

SHRI RAM COLLEGE OF COMMERCE

Centre For Green Initiatives

AVNI



2017-2018

Index

About the Magazine	
Principal's Message.	
Convenor's Message	
7 Eco friendly hacks.....	1
Global Dumping off the coast of west Africa.....	3
Carbon Sequestration.....	6
Under the hood- Riding the Lithium peak.....	8
Marvels of Meghalaya.....	11
Ordinary People- Extraordinary Changes.....	13
Nature and Me.....	15

About the Magazine

AVNI

/av'nee/

(noun)

“The earth; The planet on which we live in”

Avni – The Earth ,our Mother. Our existence is entirely dependent on the earth and it's gifts. The always caring and loving mother is now facing a crisis to it's existence by us. Everyday we are detaching ourselves from it's lap. It is the need of the hour to retreat our steps and reconcile with Mother Earth.

AVNI- the annual magazine by Centre for Green Initiatives is a small step to reconnect people with Mother Nature. The magazine invites students , teachers and various enthusiasts to share their feelings, knowledge and experiences of Mother Nature. The magazine contains scholarly articles on important environmental issues along with **Nature and Me** section which sheds light on various steps taken by our colleagues to save nature and it's components.

Our commitment to sensitize the masses and inculcation of environmental values can be understood with the help of various initiatives taken by us during this academic session.





The Principal 's Message

An integral part of its institutional social responsibility, environmental care is embedded into the ethos of Shri Ram College of Commerce. The College has always proactively taken steps to ensure discharge of its obligation towards the environment in creating a greener tomorrow. This magazine represents a spirited initiative towards the manifestation of ideals of the Centre for Green Initiatives to spread greater awareness of environmental issues amongst a larger audience.

I wholeheartedly congratulate the entire team of Centre for Green Initiatives for their persistent efforts towards the creation and publication of the second edition of Avni.

Prof. Simrit Kaur
Principal

From the desk of The Convener



Last year, we evolved a paradigm in fulfilling our responsibility towards the environment in form of Avni- our annual magazine anchored to provide a platform to a larger audience in the context of latest developments in sustainability. In its second edition, the magazine connects creativity and research to environmental care and highlights a spectrum of ideas, original writings and day to day activities that can help preserve our environment. We have also expanded Avni to include the major activities of the Centre throughout the year. We hope that current edition of Avni will be thought provoking and generate action amongst its readers towards the environment.

Dr. Rachna Jawa
Convener

7 *Eco-friendly hacks*

By Sonali Jawa

B.Com(H)-II Semester

These are a few ideas that can be used to create a more green-friendly home. Start taking actions with green initiatives within your home to help the environment today.

1. Make use of natural light as much as possible

Rather than relying on artificial light and conserving energy, seek to make the most of external lighting. Natural light provides a bright, warm ambiance and also provides natural heat into the home.

2. Reduce waste by practicing greener habits within the kitchen

- Replacing disposable napkins with cloth napkins.
- Replacing disposable knives, forks, spoons, plates and cups with metal, ceramic or glass equivalents.
- Recycle bags (such as shopping bags) for other uses within the home.
- Recycling cardboard boxes for future storage.
- Switching from buying bottled water to investing in a water filter for your tap.

3. Install rain tanks to use the water.

• Rainwater tanks are a great solution for the home's water supply. The natural rainwater can be used for watering plants, for the toilet cistern, as tap water or even as drinking water.

4. Put in place recycling initiatives when it comes to waste.

• Encourage recycling within your home by educating and advising everyone within your home about green options for recycling paper, plastics, glass and compost options.



5. Conserve water when you are bathing.

There is a lot of water that is wasted when washing. Ideally, one should use a washbasin with a few litres of water. However, if this cannot be done, aim to minimize water wastage while taking a shower.

6. Turn on airplane mode

Keep your mobile phone on 'airplane mode' as often as you can - it saves the battery- need to charge it less often, saving energy

7. Start composting

You don't need a massive garden to get composting. This is the natural process of decomposition that turns organic materials like garden waste and vegetable food scraps into a dark, crumbly and earthy-smelling material called compost. It reduces trash waste by 30%, which in turn cuts down on landfill waste. You can use your finished product for indoor house plants too! Small compost bins are the most popular way to reduce waste in urban areas, but there are plenty of options from food digestion cones to tumblers and turning systems



GLOBAL DUMPING OFF THE COAST OF WESTERN AFRICA

By Prabhmaan Singh Thapar

B.Com(H)-II Semester

In the world of ours' everyone agrees on survival of the fittest, however there even exists a scenario where resources, greed and the urge to surge overtake and there comes the action of the catalyst; known as Foreign Relations. Through this research paper of mine, I would like to undertake the study of harmful and obnoxious affects of one's doing on another's country/continent.

