



Earth is my Mother.

Earth's Five Basic Constituents (Panch Mahabhute) and all live forms are my relatives.

I respect ecosystems rich in natural resources and bio-diversity with interdependence.

I shall uphold the rights of all live forms on natural resources.

This Natural treasure is the source of my existence & sustenance.

No act I shall do which will adversely affect soil, water, atmosphere, energy sources, vegetation, wildlife and biodiversity on the earth.

I shall try to maintain my Carbon Footprint as minimum as possible.

I shall not squander the natural resources but utilize them only to fulfill needs and shall endeavor to replenish them.

I shall try to prevent pollution and abate whenever it occurs.

I shall also insist for population control, organic farming, sustainable development and everyone's equal share in natural bounty.

I hereby pledge to serve Mother Earth for conservation and rejuvenation of Nature and Sustainable Environment.

Child of Mother Earth At Nature Foundation, Sangli.



"Greenergy"

Speak in Green . . . . !!

"You never change things by fighting the existing reality.

To change things, build a new model that makes the existing module obsolete"

Environmental protection is a practice of protecting the natural environment on individual, organizational or governmental levels, for the benefit of both the natural environment and humans. Due to the pressures of population and technology, the biophysical environment is being degraded, sometimes permanently. This has been recognized and governments have begun placing restraints on activities that cause environmental degradation. Since the 1960s, activity of environmental movements has created awareness of the various environmental issues. There is no agreement on the extent of the environmental impact of human activity, and protection measures are occasionally criticized.

Academic institutions now offer courses, such as environmental studies, environmental management and environmental engineering, that teach the history and methods of environment protection. Protection of the environment is needed due to various human activities. Waste production, air pollution, and loss of biodiversity (resulting from the introduction of invasive species and species extinction) are some of the issues related to environmental protection. Environmental protection is influenced by three interwoven factors: environmental legislation, ethics and education. Each of these factors plays its part in influencing national-level environmental decisions and personal-level environmental values and behaviors. For environmental protection to become a reality, it is important for societies to develop each of these areas that, together, will inform and drive environmental decisions.

Architect

Pramod Chaugule

Editor, Greenergy



resenting "Greenergy" is an absolute pleasure because it encompasses issues very close to our heart, soul and survival. This endeavor aims at reaching all corners of the globe and spreading the message of sustaining a greener and cleaner mother earth. We have been endowed with green abundance, in various forms! We have been lucky to enjoy the mercies of mother earth. Though, slowly we have come to a stage where there is a need for an earnest pledge, a pledge to do something, maybe apparently very small in itself, but very significant in the long run, where we can conserve and preserve, what remains with us, of our environment. We, at "Greenergy", believe that each and every one of us, can contribute in our own way, towards the protection of the green treasure that we have been endowed with, in order to leave a green legacy for the generations to come!

Nature, through evolution, has taken billions of years to produce a wide diversity of plants, animals, living beings and us, humans. We really have to ask ourselves today, if we are justified, as the right species, to avail of the fabulous gifts of nature? The barest minimum requisites of human life have become things to be coveted! A breath of pure air, a drop of pure water, a morsel of pure food, have become rare luxuries. As has been rightly said, "Green is the prime color of the world and that from which all loveliness arises". Trees and plants have always been great friends of mankind.

What do forests bear? Soil, water and pure air!

But isn't this soil, air, water becoming a poison? How much ever we try to disbelieve it, it is just a tip of the poisonous iceberg deep down! Can we not, as the most intelligent species on this earth, do something about it? It is we, who have to get together and fight against this poison, which is slowly engulfing us!

"Greenergy" is an earnest invitation for all the nature lovers to join our brigade of "Green Concern"! We, at "Greenergy", invite you to pen down words, comments, suggestions, in favor of dear mother earth, the ample treasure trove, she has bestowed us with and to join hands with us in our green endeavor. We envelope "Green way of life, Green concepts from youngsters' eyes, up cycling green and small everyday tips for a creative, satisfying and inspiring way of life!" "Greenergy" is also a platform to ponder upon how, in our own small way, we can contribute towards conservation, preservation and propagation of nature, use the alarmingly depleting natural resources sparingly and sensibly!

