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ಕಾಲ

ಹಿಂದಿನ ಕಾಲದಲಿ ಮಕ್ಕಳ ಋಷಿ - ಪ್ರಾಣಿಗಳ ನೋಟ, ಹಕ್ಕಿಗಳ ಚಿಲಿಪಿಲಿ
ಇಂದಿನ ಕಾಲದಲಿ ಅವರಿಗೆ ಬೇಕು Facebook, twitter ಗಳ ಗಲಬಲಿ

ಅಂದು ಈಜಿ, ನಲಿದು ತೇಲಾಡುತ್ತಿದ್ದರು ನದಿ ಕೆರೆಗಳ ಜಲದಲಿ
ಇಂದು ಮುಳುಗಿ ಸಿಲುಕಿದ್ದಾರೆ ಮೊಬೈಲು - ಅಂತರ್ಜಾಲದಲಿ

ಅಂದು ನಡೆದಾಟ-ಪರಸ್ಪರ ಭೇಟಿ , ಕುಶಲೋಪರಿ - ಮುಖಾಮುಖಿ
ಇಂದು ಅಂತರ್ಮುಖಿ ಅಥವಾ webcamನಲ್ಲೇ ಸದಾಸುಖಿ

ಬಿಟ್ಟು- ಸೂರ್ಯನ ಬೆಳಕು ಚಂದ್ರನ ತಂಪಿನ ಧಳಕು
ಬೇಕಿಲ್ಲ ಜನರಿಗೆ Mall- multiplex ನ ಕುಲಕು

ಬಿಟ್ಟು- ಗಿಡಮರಗಳ ನೆರಳಿನ, ನದಿಬದಿಯ ಮರಳಿನ ತಂಪು
ಈಗ ಎ.ಸಿ. ಕೂಮಿನ ಧಳಿಯಲ್ಲಿ ಕರಗಿ ಹೋಗುವ ಬದುಕು

ಬೆಟ್ಟ ಗುಡ್ಡವನೇರಿ ಕಾಡು ಹಣ್ಣಿನ ತಂದು ಸುಖಿಸುವ ದಿನ ಕಳೆಯಿತು
ಪ್ಯಾಕೆಟ್ಟು ತಂದಿ, Junk food ಗಳು ಹಸಿದವರ ಬಟ್ಟಲಲಿ ಕುಣಿಯಿತು

ಗೆಳೆಯ-ಗೆಳತೆಯೇ ಯೋಚಿಸಿ - ಏನು ಹಿತ? ಯಾವುದು ದಿಟ?
ನಮ್ಮ ಬದುಕು ಬೆಳಗಿಸಿಕೊಳ್ಳೋಣ- ಅರಿತು ಪರಿಸರದ ಪಾಠ !

- ದೀಕ್ಷಾ ಎಸ್. , I BS 'B'

Harmful Effects of Lead

Karthikeya II Sci. 'C'

Lead is a main-group element in the carbon family with the symbol Pb and atomic number 82. Lead is a soft, malleable metal. It is also one of the heavy metals. Lead is used in building construction, lead-acid batteries and shots, weights, as part of solders and as a radiation shield.

Lead is a poisonous metal that can damage the nervous system (especially in young children) and cause blood and brain disorders. Lead poisoning typically results from ingestion of food or water contaminated with lead. Long-term exposure to lead or its salt can cause abdominal pains. The effects of lead are the same whether it enters the body through breathing or swallowing. Lead can affect almost every organ and system in the body. The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of adults can result in weakness in fingers, wrists, or ankles. It also causes small increases in blood pressure, particularly in middle-aged and older people and can cause anemia. Exposure to high lead levels can severely damage the brain and kidneys in adults or children and ultimately cause death.

In most cases, lead poisoning is preventable; the way to prevent it is to prevent exposure to lead. Care should be taken at every level right from the community level to the national level so that the harmful effects due to lead be minimized.

Tiger Census 2011, A Straight Growth of 295 Tigers in National Parks of India

Collected by : Rajalaxmi Bhat, II Sci'b'

The second All India tiger population counting study which was carried in 39 tiger reserves across as Jim Corbett National Park, Ranthambore National Park, Sundarbans National Park and other national park, Country has shown that there has been a growth in the number of tigers in India and the number is astounding 295. The previous population of tigers in India was 1411 and now it is 1706.