OVERVIEW OF THE PROBLEM

African western horn is often regarded as the most vulnerable when we refer to pollution especially, the water pollution and most of the waste dumped here by the third parties, including nations and organisations (both extremist and non-extremist), is generally radio active, which boils down to simple consequences which every radio-active element has, which includes, but is not limited to harmful cosmic radiations which initiate a chain of actions and lead to creation of a link of reactions which ultimately affects:

- (a) **The topography**; including the soil and biodiversity of that area;
- (b) **Human lifestyle** and **demographics**.

The topography of any region takes precedence in this case, since only due to a **diverse and environmentally enriched area** can a nation possess a workforce which is healthy and **efficient**, which is a prerequisite for every developing country, so that the growth and development of that region can be spurred at a faster rate, leading to an increase in the **overall demographics**, in terms of the birth rate and death rate, which are important parameters in deciding how healthy a nation can be, which indirectly links back to the **economic boom of a nation**.

REASONS FOR THE DUMPING IN THIS REGION

We need to understand, what exactly gives the leverage to the organised syndicate criminal groups and western companies to indulge in such activities. Firstly, we need to understand, that most of the western African nations have a **weak political structure**, which accounts for a huge amount of instability in the region. The history of West Africa is a replete with a series of consistent conflicts. Most of the Western African states have seen civil wars like in Sierra Leone, Liberia, Guinea-Bissau, Ivory Coast, coups in states like Gambia, Niger, Guinea as well as ethnic and religious clashes in the nations of Benin, Nigeria, Mali; since gaining independence. As a consequence it is valid to state that **poverty, political despotism, corruption and foreign interference** have turned the dreams of a common African citizen into a distant and wide reality, which in turn has now become a nightmare. Moreover, especially the era after the Cold War, when most of the countries experienced destructive civil wars on their soil, which led to the **irrevocable and irreversible instability** in the region.

Thus, the quest for power of different social groups in these nations, especially Somalia, continues. With the urge to come to power, comes a need of resources, in order to be popular and win majority, citing the example of Pablo Escobar in this case, as to what he did in Columbia to win major popularity. When resources, come to play no one, on such a large scale bothers about the trade off. And, in this case the trade off being so large, especially the quality of life and development of their own nation has led to the negative consequences we are highlighting, Which sends out the narrative that *Economic prosperity of a few gains more importance over the life of people in that region*. Hence, leads to *concentration of economic wealth, in the hands of few* influential and diplomatic people, which essentially becomes problematic due to involvement of certain external elements in this scenario, them being the third parties, i.e. the organisations and nations involving themselves in such acts.

COMPOSITION OF THE WASTE

What does this waste include is a question of paramount importance. It is full of

- (a) Building/Construction waste
- (b) Radioactive waste
- (c) Hazardous waste including E-waste, industrial waste etc.

We need to understand the problem through a timeline, wherein the concentration of waste grew in the Western African region post the Industrial Revolution and the second world war, when especially the Capitalist world was involved in growing its base for *Weapons of Mass Destruction*, is when the amount of experiments increase which serve as a catalyst for more waste, hence more dumping and then the puppet rulers in the African region, gives us a clear analogy as to how and why is something so large in magnitude, impacting our environment and the foreign relations, built over a year.

IMPACTS OF THE DUMPING AND MOTIVE OF WESTERN NATIONS

All this is getting dumped in a coast, which is extremely rich in nutrients, leads to (a) Soil Degradation (b) Pollution of the underground water and the shallow seas. The consequences of this devastating act are not only causing harm and substantial loss of life quality to humans but also the surrounding biodiversity.

Impacts as to why topography plays an important role are simple; this aspect increases the propensity of the western countries using this area due to the rapid role of the geography as to a favorable location for dumping.