Dr. Mrs. Jaya Vikas Kurhekar Executive Editor, Greenergy



# Earth: Evolution of Biodiversity

**Dr. Sunil Kumar Lawate** [Translator: Dr. Jaya Vikas Kurhekar]

arth being the only one, with life on it, is an exceptionally significant component of the universe. Earth was generated from the solar system. About five billions of years ago, earth originated from extra- celestial gases. It was initially, just a cloud of dust, moving at a very fast speed around its own axis. This fast pace created various whirlwinds leading to an imbalance.

The whirlwinds became denser & denser. Preliminary gases like hydrogen, carbon-di-oxide and nitrogen originated from this cloud. Various gases & liquids came into existence because of the centripetal & centrifugal forces. The gases & liquids further separated from each other. It is assumed that the earth must have originated from liquids which were probably cold. Originally, earth was as hot as sun. Gravitational force came into existence on earth, as it became denser & denser. The generated heat led to the softening of earth, forming mud like consistency, leading to formation of water bodies.

Gravitational rotation of earth around the sun & around its own axis resulted in a cycle of environmental changes. This led to favorable environment for creation of life on earth. Gradually, oceans, mountains, rocks, valleys took form. The neutrons, protons along with the acid rains give birth to unicellular life on earth - amoeba. The cycle of seasons started, leading to the evolution of multi cellular life – bacteria, plants, animals, birds, and human beings. The evolution of human beings has been a journey from "monkey to man". Yet, we can say that due to the interactions between flora, fauna & environment, modern man came into being.

In ancient times, man was moving from place to place, used to live in groups, in jungles, caves & forests. Slowly, he started farming, tending, domesticating animals. This gave him stability. A community took shape. This led to the formation of villages, society, cities and nations. From human translocation & possessiveness, wars & attacks originated. The fight for survival & existence led to the development of ego. Culture, religion & language developed, leading to the shaping up of philosophy, science & technology. Man started with a friendship with nature but his tendency towards material & physical possessiveness, made him fight with nature.

## Man: A nature destroyer



an has been utilizing the natural resources uncontrollably, greedily acquiring physical & material gains, unwisely breaking natural cycles. He has forgotten that his own survival depends on nature. On the sole basis of intelligence, a curiosity to search the unknown & evolution of science, he developed technology. One small invention of a 'raft' made Archimedes comment egoistically, that he would develop a raft which will be enough to uplift the earth. But his next generations turned out to be more egoistic than him. They were happy & satisfied not with only uplifting the earth, but turning the earth, upside down. It hurts the natural cycle, when tools are used to break the soil for sowing. In this situation, man started using ploughs to break soil layers.

He was not yet satisfied so he invented the JCB, considered as the octopus of agriculture. He was not satisfied with disturbing the upper layer of earth crust. He dug into the earth, to extract elements, he sowed granites into the earth to disturb the environment and proceeded with great haste to dig deep into the earth's core! Once a boon called 'fire' was acquired, he started pulling down the forests and devouring it. Basically a vegetarian, man started enjoying the animals roasted in the forest fire & he got addicted to killing and poaching animals. He started abolishing animals, birds and marine species one by one, ending their generations.

The same happened with the air. Artificial rains, wind mills, forest cutting, blocking of rivers, building of dams, lake tapping, vapors, smoke, carbon, industries, rivers of chemicals have all disturbed the nitrogen cycle, rain cycle and season cycle! Bombarding of oil wells, wars, green house & carbon explosions have bore holes in the ozone layer. A very ambitious man has encroached the sky and installed thousands of satellites, creating a dust-bin there. The same has happened with the oceans. Submarines, water bombs, oil wells, fishing, oil skins on the surface of oceans has disturbed marine life, playing with the five basic elements of life — earth, fire, water, air and sky. A time has come, when man faces a risk of being extinct and now he is coming to his senses, thinking of protecting the environment!





t true that the danger of environment deterioration first arose in the developed nations but it is also true that the thought of protecting the environment also took birth in the same nations. Today, developing countries like India are thinking about this, at a primary level, but unpardonable negligence & destruction of nature also takes place more in poor nations, like India. This is because, natural resources are the axis of its survival. All natural resources are not generated again and again.