The Tiger Conference hosted by the Environment and Forest department minister Mr. Jairam Ramesh released this current census of tigers 2011 which says

- Ø Population of tigers increased to 1706 from 1411
- Ø Shivalik-Gangetic plain: 353 which is a raise of 56
- Ø In the Eastern as also Central Ghats as also eastern Ghats as 601
- Ø in the western ghats the number has increased by 132 and the present number is 534
- Ø the Brahmaputra flood plain areas have 148 and previously they had only 100
- Ø in Sunderbans it is 70

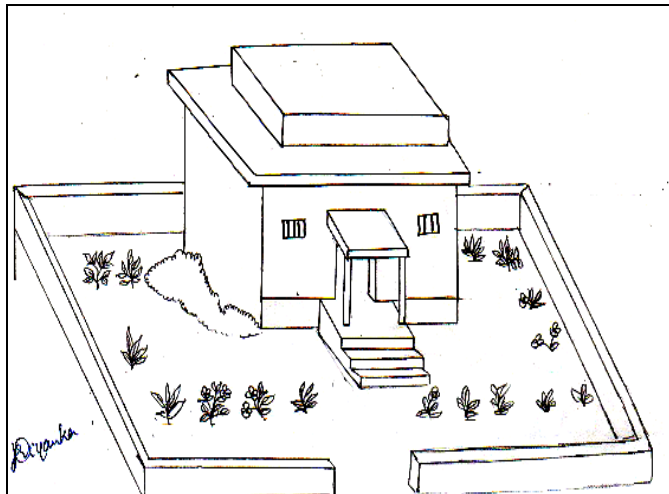
This highlight of the census makes a clear the growth as also provides an idea of the future plans of the government on this. The future plans goes like that St. Petersburg meet last year in Russia will be followed again with the discussions on challenges faced on the Global Tiger Recovery Program which is planned to double the tiger population of India by an estimated time of 2022.

This is being fully organized in co-operation of Global Tiger Forum or GTF, which is an inter governmental body that also has membership of the national and international NGOS along with the World Bank's Global Tiger initiative or GTI

Around a decade ago India was the home of around 3, 000 tigers so we are going to take a long time to achieve that.