Also, since the western nations want to increase the amount of *faith and trust* in the world organisations that the dumping on their part in their own country is taken care of, these nations simply wish to use their money bag to buy these nations' political system so that they can simply use this as a better indicator of themselves to both (a) to the world organisations such as United Nations Environment Programme, because of which the overall credibility of their nation increase (b) the Nations to whom they pay a price for dumping by clearly making a vicious cycle of fake promises.

PAST INTERNATIONAL MEASURES

The Basel Convention on the Control of movement of Hazardous Wastes across boundaries and their Disposal as well has been very well laid out in the **Basel Convention** which is one, the most important steps taken in recent times towards the international regulation of hazardous waste. Also, we need to understand the efficacy of the Basel Convention to achieve **environmental justice for developing countries** by eliminating hazardous **waste exports from industrialised developed countries** to developing countries. We also need to examine the relationship between waste disposal and environmental justice and the motivation for exports of hazardous waste to developing countries. We also consider the international regulation of trans boundary movements of hazardous waste under the Basel Convention and its **inability to protect developing countries**. Also, we have taken into consideration, the steps which the international community has taken to impose a ban on the hazardous waste trade and the likely success of these measures in **eliminating hazardous waste exports to developing countries**.

CONCLUSION

Thus, due to the aforementioned reasons and impacts a **collaborative and comprehensive** approach on this issue of dumping needs to be taken, which in totality and actuality results in a decline in the overall wastage and drainage of environmentally growing regions, which shall **accrue long term benefits** to earth. Hence, the overall perspective of a body monitoring the working of waste disposal in this region and strict law formation by an international organization is the need of the hour so that substantial measures can be taken up.

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CARBON SEQUESTRATION

By Shreya Channani

B.Com(H)- VI Semester

In layman terms, carbon sequestration refers to the process of removing carbon from the atmosphere and depositing it in a reservoir. In other words, it is the long term storage of carbon-dioxide(CO₂) to mitigate global warming and avoid dangerous climate change. It has been proposed as a way to slow the atmospheric and marine accumulation of greenhouse gases. It thus includes carbon capture and storage which refers to a large scale permanent artificial capture of industrially produced CO₂ using

- Subsurface saline aquifers
- Reservoirs
- Ocean water
- Aging oil fields or other carbon sinks.

CARBON SINK

A carbon sink is anything that absorbs more carbon than it releases while a carbon source is anything that releases more carbon than it absorbs. Forests, soils, oceans and the atmosphere all store carbon and this carbon moves between them in a continuous cycle. This constant movement of carbon means that forests act as sources or sinks at different times.

Natural Sinks – oceans (largest on Earth), photosynthesis by plants

Artificial Sinks – landfills, carbon capture and storage proposals

Oceans are the largest active carbon sink on Earth, absorbing more than a quarter of carbon that humans put into air.

TERRESTRIAL CARBON SEQUESTRATION

Indirect sequestration whereby ecosystems e.g., forests, agricultural lands, wetlands etc. are maintained, enhanced or manipulated to increase their ability to store carbon.

GEOLOGIC CARBON SEQUESTRATION

It can be stored in oil reservoirs, gas reservoirs, unminable coal seams, saline formations and shale formations with high organic content. These have provided a natural storage for crude oil, natural gas, brine and CO₂ over a million of years. Geologic sequestration techniques would take advantage of these storage capacities.

OCEAN CARBON SEQUESTRATION

Oceans absorb, release and store large amount of CO₂ from the atmosphere. There are two approaches to this. One is to increase the productivity of ocean biological systems e.g., algae and the other is to inject CO₂ into the deep ocean.

SOIL CARBON AND CARBON SEQUESTRATION

Soil carbon refers to the carbon held within the soil, mainly as organic content. It is the largest terrestrial pool of carbon (around 2200 gigatonnes). Soil carbon thus plays a key role in carbon cycle and important in global climate models. The exchange of carbon between soils and the atmosphere is a very significant part of world carbon cycle. The soil is one of the largest reservoirs, where carbon could be restored.

FARMING PRACTICES THAT HELP CARBON SEQUESTRATION

- Mulching
- Zero tillage
- Crop rotation
- Strip cropping and contour building
- Switching from field to tree crops
- Rotational grazing and pasture management
- Intercropping
- Organic farming (mainly organic mulch)

DUMPING OF IRON

Dumping of iron to the upper ocean significantly induces carbon sequestration in oceans. Dumping of iron stimulates phytoplankton bloom. Like all plants, phytoplankton takes up CO₂ from air and convert it to carbohydrates. The plant quickly dies and starts sinking, taking the carbon with it. If the plant sinks well below the ocean surface, the carbon would effectively have been put away for a long period.