Water, solar energy, forests, if used up, can be regenerated, its loss can be replenished, but the treasure of minerals once used up, cannot be replenished! Gold, Iron, Copper, Bauxite, Petrol, Gas, can be utilized, as long as it is available but its end is decided. Iron will be totally used up in the forth coming two hundred years; gold is almost coming to an end of its utilization. The same holds true for land! It can not be generated. Man has started realizing that if oceans are displaced, they spread elsewhere and Tsunami arrives. Implementing any plan of development destroys nature, whether it is the construction of a highway or an airport! Water is one basic element that has succumbed to human enjoyment.

The water table in the core of earth as well as on earth's surface has decreased. We should realize that when rivers, lakes, canals, streams and wells dry up and are devoid of water, it is nothing but the depletion of water! The main reason behind the pollution of rivers, cutting down of forests, pollution of air in India is the greed for development and along with it, the lack of environmental awareness!

There are many environment protection laws in India but the system for their implementation is lacking. One more reason is the lack of political desire. As long as the culture of nature conservation, preservation and emotional literacy is not included in our education, the depletion and deterioration of nature will not cease!

The religious mindset of Indian society has to become science based and free of superstitions. It is necessary to understand that river pollution is less because of industries and more because of religion, religious rites and festivals. We should think of the 'Kumbh Melas' in this context!





visited foreign countries twice thrice, for long periods of time, during the last twenty five years. My destinations were Europe and Asia. Europe is rich and very much aware about its environment. On the other hand, Asia is poor and a destroyer of its environment. But it is worth noting that small countries in Asia, like Japan, Singapore, Hongkong, though merely small islands, show a lot of environmental awareness because of the huge impacts of destruction, that they had to face in the past. In our country too, every year, one or the other place faces floods, famines and earthquakes. But we have not been able to establish an efficient preventive and conservative natural calamity management system.

Our twelfth five year plan is being implemented, at present. But, we have not yet started thinking about the equilibrium between nature and its development. If we study the Sangli, Solapur, Satara districts, we observe that a part of these districts is forever facing famines while a part is forever rich in irrigation. On one side, natural resources are being extravagantly utilized while on the other hand, even in rainy season, drinking water has to be supplied by tankers and that too becomes difficult. On this background, many countries that I have visited in the world are seen to conserve, preserve and cultivate nature.

It is possible for us to understand these methods, imitate some preventive measures and exert control. One simple example is of the supply of water required for agricultural irrigation. In order to provide water to our agricultural land, we build dams, dig canals and provide water through small outlets. This is a waste! Instead, we can employ drip irrigation, block and absorb water, build farm lakes, refill old wells and lakes and carry out excavation of redundant wells and lakes.

These are some measures which can not only conserve, preserve and cultivate nature but also enhance the levels of natural resources like water! Hence the need to implement these measures! It only requires wisdom and planning to use natural resources sparingly, when absolutely essential; prevent wastage of food, air pollution and water flushing. These measures do not require money. We can learn a lot from a country like Israel. A poor country, which cannot generate natural resources should utilize them wisely. It's high time, we understood this fact!

# ENVIRONMENT CULTIVATION & PROTECTION: MEASURES UNDERTAKEN BY THE WORLD

### EUROPE-

n 1990, I visited France, through India France exchange program. I extended this visit and toured many countries in Europe. I was in France for three weeks; ten days in Paris and ten days in France! I saw Switzerland, Austria, Netherlands, Belgium, England, East and West Germany, Vatican, Luxemburg and Italy. Of all these, with reference to environment development and protection, France, Switzerland, Austria, Netherlands were more aware and disciplined. I found Italy and East Germany more like India. England, West Germany and Luxemburg were environmentally more aware.