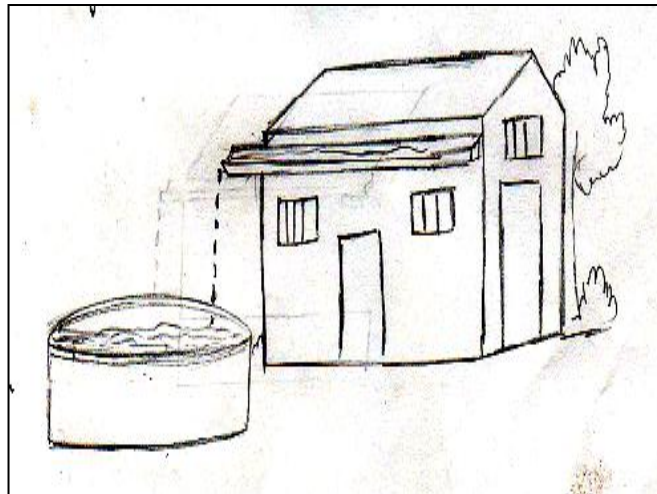
REAL WEALTH – IS THE NATURE AROUND YOU- THE PLANTS AND THE TREES



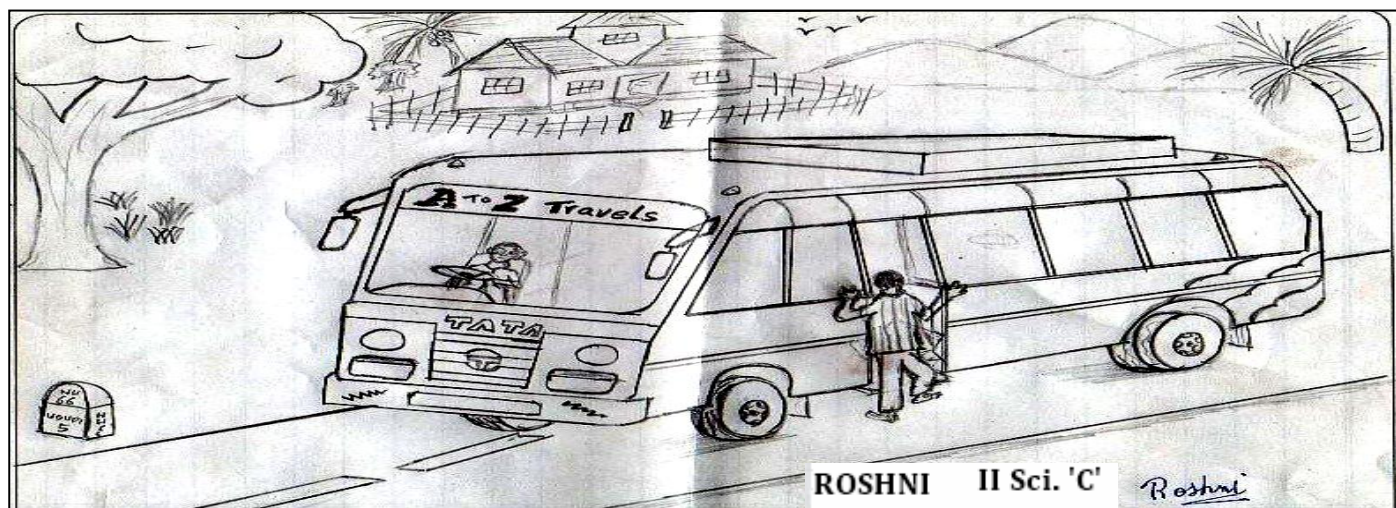
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REAL WEALTH IS – THE RAIN WATER HARVESTED - GROUND WATER LEVEL IMPROVED.



REAL WEALTH IS - USE OF PUBLIC TRANSPORT- POLLUTION REDUCED, FUEL RESOURCE SAVED



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Roshni

ECO CLICKS CONTEST :

Photos were judged by Mr.Derrick, Env. Executive, Manipal University, on the basis of the following criteria:

- 1) Originality & Creativity
- 2) Composition
- 3) Technical Quality
- 4) Wow Factor
- 5) Overall Impact

- First Place - Christon D'Souza, I Sci. 'C'
- Second Place - Priyanka Shetty , I Sci. 'B'
- Third Place - Monisha Annapur , II BS'B'
- Best Impact Photo - Nitish Nayak , I BS'B'

OZONE DAY COLLAGE CONTEST - WINNERS :

1. NAGASHREE AND SUSHMITHA , IBS'A'
2. KAUSHIK R. AND AKSHAY L. . ISci. 'C'

OLD STUDENTS' CORNER.....

7 Billion: The ImPACT

- **NAKUL KAMATH** (BATCH : 2009-2011, PRESENTLY STUDYING AT MIT, MANIPAL)

Baby number 7 billion entered the earth on October 31, 2011. Yes, you are 1 among 7,00,00,00,000 people living on the only known planet that sustains life. The consequences of that massive figure are just as massive. Population growth has impacted everything, from poverty to world health to climate change.

An indicator of the human impact on the environment is the IPAT equation developed by Ehrlich and Holdren.