Under the hood - Riding the lithium peak

By Pranav Jawa

B.com(H)-VI Semester

In the age of wireless, portable gadgets, lithium batteries have become one of the commonly used power sources for devices ranging from mobile phones to implanted medical devices. They have longer lifespan and higher density than the alternatives, which makes it a perfect choice for electronic vehicle batteries which have to store charge for longer periods of time. The cost of producing a lithium-ion battery has come down 14 percent per year since 2007 and 6-9% reduction in price for every doubling of production volume is expected till 2020.^[1] As market demand grows, enhanced exploration techniques and increased investment will lead to a net increase in lithium reserves. But as with all finite resources, there will be a peak in production at some point.

With the current number of Electronic Vehicles (EVs) estimated to be upwards of 1.2 million units across the globe in 2018, concerning questions about the global supply of lithium have surfaced. The U.S. Geological Survey (USGS) stated an estimate of lithium in early 2015, estimating that the world has enough known reserves for about 365 years of current global production of about 37,000 tons per year.^[2] Although the image portrayed by the USGS is comforting, a huge boom in the usage of lithium is expected if humans are to shift from fossil fuels to renewable sources for all their energy requirements, which will lead to a massive demand for lithium. China and India are the major concerns which will have to be considered when scaling up of EVs is discussed. China already has about half the number of cars as the U.S., despite the fact that it is far less economically developed, due to its population being four times that of the U.S.

Figure 1: USGS Mining and Reserves Data (Metric Tons)

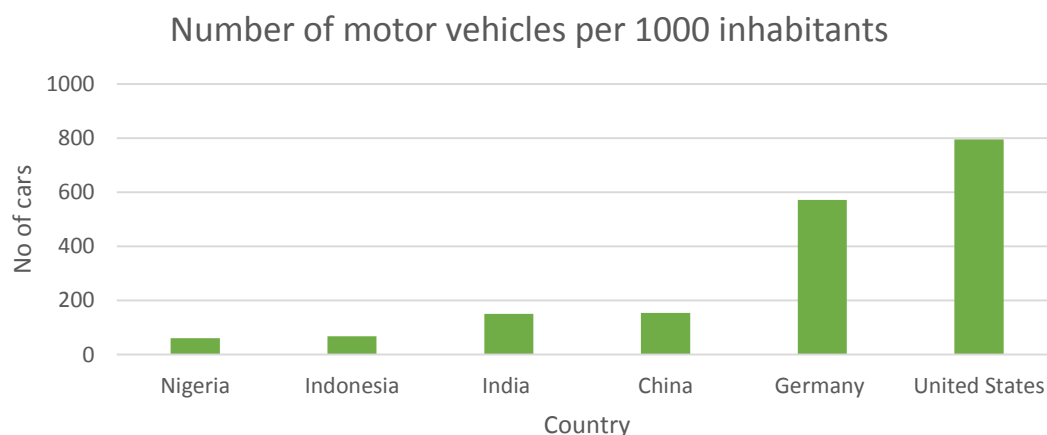
Country	2013 production	2014 production	Reserves
United States	870	NA	38,000
Argentina	2,500	2,900	850,000
Australia	12,700	13,000	1,500,000
Brazil	400	400	48,000
Chile	11,200	12,900	7,500,000
China	4,700	5,000	3,500,000
Portugal	570	570	60,000
Zimbabwe	1,000	1,000	23,000
Totals	33,940	35,770	13,519,000

^[1] (<https://www.nature.com/articles/nclimate2564>)

^[2] (<https://minerals.usgs.gov/minerals/pubs/commodity/lithium/mcs-2015-lithi.pdf>)

India has been catching up and rates of car ownership are almost equivalent to China^[1]. The problem which may occur is that the developing world pushes *en masse* for personal car ownership for all the privileges that it brings. Alternatives to passenger cars need to be introduced if the conundrum of the developing world racing to become more like the developed world is to be solved without a major shortage of resources.

Figure 2: Car ownership per capita



The threat of reaching a peak has shifted the focus towards ensuring the continuous supply of materials needed for the green revolution through reuse and recycling of batteries. Recycling of Li-ion has become a crucial topic in the automotive industry, due to majority of the batteries in EVs being made of lithium.

