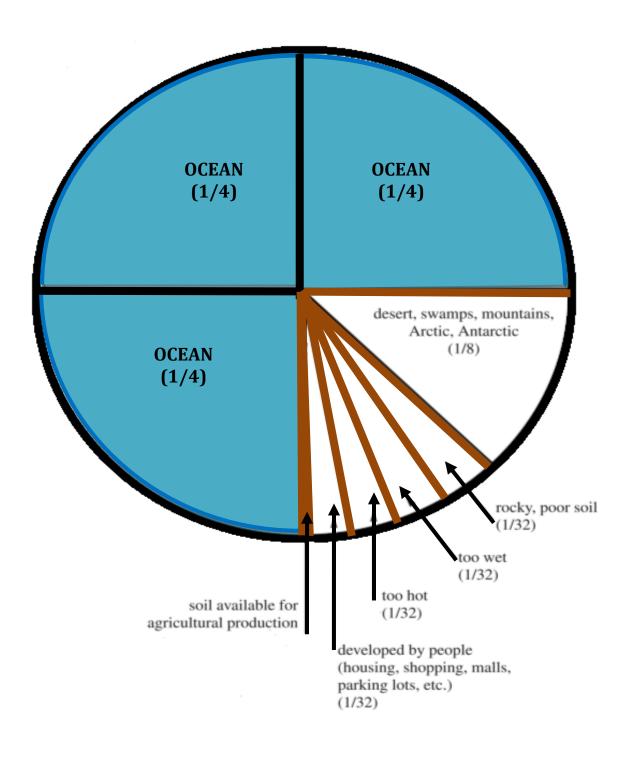
Wipe the back of right hand with the left and then the back of left hand with the right hand.

Narrated Said bin 'Abdur Rahman bin Abza: (on the authority of his father who said) 'Ammar said so (the above Statement).

And Shu'ba stroked lightly the earth with his hands and brought them close to his mouth (blew off the dust) and passed them over his face and then the backs of his hands. 'Ammar said, "Ablution is sufficient for a Muslim if water is not available."

"Whenever a person would complain from an ulcer (or canker), or a wound, the Messenger of Allah would put his finger in the soil (on the ground after inserting it in his mouth, then raises it) saying; In the name of Allah, with the soil of our earth has got a moisture with the saliva of some of us, let our sick be cured, with our Lord's permission".

SOIL: THE PRECIOUS ASSET



What is the example that Qur'an gi	ves to explain resurrection?
Write down the three stages?	
What is soil water?	
What are the requirements	Write down steps of tayammun
of reviving a dead land?	
(P)	
	EARNO
How can you help saving soil?	

The purpose of the IYS is to raise awareness worldwide of the importance of soils for food security, agriculture as well as in mitigation of climate change, poverty alleviation, and sustainable development. Muslim Explorers is also playing role in giving awareness to students about soil.





Did you SLEEP on soil last night? Yes you did about one third of planet earth is covered with soil. We build our homes, schools, stores and restaurant on soils. We also use lumber from trees grown in soil and bricks baked from soil to build our homes!



Have you WORN any soil lately? A lot of our clothes have cotton in them and its grown in soil and maybe you have a coat made from wool and wool comes from sheep, and sheep eats grass that grows in soil. Do you have a leather belt, shoes or bag? It comes from the cattle that eat grass.



Have you EATEN any soil today? Cereal, vegetables and Fruits are grown in soil. Plants get nutrients and minerals from soil and we get nutrients to stay healthy from plants. Almost everything we eat is raised either in soil or on soil



Did you play with any soil today? The fields, forests and ground around your home are all comes from soil too. The wildlife living in these ecosystems needs soil just as much as you do!

SOIL IS A GIFT TO US BY THE ALMIGHTY ALLAH! It is the responsibility of each and every being to use the soil wisely to insure the future. The earth's surface used for food production is very little as compared to growing populations. Also a lot of soil is lost due to soil erosion every year. Planting trees can help stop soil erosion.



A PIONEER OF ENVIRONMENTALISM

"There is none amongst the believers who plants a tree, or sows a seed, and then a bird, or a person, or an animal eats thereof, but it is regarded as having given a charitable gift [for which there is great recompense]." [Al-Bukhari, III: 513]

PRINCIPALS FOR USE OF NATURAL RESOURCES

TAWHEED

"To God belongs all that is in the heavens and in the earth, for God encompasses everything. " (4:126)

KHILAFA (Stewardship)

"And He is who has made you successors in the land and raised some of you above others by (various) grades, that He might try you by what He has given you." (6:165)

AMANA (Trust)

"O Children of Adam!
Wear your beautiful
apparel at every time and
place of prayer; eat and
drink, but waste not by
excess, for Allah does not
love those who waste."
(7:31)



CONSERVATION OF NATURAL RESOURCES BY PROPHET MUHAMMAD (S.A.W)

- LAND: "Whoever brings dead land to life, that is, cultivates wasteland, for him is a reward therein."
- WATER: "Do not waste (water), do not use more water than you need it."

"Rottenness (decay/corruption) has appeared on land and sea because of what the hands of men have earned, that (Allah) may give them a taste of some of their deeds, in order that they may turn back (from evil)." (30:41)