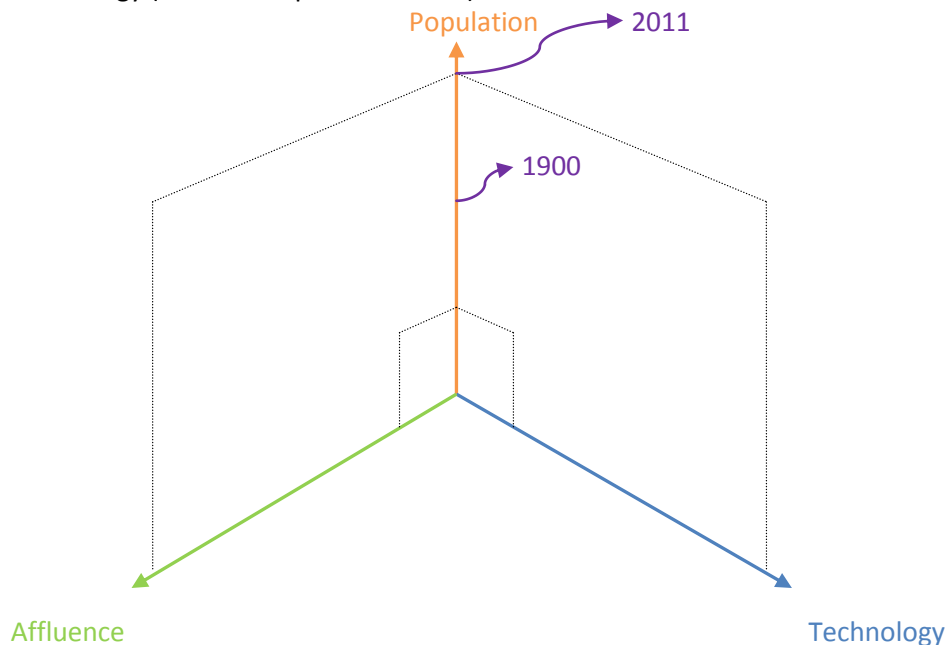
$$I = P \times A \times T,$$

Where I – Human Impact on the Environment

P – Global Population

A – Affluence (GDP is a good measure of richness)

T – Technology (Number of patents issued)



Let us have a look at what the impact was in 1900, and what the existing situation is.

1900 : World population - 1.8 billion, GDP - \$ 2 trillion, Patents - 1,41,000

2011 : World population - 7.0 billion, GDP - \$ 55 trillion, Patents - 19,00,000

A quick calculation using the IPAT equation leads us to the fact that we are causing 1441 times the environmental impact in 2011 than we did during the start of the 20th century!

“The earth provides enough to satisfy every person’s need, but not every person’s greed.”

- Mahatma Gandhi

The world’s richest 0.5 billion people (which accounts for 7% of the world’s population) account for more than 50% of the world’s carbon dioxide emissions. An average person in the USA emits as much carbon dioxide as 20 Indians. A huge trendsetter in the battle against climate change can be in choosing our way of lifestyle. Sticking to the Indian way of life and withholding from the temptations of the Western way of life can be a defining factor in striking the balance.

To meet the needs of the growing population and still managing to maintain the delicate balance of nature is the biggest challenge of the century. Every action that the 7 billion of us take is responsible for increasing or decreasing the Impact. Every action that we take to save the environment, is ultimately, an action to save ourself. Do your bit, act wisely.

ECO CROSSWORD ANSWERS (OCTOBER ISSUE)

ACROSS : 2) CRICKET 4) CIRRUS 7) YAMUNA 8) PENGUINS 9) WALRUS 10) CANADA

DOWN : 1) HAILSTONES 3) ARAL 5) VANILLA 6) TULSI

WINNERS : KAUSHIK R. ISci. ‘C’ , NITHISH NAYAK IBS‘B’

HYDROGEN

- VISHWAS SHETTY , IISci. 'C'

What is hydrogen?

Hydrogen is the simplest and most abundant element in the universe—it is number 1 on the [periodic table of elements](#). Very little hydrogen gas is present in Earth's atmosphere. Hydrogen is locked up in enormous quantities in water (H₂O), hydrocarbons (such as methane, CH₄), and other organic matter. Efficiently producing hydrogen from these compounds is one of the challenges of using hydrogen as a fuel.

Hydrogen as an Alternative Fuel

The interest in hydrogen as an alternative transportation fuel stems from its clean-burning qualities, its potential for domestic production, and the [fuel cell vehicle's](#) potential for high efficiency (two to three times more efficient than gasoline vehicles). Hydrogen is considered an alternative fuel under the [Energy Policy Act of 1992](#). The energy in 2.2 lb (1 kg) of hydrogen gas is about the same as the energy in 1 gallon of gasoline.