Recycling of Li-ion batteries is expected to be one of the main sources of lithium supply in the coming future. It is also expected to be one of the means to hedge against the uncertain and potential price fluctuations arising due to geo-political or other barriers. Unlike oil, where the volatile price fluctuations will lead to increase in only the running costs, potential price fluctuations of lithium would impact the total purchase price of the car.

While lithium is 100% recyclable, currently the economic incentives to recycle do not add up. Recycled lithium is only used for non-automotive purposes, such as construction, or sold in the open-markets. However, with the increasing number of EVs entering the market in the future and with a significant supply crunch, recycling is expected to be an important factor for consideration in effective material supply for battery production.

Closed loop recycling, where the recycled materials are sold back to Original Equipment Manufacturers, is likely to help against potential price fluctuation of metals or compounds. Projects are currently underway in Europe, the United States and Japan to develop effective and feasible recycling technologies with a complete life cycle analysis of recycling.

[1] (https://en.wikipedia.org/wiki/List_of_countries_by_vehicles_per_capita)

As the world starts moving towards renewable forms of energy, innovation and experimentation is now becoming necessary to solve issues which we may face while transitioning from fossil fuels to wind, solar and geothermal sources. One of the main problems which we may face is the storage of energy produced. **To reach mass adoption levels, we need to ensure that resources like lithium are utilized to their maximum extent and also develop new technologies to ensure that our energy requirements are met seamlessly.**

Marvels of Meghalaya

By Dr. Kanu Jain

(Assistant Professor, SRCC)

I am lucky to travel and explore various places in India in the past few years. And whenever I visit a place, I have this urge to know about the people of that place, their lifestyle, their culture and eco-friendly practices they follow. I develop this child-like curiosity to know about every new thing. In the summer of 2015, I visited a slice of paradise 'Meghalaya' situated in the remote north-east region of India. I remember learning about Cherrapunji being the wettest place on earth in my geography books as it receives maximum rainfall. But over a period of time, Mawsynram, which exist in Meghalaya itself, replaced Cherrapunji.

Meghalaya stayed true to its name and was full of mist and clouds which gave a dream like feeling. Its natural beauty alongwith lush green meadows, numerous and magnificent waterfalls, long and intriguing caves, everything was overwhelming. The locals of Meghalaya very well know how to create harmony between nature and human needs. The eco-friendly practices followed by them are unparalleled. Despite being an area which receives highest rainfall, people of Meghalaya don't use umbrella but an indigenous product called 'knup' made of bamboo and palm leaves. It covers the whole body and resembles the shell of the tortoise. They don't use plastic dustbins. Instead, they use beautiful bamboo dustbins which are cheap and eco-friendly.



Meghalaya also has the glory of having the Asia's cleanest village 'Mawlynnong'. It is also popular by the name of 'God's own garden'. Locals of this village truly believe in the concept of 'cleanliness is next to godliness'. They say that they have inherited the practice of keeping the village clean from their ancestors as they consider it equivalent to praying god. Different families of the village clean the streets regularly.

Mawphlang sacred grove is another jewel in Meghalaya. It is a dense forest spread across 78 hectares of land. One can experience the change in temperature as one enters it. It is bestowed with diverse flora and fauna. It was astonishing to see the tree of *rudraksh* and cobra lily.

Cobra lily resembles snake's hood. The guides here say that it is forbidden to take anything outside the forest and harm the forest as it may result in the curse from the keepers of the forest who are said to inhabit and safeguard it. There are several folk tales around it to instill the fear in the wrong-doers. It's a beautiful way to conserve a forest to maintain the ecology of the place.

The houses near the sacred forest are made of bamboo and mud. They cook their food on wooden *chulha*. Interestingly, they use a wooden apparatus hanging to the ceiling above the *chulha* having two levels. On level 1, just above the *chulha*, wet logs of wood are placed so that the heat generated while cooking can be used to dry the logs. And on level 2, the semi-dried logs are placed to further dry them. The locals here clearly know the value of conserving and using energy efficiently.