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was in Paris, at the end of the first week of May. Tulips blossomed everywhere. A fantastic awareness and love of nature was apparent in the city, homes, offices and industries. A thing most remembered and etched in my memory, was its culture. Paris is a city of culture. Nature takes the first place in its culture. The fact that, in 18th century, a Forest Protection Act existed there is enough to make the difference between them and us, very clear. At the beginning of the 20<sup>th</sup> century, they established a National Law for Nature Protection. All those natural places, monuments, forts, gardens, forests, oceans, ancient places of importance which were significant for their art, history, science and beauty, were declared as "protected".

They didn't stop here; they searched for measures of protecting these places, in their basic, natural forms! During this journey, I visited a small place called Metz. It was the place of France Germany war! The whole village was declared as "protected". The roads were made of stones, in spite of high speed cars. Not even a single house was exteriorly modern. Drainage System was a hundred years old. In addition, a parallel modern drainage system was erected. Tree cutting was prohibited. No one was allowed to stay on the hills and mountains. Even immersing hands in river water were prohibited. The milking of cows and buffaloes in the dairies was controlled. Milking beyond the amount decided was prohibited. The rates of milk, amount of milking of cattle was planned and was a part of national policy. High "Nature Value Farming" was encouraged.



This is a land which is described as "the heaven on the earth"! I visited Geneva, Interlaken, Jungfraujoch, Zurich and Bern. The visit to Jungfraujoch, which is described as "The Top of Europe" was an experience out of the world, a visit almost to the heaven. In this country, nature is given topmost priority and considered as the "Life Line"! 31 % of the land is occupied by forests. 1 lac people are dependent on the forests for their daily bread. The climate is cold, the region is snow covered. Water bodies and water sources are in ample. Rivers an lakes are full of water. Water flows everywhere. On enquiry, I came to know that it is a clause in the constitution, "to keep the water flowing"! It must be an exclusive country in the world, which has considered nature cultivation and conservation so important, that it has been included in its constitution. The government guarantees the people, pure water. They take absolute happiness in providing pure tap water at a rate 55 times less than the mineral water bottle. When they realized that the temperature of the snow clad region had decreased by 10° c, they planned a national crisis program.

It is a country which has banned the use of wood, in building houses, in spite of having ample of forests! There was a time when, wood was used to maintain the warmth of homes. Every home had a fire place. But now it has been replaced by central heating, electric furnaces and heaters! They take satisfaction in the fact that the use of wood, as fuel, has reduced considerably. We celebrate 'Holi' festival and if we do not feel that we are wasting natural resources, during this festival, I believe, it is an indicator of our environmental illiteracy! Can't we call Switzerland a "nature's heaven", enriched with 50,000 types of plant species and 30,000 types of animal species?

What I liked most in this country was the focus on recycling of paper, plastic and tin sheets. This country holds the first place in the world for recycling and is considered as the "Champion of Recycle"! This project was especially implemented in the railways! Every second, the railway employees are collecting the waste papers, tin cans of beer and coke, bottles of glass and plastic, on the station, as well as in the rail carriages. Every year, around 25 lac plastic bottles are collected, which gives 65,000 tons of plastic. This plastic is reused to form beds, pillows and T-shirts. 47 % of the material used by the civilians is recycled and reused. Indians spoil the environment extensively, during travel. If Indian railways employ just one scheme of cleaning the stations and carriages every second, it can recover



# Netherlands

Nature Policy plan! It has developed a Nature Ecological Network. Hundred of acres of land under agriculture, forests, barren land, wastelands, mountains, hills, valleys are protected as "national property". Besides, if you decide to declare your own land as "nature protected" land, the government pays you an amount equal to your agricultural income. Various schemes for nature protection and cultivation have been planned and implemented like, lawns around your homes, lakes in every colony, trees with flowers and fruits on both sides of the roads, protected grazing lands for cattle at every town and village, ban on chemical industries and smoke free regions! This country is known as the strong supporter of "World Wild Life or WWF". It is a country famous for good co-ordination between human population and cultivation of animals, birds and living beings! It is described as a "Green country" and its greenery is eye pleasing, as compared to the other countries in Europe! The awareness about nature is visible everywhere, at cities like Amsterdam, Rotterdam or small villages like Zeist. The relationship with soil and mud is enhanced by keeping all walking tracks of mud. In spite of having huge six track roads, I wondered how they never forgot to plant a line of trees, in between.