Hydrogen Production

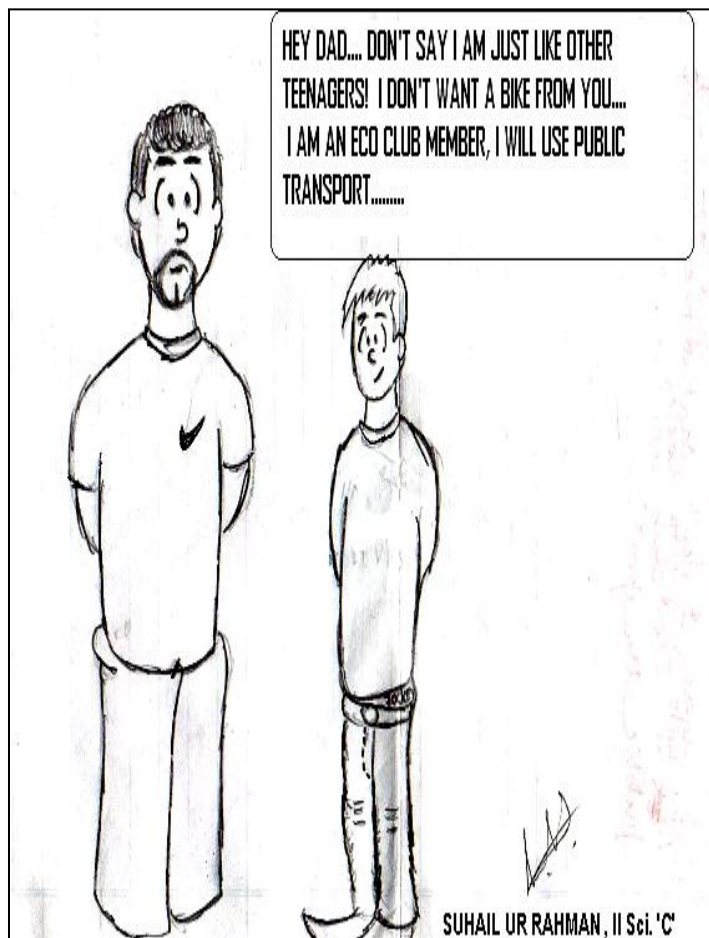
Hydrogen can be produced from diverse, domestic resources including fossil fuels, nuclear energy, biomass, and other renewable energy technologies. The environmental impact and energy efficiency of hydrogen depends greatly on how it is produced. The following are some ways to produce hydrogen.

- Natural gas reforming—"synthesis gas" is created by reacting natural gas with high-temperature steam or by partial oxidation. The synthesis gas is then reacted with water to produce hydrogen
- Renewable electrolysis—an electric current generated by renewable energy technologies, such as wind or solar, splits water into hydrogen and oxygen
- Gasification—Coal or biomass is converted into gaseous components and then into synthesis gas, which is reacted with steam to produce hydrogen
- Renewable liquid reforming—renewable liquid fuels such as ethanol are reacted with high-temperature steam to produce hydrogen near the point of end-use
- Nuclear high-temperature electrolysis—heat from a nuclear reactor is used to improve the efficiency of water electrolysis to produce hydrogen
- High-temperature thermochemical water-splitting—high temperatures generated by solar concentrators or nuclear reactors drive chemical reactions that split water to produce hydrogen
- Photobiological—microbes such as green algae consume water in the presence of sunlight, producing hydrogen as a byproduct
- Photoelectrochemical—photoelectrochemical systems produce hydrogen from water using special semiconductors and energy from sunlight

Hydrogen Benefits

Hydrogen can be produced from diverse domestic resources, with the potential for near-zero greenhouse gas emissions. Once produced, it generates power without exhaust emissions in fuel cells. It holds promise for economic growth in both the stationary and transportation energy sectors. No matter how efficient conventional vehicles become, some of the gasoline and diesel needed to fuel them will need to be imported. Hydrogen can be [produced](#) domestically from resources such as natural gas, coal, solar energy, wind, biomass, and nuclear energy. Used to power highly efficient [fuel cell vehicles](#), hydrogen holds the promise of an end to the nation's "addiction to oil." The potential market for hydrogen vehicles is enormous, but the opportunities don't stop there. Hydrogen and fuel cells can power stationary applications such as backup generators, and grid electricity production. They can also compensate for the intermittency of renewable energy production. For example, wind generators can produce hydrogen when winds are high and electricity demand is low. When the wind slackens or electricity demand peaks, fuel cells consume the stored hydrogen to provide grid electricity.

The above outline contains just some of the many ways to produce hydrogen fuel and how it can be used in everyday life. Scientists and researchers are working around the clock to come up with new and improved ways to produce H₂ for cars, homes and business. Breakthrough, disruptive technology is just around the corner for producing hydrogen fuel abundantly, cheaply and cleanly so that we all may breathe a little easier.