Living root bridges are unique to Meghalaya and a visit to Nongriat village, a thick tropical forest generally cloaked with rain, is a 'trekkers' paradise'. An arduous trekking of about 3500 steps with breathtaking views, crossing crystal clear streams of water using beautiful suspension bridges, one can witness the picturesque 'double decker living root bridge'. It is an incredible experience. It is a marvel of bio- engineering by the *Khasi* tribe of Meghalaya. They are made by the locals to cross the water streams and rivers using the roots of the rubber trees. It takes around 15-20 years for a bridge to be grown, not made. And as the roots grow, they are being given direction to create the shape of a bridge which becomes stronger with age. The life span of a living roots bridge is approximately 150-200 years.

There is a lot to learn from these places which are not so called 'modern' according to societal standards but they hold the key to our future survival as the locals here know how to strike a balance between the needs of the people and nature. In the words of Prof. Anil Gupta, IIM-A, **'people on the margin don't have marginal minds'**.



ORDINARY PEOPLE – EXTRAORDINARY CHANGES.

By Thanush Aadithya Sakthivel

B.Com(H)-II Semester

The journey of growth starts with a seed,
Seeds which sustains through to germinate,
Germination which travels the path of fighting the odds,
Results as trees,
Trees of hope, desire, and true inspiration.

When it comes to environmental action, there are a lot of such unsung inspirations all around us. The onus is on us to recognize, appreciate and reiterate their efforts until we imbibe them in our own actions. Let us see the story of some of the common people who have created a massive impact caring for the environment by planting as many trees as they could.

ISHA BLOKHRA

“Children are born naturalists! They explore the world with all of their senses, experiment in the environment, and communicate their discoveries to those around them.”

Isha Blokhra proves it right, this 7-year-old girl from the US travelled to India to plant **750 trees** and spread the message of environmental concern through her action. This little girl decided to celebrate her birthday by planting trees, a choice that provoked the entire family who decided to celebrate life on Earth and came up with a plan of planting a tree for each year that they had missed doing so, with a total being 750 trees.

“On your birthday, you are actually celebrating living one more year on planet Earth. So what can we do to thank the planet? Let’s grow a tree. My teachers told me that one tree gives oxygen to six people for life,” Isha had told her father, Raakesh.

They had headed to India to celebrate the 50th wedding anniversary of Isha’s grandparents in June and decided on flagging off their plantation drive from here. Then they collaborated with singer Daler Mehndi through Facebook, whose Green Drive initiative has planted over 800,000 trees in the Delhi-NCR region since 1998. Their initiative kicked off by planting around 250 saplings in Delhi Coupling with Daler Mehndi Green Drive.

The green drive has been named the IDO drive or the **Isha Daler Oxygenate Drive**. Isha at this tender age has not just achieved planting 750 saplings but also has she seeded within us the hope for a better tomorrow.

YOGANATHAN

Yoganathan, a bus conductor working for the Tamil Nadu State Road Transport Corporation (TNSTC) has gone beyond his line of duty and planted over 1 lakh trees. Having witnessed trees being smuggled out of Nilgiris ignited the spark in me to work for conserving the environment and protect the beauty of Nilgiris that he had enjoyed during his childhood.

Yoganathan, who is a regular on the Marudhamalai-Gandhipuram number 70 bus in the city of Coimbatore, has spent 28 years single-handedly planting trees across 32 Tamil Nadu districts to protect wildlife and to raise awareness among youth about the importance of environmental conservation. When he is not planting trees or working to conserve the natural habitat of wildlife, Yoganathan works with local schools and colleges, educating the students on protecting trees and the dangers of tree felling. So far, he has visited over 3,000 schools across the state to organize plantation drives and environmental awareness programmes and ensure that each sapling planted by a child is given the child's name. It is claimed that he puts 40% of his monthly salary towards buying saplings and educating children.

Apart from the above mentioned too many others have done applaudable efforts to plant as many trees as they could. Some of them are:

- Jadav 'Molai' Payeng, the forest man from Assam who has created 1,360 acres of Jungle called Molai Forest
- Kapil Sharma, a software engineer, the green crusader for Bengaluru has planted over 35,000 saplings.
- Shyam Kumar, an autorickshaw driver whose efforts have led people to plant 23,000 trees around his village of Thenkurrisi.
- Shyam Sundar Jyani, an associate professor of the Government Dungar College campus, Bikaner who through his initiatives has planted over 6,25,000 saplings across 15 to 20 Gram Panchayats in over 2,500 villages.
- Radhika Anand, an environmentalist, 53-year-old resident of Delhi planted over 1,10,000 fruit trees.