Austrian cities, Innsbruck, Salzburg, Vienna have a beautiful balance between nature and technology. Innsbruck and Salzburg can be called as second Kashmir! Biodiversity with lots of colors, leaves, flowers, animals, birds, butterflies, land and water – is the characteristic feature of these regions. The awareness about biodiversity of flora and fauna has been spread worldwide, by this country. I attended a pop concert of Siemens, at the UNESCO office. My friend Paul confided in me. He told me that he had come from India and he never thinks of going back to India because Austrian government thinks more about nature than man. People protect the old and embrace the new. I had seen metro, trams, railways, buses, aero planes, in Vienna, along with the victorias. Just one example will prove how much the government cares for the animals!

Austria enjoys six months of summer and six months of winter. Winter brings snow everywhere. This country is nature lover as well as culture preserver! They have preserved their palaces, churches as well as victorias. The victorias have to be closed down for six months, when the snow falls. Austrian government pays the victoria owners, two allowances for six months. One for the victoria driver, for not being able to work and the second one for the horse, as the horse has to be kept alive, hale and hearty! I believe, it is the only country in the world, which spreads the culture of considering "culture" and "nature" as two sides of the same coin! Switzerland, Netherlands & Austria are three countries in Europe which are considered as "Green Economy countries".

The tourism in these countries thrives on, "greenery everywhere! A lion's share of the national income comes from nature. We do not lack this type of nature in India. But we haven't been able to think in this way! It is a fact that we have not been able to transform Konkan to California! This is 'Green Gold!'Preservation of "old that is gold" is the same as preserving nature!

### ASIA -

I visited Asian countries like Singapore, Thailand twice and Japan, Malaysia, Hongkong once, in different seasons. I travelled by bus, airplanes, railways, metros at times! I could see the nature very closely, during this travel. I could see oceans, land, mountains, valleys, forests, rivers, gardens, animals, wild life sanctuaries closely. Malaysia, Singapore, Japan, Hongkong are rich countries, Thailand is a poor one! Its richness is slowly enhancing, by destruction of nature. The culture is also deteriorating. Japan is an environment conscious country. It has experienced a world war and has taken a lesson from it & has become smarter.



Japan is a country of 700 islands. Tokyo, Kyoto, Nara, Kinkakuji were some places I visited. I experienced their 'tea ceremony' 'ikebana course' hotels, geisha, saw their art, culture, social work, remand homes, old service centers (not old age homes!) I realized that in an attempt to conquer nature, man has conquered death! Their worry is a different one, people do not die! An average age of Japanese is 80 years. They strive at making everything, neat and tidy. The environment awareness is so sharp that, rains in October makes them wrap the trees on both sides of the road with sack cloths, branches supported and protected, so that the trees do not die, because of the cold or branches do not get fractured. Can we compare us with them?

Unthinkingly, in a fraction of a second, we cut down 100 year old trees, on the road and they protect the bottoms of their lakes, so that each species of fish thrives! Japan has employed hundreds of projects, programs and plans to create oneness between man and nature, in order to protect and cultivate both. Japan has the most recent data on natural resources as they conduct surveys regularly. Japan has been able to develop itself and its tourism, controlling the pollution of land and protecting the biodiversity.

Priorities have been given to regions in nature, according to their significance; protected regions, tourist regions, general regions and so on. While providing facilities to the tourists, they give maximum importance to 'nature'. They have 'vacation villages', but tourists are bound to commute through the prescribed roadways and pathways only. They have created bath places, at the hot water springs, attempting to save the hot water springs in their natural forms; at the same time providing the facility of enjoying a hot water bath, to the tourists.

An invariably characteristic feature of their culture is a "common bath"! Bathing in the nude, is considered important and it proves the principle of 'going back to nature'! They consider bathing as a ritual, love being immersed in water for hours, like buffaloes. We bathe, considering bathing as just a rinse in the water. To experience this, one must bathe in the bathrooms in Japan. My experience is that, the happiness one gets in 'eating together' is also achieved while 'bathing together'!