NATURE MY MOTHER...

- AMOL DATWARDHAN, IBS'A'

We think of nature as our mother,
And our mother is dying

Why can't we help our mother cure?

When she has not much support..!

Our mother, in pain is crying loud,

But why can't we hear her cry?

Though we can make a deaf hear

Why can't we try?

She cared for all and nourished our life

Why can't we even let her breathe?

We call her mother all the time,

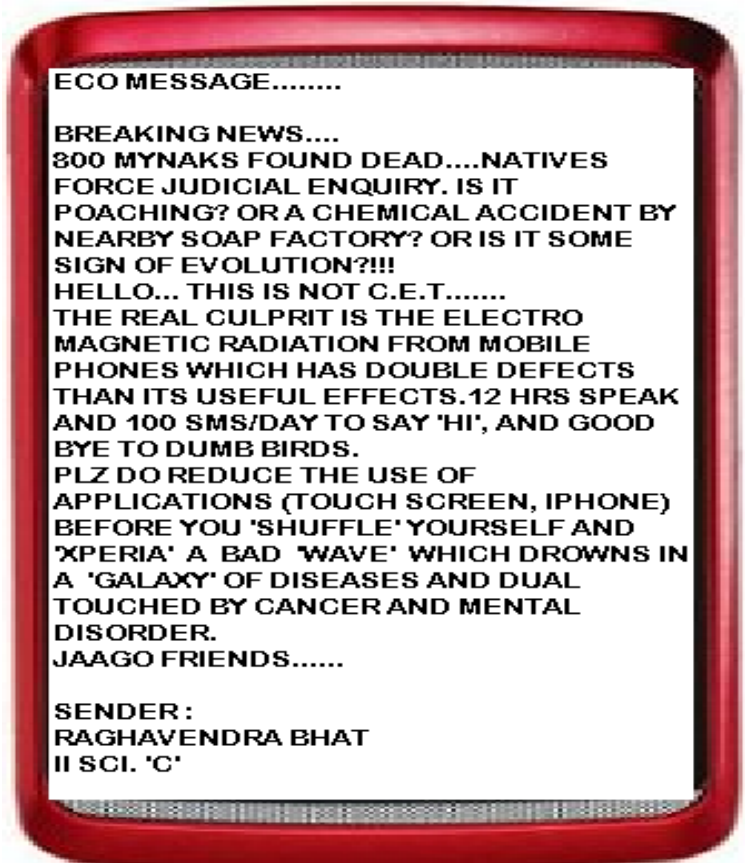
But tear her down in blood and crime.

How can our mother live?

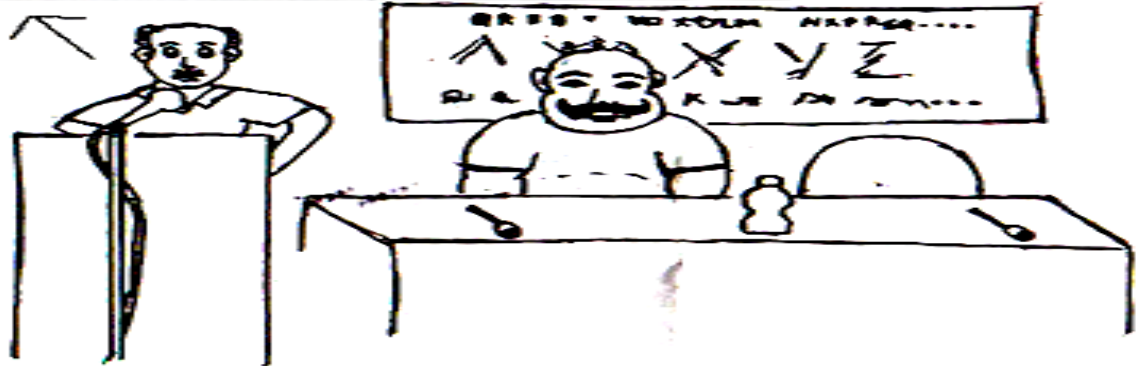
When we are killing her day and night!

Is that all the reward we give?

For a mother who silently suffers the plight?