The efforts of these ordinary people have led to extraordinary positive changes in the environment and has also served as inspiration for us. Let us all join hands towards a cleaner tomorrow following their footsteps.

The activist is not the man who says the river is dirty. The activist is the man who cleans up the river. - Ross Perot



Nature and Me



Heaven over my Head By- Satyakam Gupta (Senior Assistant,. SRCC)

Reconnecting with the Mother Nature in the cities always seems to be impossible in today's world. However, I live with the Mother Nature around me. Surprised!!! Let me show you.



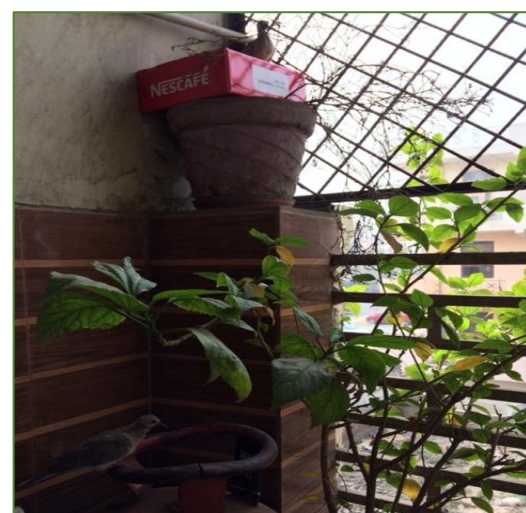
An Attempt to conserve a bird species in an artificial microhabitat
By: Dr. Gaurav Sharma
(Assistant Professor, SRCC)

People are migrating to cities in the hope of quality of life while common bird species such as sparrow, laughing dove, ring dove, myna etc. are reversing migration from noisy cities to peaceful habitats. There are number of factors responsible for this trend such as excessive use of glass in modern day buildings which does not allow the small birds to make their nest, noise pollution which affects their reproductive and feeding behaviour, lesser number of foraging (feeding) sites and electromagnetic radiation from mobile towers resulting into premature hatching of eggs.

In such a gloomy situation also, we can carry out some positive efforts to conserve and protect our small bird's species. In this direction, at a personal level I successfully attempted for the conservation and protection of one such bird species, commonly called Laughing Dove or faakhta (in Hindi).

I put a cardboard box with some cotton pieces (to provide cushioning to the future hatchlings) in my balcony. After one week a pair of laughing dove started hovering in and around balcony in due course of time with some apprehensions female dove laid two eggs into the box. In a period of fifteen days two hatchlings hatched from eggs. Hatchlings were very weak with a covering of soft hair like feathers. In a short period of fifteen to twenty days they became juveniles. These juveniles tried to fly and after few unsuccessful attempts were able to fly successfully. Eventually, a day came, when they left my balcony to the world of promising and unlimited possibilities.

I am continuing this drive to help these beautiful creatures to survive and flourish. Till date five breeding cycles have been successfully completed and around ten individuals of laughing dove being added into the declining population of this little species from my small balcony of flat.



My Journey Into The Woods
By Pallavi Singh
(Naturalist, Binsar Forest Retreat)

Fifteen years back I was working as a programmer in a software services company. Great work environment, a good paycheck, a lovely apartment in a great city – I had everything going for me. Weekends would be movies, malls, restaurants and catching up with friends. It was a good life. But Sunday evenings were depressing. And I couldn't figure out why. There was something not quite right. Something that was not working. I would often dream of getting out of this very mechanical life....and experience the "real" life. But what could I do? I was a software engineer and the only skill I had was programming. Would I be happy as a teacher? An artist? A traveler? A writer? A restaurateur? A designer? And what about money? Would I be able to earn enough to sustain myself if I chose any of these "alternate" career choices? These questions hounded me and there was no easy answer. My work would sometimes spill over the weekend, and on weekends too I would sometimes find myself at my desk, working. And then one fine day it struck me, as long as I continue to be a part of this system, as long as I let the status quo go on, I will never find an answer. What I need to do is to shake off the inertia, get out of my comfort zone. This thought was electrifying and liberating and terrifying at the same time. Stepping out into the unknown, leaving a familiar comfortable world behind was scary. But I also knew that if I did not act now, inertia will take the better of me. I submitted my resignation.

And I surprised many. Including close family and friends. Some thought I was rash and impulsive. Others couldn't figure out why I did what I did. They were all clueless. And so was I.