# ★ Hong Kong

This country is like Japan, in the sense that, environment and tourism is considered 'one'! One example is of the Disney world! China's erection of Global Geo park, Marine park, educational program on 'Nature in Touch', Camp sites, tourist spots in mountainous regions, prove this. They have laws & systems for recording the names of rare trees and plants. When I visited last year, I read about the new government policy of cultivating nature and remembered that they had prepared a 'Green Model' for the Asian continent.

All these experiences lead us to one thought, the world has to preserve nature, more out of wisdom, than money! The country that plans for long term development has to do it through the protection, preservation and cultivation of nature. We do not even think about this! To protect nature, is to enhance life and to enhance economy. It is wisdom, to protect a hen, which gives golden eggs as it will give us an egg every day. We have to imbibe this thought within ourselves; it's high time we do it! Otherwise we will experience our own death, losing everything that we possess!







Tsangpo...in China Lohe...in Arunachal Brahmaputra... in Assam Padma...in Bangladesh

Stamps



# STUDIO 8-8-8, ABHALMAYA AN OFFICE WITH A GREEN DIFFERENCE!

With all the wonderful action that takes place in the world of architecture, it's nice to sometimes slow down and take a real good look at something that we have found rather interesting. The experience is like that of a child walking down the garden path and discovering a little snail steadfastly making its way to the end of the garden. The child stops, sits down and observes – the beautiful shell, the soft body, the silver trail – all of it is a learning and an experience to be cherished long after snails have stopped to fascinate.

This issue of InterEdge is one such experience that we wish to bring to you.

A detailed look at an interesting experiment in architecture done by Chaugule Patil Consultants Pvt. Ltd., Sangli: we have reviewed their experiment and shared the thoughts and ideas of the architect in the hope that you may see the structure through his eyes.

At Godrej Interio, we believe, learning from each other, sharing as a community can play a big role in our growth as individuals and professionals. We would like to extend a sincere thanks to the Chaugule Patil team for taking the time to share the details of this project with us and our readers.

Trust you will find several interesting insights here that will make a dent somewhere in your creative world as well! Happy reading!

#### **An Introduction**

'Studio 8-8-8 Abhalmaya' is Ar. Pramod Chaugule's own office, located at Local Board Colony, Near Udyog Bhavan at Sangli. The site is a rectangular plot measuring 4000 sq.mts. The construction of the office was proposed in 2008 and was completed in the same year. It is an ideal example of an office which is built at the lowest cost, while achieving the highest level of energy efficiency.

Studio 8-8-8 'Abhalmaya' is an outcome of conscious efforts towards creation of an



 The compound wall has been constructed by cohesively bringing together various waste materials collected from other construction sites.

environment friendly or a 'Green' Office Design. It is a properly designed work place which requires less building infrastructure, takes up less space, produces less heat, and consumes less power than traditional work spaces while supporting employees more effectively with a pleasant indoor atmosphere and green outdoors.

The use of local, recyclable and waste materials and green modes of construction has considerably reduced the project cost. Energy efficiency for the office building has been achieved through implementation of several solar passive strategies, combined with the site resources.

The building is designed to meet the occupants' need for thermal and visual comfort at reduced levels of energy and resource consumption.

#### From the Architect's office

'The use of local materials with consideration to local climate and participation leads to A Holistic Design Approach.' ~ Laurie Baker

According to Ar. Pramod Chaugule, the man behind Studio 8-8-8 design, 'All built up areas must provide a good and healthy living environment. Building designs and their locations must consider the environmental principles. The resources such as land, water and other renewable and non renewable sources must be totally used.'

Today, architects tend to use 'energy intensive' as well as 'monetarily expensive solutions' that are usually harmful to the environment. The use of various energy resources for heating, cooling, ventilation and lighting can cause depletion of the natural resources.

The idea of 'Green Design' is to modulate the climatic conditions to a comfortable level by use of several parameters of design such as site, landscape, built form, building envelope, materials and other control measures.

All these design principles have been closely followed in the structure of 'Studio 8-8-8'.

#### Recycling to control costs

The use of waste material in place of some standard materials has helped reduce the cost of construction. The project has been made affordable and green through the selection of ecological and economical materials, and the usage of recycled wastes and composites.