MR. XXX IS A FAMOUS PERSON WHO HAS 10 CARS, 10
WOODEN FURNISHED FULLY A.C. HOUSES AND HE MARKED
GREAT FOOT PRINTS IN THE SOCIETY AND A DONOR.....



A DONOR OF CARBON FOOT PRINTS TOO...



RAKESH II Sci. 'C'

Questions.....

- Shreeya G. Rao , II Sci. 'C'

Toiling in the field, day and night
 Trees are brought up watering
 Every now and then under the showers
 Under the burning star striving hard.
 PLANTS ARE BROUGHT UP;
 The cold breeze; the pure air
 Takes us to the land of purity
 Why do people forget the act of maturity
 We do enjoy jolly ride on the motors
 But do we ever care
 About the harassing smoke and dust
 Is this really an act of pride?????

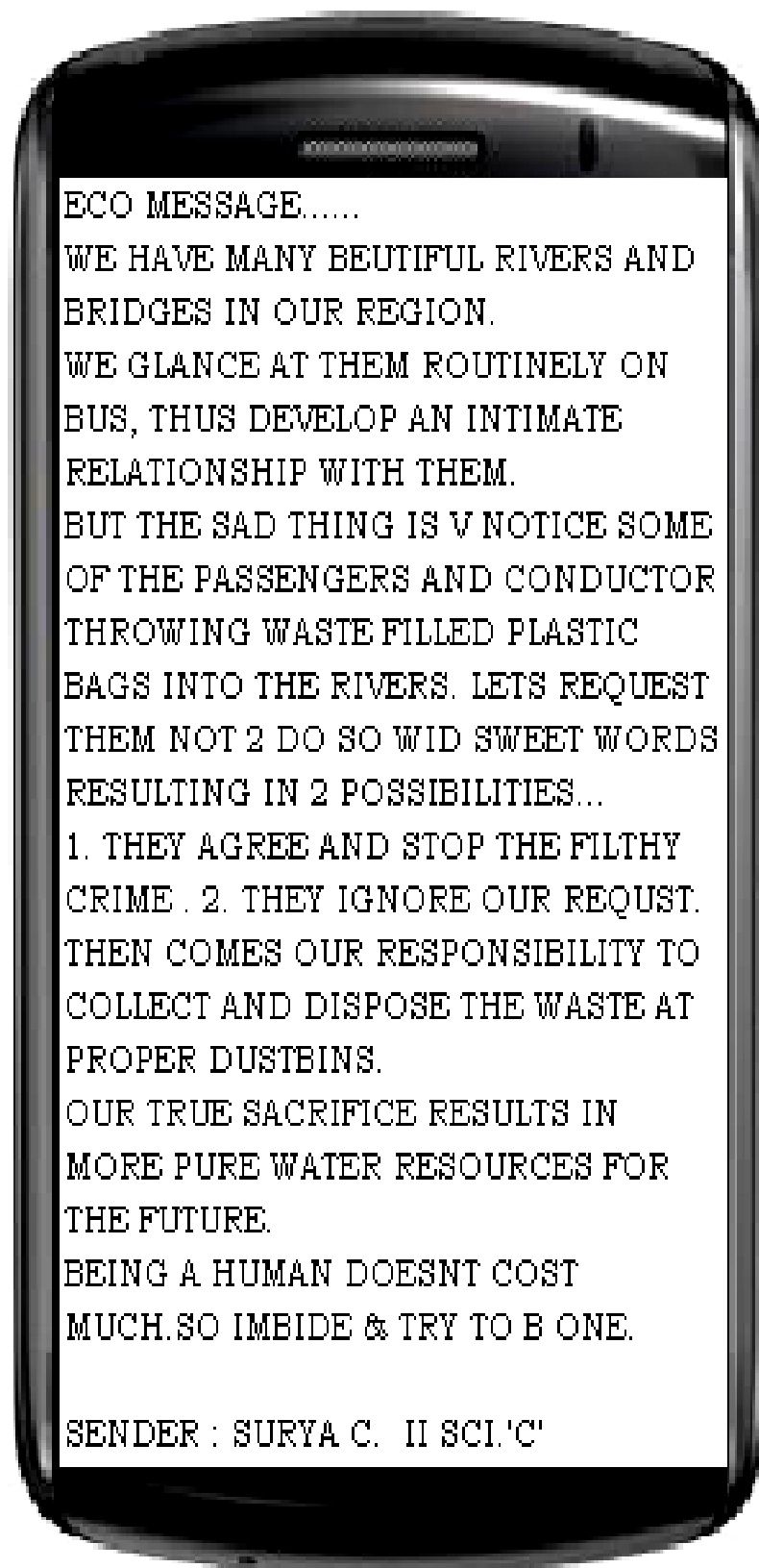
Creating a world of dense forests
 We live in the ever purest place
 Granaries of pure air and water
 Flowing in and around us
 Animals thrilled to be under grace
 Of the God of creation, parted from danger
 We do enjoy the natural and genuine being
 Than our artificial being!!!!!!

But why do we force us and others
 To dwell in the place called hell;
 HELL; because it lacks pleasure
 PLEASURE in leading a natural life
 But still people restrict themselves,
 The animals in the concrete world,
 Is this really an act of pride?????????

Smoothering the humus,
 Sowing seeds, being watchful
 Day and night, a plant
 Is brought up; quenching thirst
 And hunger of the needy people
 Why don't we consider this an achievement?
 And why build up a mentality that
 Wasting our earnings in
 Buying expensive materials is
 The real achievement and richness.
 Is this really an act of pride?????

I don't know what is right
 I don't know what is wrong
 But I know there's no harm in QUESTIONING
 Will I ever be answered??????

△



ECO MESSAGE.....

WE HAVE MANY BEUTIFUL RIVERS AND
 BRIDGES IN OUR REGION.

WE GLANCE AT THEM ROUTINELY ON
 BUS, THUS DEVELOP AN INTIMATE
 RELATIONSHIP WITH THEM.

BUT THE SAD THING IS V NOTICE SOME
 OF THE PASSENGERS AND CONDUCTOR
 THROWING WASTE FILLED PLASTIC
 BAGS INTO THE RIVERS. LETS REQUEST
 THEM NOT 2 DO SO WID SWEET WORDS
 RESULTING IN 2 POSSIBILITIES...

1. THEY AGREE AND STOP THE FILTHY
 CRIME . 2. THEY IGNORE OUR REQUST.
 THEN COMES OUR RESPONSIBILITY TO
 COLLECT AND DISPOSE THE WASTE AT
 PROPER DUSTBINS.

OUR TRUE SACRIFICE RESULTS IN
 MORE PURE WATER RESOURCES FOR
 THE FUTURE.

BEING A HUMAN DOESNT COST
 MUCH.SO IMBIDE & TRY TO B ONE.

SENDER : SURYA C. II SCI.'C'

REAL HEROES.....

**....DO NOT LITTER AROUND.
'THEY USE DUST BINS'**



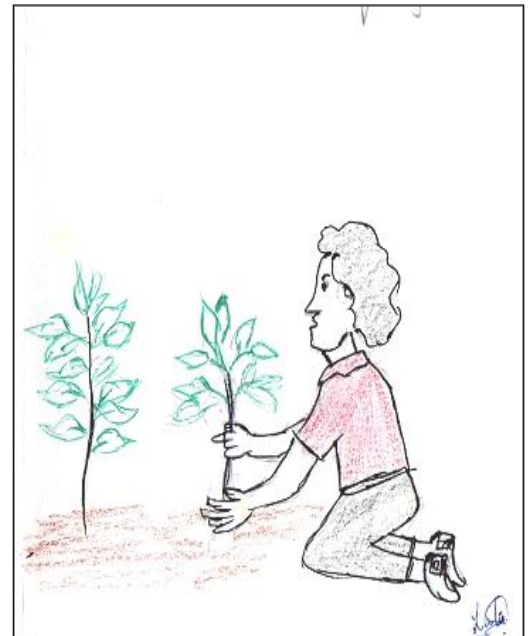
**... DO NOT ALLOW WASTAGE OF RESOURCES.
'THEY SAVE IT'**



**....DO NOT TURN A BLIND EYE TOWARDS
WASTE OF SCARCE RESOURCE 'WATER'.
'THEY TURN OFF THE TAP'**



**.... DO NOT CUT DOWN TREES.
'THEY PLANT THEM'**



- LEE LAVATHI RAO , II Sci. 'C'