# Fusion of Vernacular, Ancient and Post Modern Architecture

The structure's design depicts the ethos of the surroundings, its culture and traditions. It is a perfect blend of Vernacular, Traditional and Historical aspects of the locality and the result is a harmonious and an energy efficient structure.

Façade shows a fusion of Post Modern and Ancient architecture. Similar forms are observed in interiors, reflecting a flair for Vernacular Architecture. The shapes and forms reflect diverse aesthetics with harmonious collision of styles adopted for its own sake. The staircase block tilting in glass and ACP reflects the post modern character of the structure which forms a background to the main structure in foreground. It is constructed of robust and tough stone work of cream white Gokak stone and black undressed sun-pointed Basalt stone.

It is a combination of bold, earthy and solid

foreground against a small, delicate and dreamy background. The resources consumed are as few as possible.

The architect has taken great efforts to follow the principle of 'Green & Affordable Architecture' in each aspect of his design.

#### The structure from the outside

- The external elevation from the road shows a beautiful compound-wall constructed of waste materials, where several stones are placed in interesting patterns along with colorful MS pipes.
- Compound wall constructed out of several materials in cohesion: Two granites are placed on both sides of the gate. Also an eye-catching monolith stone slab stands near the gate.

Focal point of the elevation is 2 yellow 'Rabkavi' stone pillars provided in front of the entrance. They are topped by two horizontal pinewood planks, fixed by steel pipes to the pillar.

- Combination of 'Gokak' and 'Black Basalt': Harmonious composition of several stones is seen on external elevations such as construction of external wall with creamish 'Gokak', end walls with sun pointed black Basalts and window frames with 'grey Granites'.
- Composite-wall of red 'ILLKAL', granite and black basalt: An extremely beautiful wall acts as a partition between two adjacent spaces. It is a



At the Entrance: The focal point of the elevation is a pair of yellow 'Rabkavi' stone pillars.

composite wall of red Illkal, Granite and Black Basalt. The wall is topped by a flat stone of marble resting on a concrete sphere.

#### Inside the building



The separation wall topped by a flat marble stone resting on a concrete sphere.

Ground floor is marked by the reception counter at the entrance, the accounts office, conference area and naturally lit and ventilated pantry. The interior space of the office is a charming combination of several materials which are mostly re-used from the wastages picked up from their other sites.

A wall of finely dressed black basalt stone welcomes you at the entrance which is treated with two niches for placing the lamps, similar to that in a temple creating a serene atmosphere.

Upper floor is designed as a complete technical area with spaces allocated to three Directors, of whom two are Engineers and one is an Architect.



Reception with seemingly floating stairs

#### Imaginative ceiling

A wide range of project photographs cover the ceiling giving an idea of the wide variety and challenging projects done by this firm. Very basic materials with simplest modes of construction are found in interiors.

The office space is free flowing without any fullsized partitions which give a feel of simplicity, oneness and openness to the whole space, while the innovative exteriors bring in a freshness of character.

#### Architect's space

The architect's space consists of a table made up of wastages of 'Gokak' and 'Marble' stone. This space displays a very eye-catching mural made up of foam concrete with a theme of 'Creation,' rendered by artist Suresh Pandit.

# **Green Initiatives Energy efficiency measures**



Mural by artist Suresh Pandit, made up of foam concrete block

Reduction in energy demand is achieved by use of solar passive strategies combined with site resources. Energy demands are reduced by energy efficient lighting and control devices. Renewable forms of energy like application of wind-mills, rain-water harvesting, air-conditioning by earth tunnel provision of SIBF system, recycling of waste is used in design. Waste management is achieved by reduction of water use, by efficient



Windmills on the roof and wind-catcher (part of the Earth tunnel) in the compound to aid air-conditioning.

water harvesting for storage and reuse.

A very significant aspect of this design is the use of waste or recycled materials from other sites which achieves cost saving along with reduction in energy demands. Two windmills – One of 3 KW and other of 1 KW are provided on the terrace, which generate total 3833 Kwh per year. They take care of all domestic lighting and battery charging for inverter.

Due to the optimum glazing area provided, no artificial lighting and cooling measures are used in daytime, reducing the energy consumption by 3185 KW and also reducing CO<sub>2</sub> generation by 2708 Kg.

#### Water treatment & Recycling

The innovative feature of this project is provision of SIBF system which treats 1000 liters of domestic used water and gives back 900 liters of reusable clear water. The treatment plant merges with the surrounding landscape.

The rainwater-harvesting system makes for ground water recharge of 2,00,000 liters/year. An earth tunnel is provided for cooling effect. A wind



SIBF system employed for water recycling.

catcher from the tunnel helps the reduction of south-west heat while protecting that side of the structure. Further, cavity walls are used at the west side of the structure to protect from extensive heat.

#### Reduce

This office has reduced the paper waste by 25% by implementing the reuse of printed papers and green diaries. The organic waste of office campus is treated by composting, the by-product is a manure which is used for gardening.

North-side of the structure is fully exposed to diffused north-light by means of a full-glazing. The floor to opening ratio is nearly 80% providing a feel of airiness and open-ness to the space. A sufficient amount of light penetrates inside without giving a glare. Design of the structure takes care of the western-wind.

Every structure is characterized by its own unique features. In the design of Studio 8-8-8, the architect has successfully grasped the natural characteristics of the environment and imparted them to the structure, making it a visually appealing space that's green, while being comfortable to work in as well. The structure, designed as a Sustainable Habitat, is so well integrated with its local environment that it has become the pride of its surroundings.



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t's true that educating people leads to deforestation, so what would you do? Save the planet or educate the people? Saving people seems to be right choice. But it's also important to save the planet. After all, more people educated equals more books printed. If more books will be printed, more paper will be manufactured, more plants will be cut. Is it that simple? What is it? Let's find out. Consider Mexico, where, nearly 0.3 million hectares forest areas have been cut, over the last twenty years. And one third of it has been used to manufacture paper. Surprising, isn't it? Now look at Peru, where, nearly 0.2 hectors of forests have been cut down over the last 10 years. It is estimated to be nearly doubled by 2020. If it continues, the condition of earth will be worse in a few years. So what do we do? The thing that we may have to do, is to change the methods of educating students. As technology becomes more and more advanced in the society, it needs to be the same in schools too. The classes have to be transformed in to digital classrooms, where teachers can use digital devices to explain difficult topics. They can engage children, through stories that teach and inspire. They could use interactive games to get students involved and to make them interact with the medium and have fun while learning, at the same time.

If this method would be implemented in only primary schools, There will be an 18% reduction in paper consumption. At this rate we can save 20.70 billions of sheets of paper every year. A simple effort to reduce deforestation! One person alone cannot bring about this change. What we need to do is, we all have to contribute by initiating mission saving one paper per day. We all have to take an oath of saving one paper per day. All the leading newspapers have their online versions, newspaper can be read digitally. The fonts of printing work can be minimized. Clothes can be used to wipe & clean instead of papers. This will be a small step towards conserving nature!



## WINDS SING ALONG!!

Winds sing along,

Stars dance to the song,

Forests catch the tunes.

Pastures, rivers, oceans and dunes!

Winds sing along,

Birds in rhythm, fly,

Clear streams bubble,

In happy mood, comply!

Winds sing along,

Wind mills catch the pace,

Energy generated fluently,

Oh, how life progresses!

Winds sing along,

Happy sea waves,

Winds form storm,

Mother earth for skies, craves!

Winds sing along,

Fragrant flowers bloom,

In homes and in gardens,

Kids flutter and zoom!

Winds sing along,

Listener being the Nature strong,

Winds inspire the whole being,

Singing melodious song!

Dayasagar Banne

[Translator: Dr. Jaya Vikas Kurhekar]





### **ABHALMAYA FOUNDATION**

Studio 8-8-8, Local Board Colony, Near Udyog Bhavan, Sangli. 416416.
Ph.: +91 233 2675888, Fax: +91 233 2670388.
E-mail: abhalmaya888@gmail.com, web: abhalmaya888.org