It took me a while to get used to this new life where I wasn't rushing to work in the mornings anymore. I slept. I read. I watched TV. After a while I got bored of doing nothing and one afternoon in desperation I searched the net for some volunteering work that I could do. Out of the many things that popped up, what caught my attention was a post calling out for volunteers for a wildlife survey camp in Tadoba Andhari Tiger Reserve in Maharashtra. I got in touch with the folks and pursued them over email and phone to let me attend this forest camp. They were, quite frustratingly, unwilling to take women as volunteers. That made me pursue them even more and finally after getting pestered so much, they agreed. I set out for the camp. This was fifteen years back. I had never traveled alone to places in rural India, let alone a tiger reserve, all by myself. I was very apprehensive. It was late evening when I reached the camp deep inside the forest. What happened over the next seven days changed my life completely and gave it a completely different direction. Walking in the forest morning and evening, looking out for animals and observing various signs on the forest floor and looking at the trees opened a completely different world for me. It was as if I had found new eyes and I was able to see and experience so much more of this wonderful natural world. By the time the camp was over there was no doubt in my mind that if there is anything I want to do, it has to be something related to nature, wildlife and conservation.

Once I knew what my true calling in life was, pursuing it further was not very difficult. I got in touch with the organisation that had organised the survey. Luckily they were in the same city as I and I started volunteering with them and later working with them. There I learnt what a wonderful natural world it is and how everything in nature is so beautifully interconnected. I also learnt how fragile this beautiful balance of nature is, and how important it is to protect and conserve it, for our own survival. I was looking at tiger pictures caught in camera traps and analysing data coming from various field sites, estimating tiger numbers and their prey base. It was exhilarating. Even though I was earning far less than what my earlier job was paying me, for the first time, I was looking forward to going to work every morning. Sunday evenings were not depressing anymore.

A few years later, my husband and I, along with our four year daughter moved to a small place within a beautiful forest of oak and rhododendron trees. We now run a small home-stay here. We are home-schooling our daughter and she seems perfectly happy living in a place surrounded by a thick forest, immense natural beauty with views of snow covered peaks to the north. Away from the mad rush and stresses of city life, this place is an oasis of peace and calm. Surrounded by thick forests, there are many birds and animals that give us company. We observe the seasons change, and how the forest and birds respond to these changes. I love to walk in this forest and observe the plants and animals that I see around. I am trying to identify and document the various species of flora and fauna that is found here. I am also trying to grow a native garden with native species of trees and plants within the retreat. Conservation begins with knowledge and exposure, and if you don't know what you have, how can you think of conserving it. Many people visit us, and my aim is that even if a few of them return back with a wonder for nature and natural spaces, a spark would have lit in their minds which would carry the message conservation, love and respect for nature forward. My life is very different from how it was fifteen years back when I was living in a city and working in an IT company. It is so much more beautiful and peaceful. It is important to change into the slow lane sometimes. Now when I look back and see what I wanted to be when I was in my early teens, I recall that at one time I wanted to be an officer in the Indian Forest Services. Well, I am not an IFS officer now, but I am living my childhood dream of living in a forest, a dream that I had forgotten in the rut of becoming an engineer and following a regular career path.

Journey so Far.....



On the occasion of World Ozone Day (16 September,2017) a model of the Earth was displayed to generate awareness among the students. The model was displayed near Office area of the college. Also, various videos and presentations were displayed on the college TV screens showing the threat of Ozone Hole.

The students of CGI had organized a signature campaign on the occasion of Diwali to check the cracker bursting activity. The students and Faculty members enthusiastically participated in the campaign and pledged to celebrate a pollution free Diwali.



Fulfilling their commitments to imbibe environmental values and awareness, the students of CGI screened a documentary to celebrate the efforts of Jadav Payeng Popularly known as 'Forest Man of India'. The screening was followed by an interactive session between Faculty members and students. On the occasion, Dr. Racha Jawa (Convener, CGI) encouraged students to plant more trees and adopt eco friendly practices at their homes.

Advocating the need of waste management and safe waste disposal, CGI organized an E-waste collection drive to collect and effectively dispose the E waste from various stakeholders. The drive was launched on January 25,2018 till February 5,2018 and successfully generated awareness and disposed E waste according to Waste Management Rules(2016).



Centre for Green Initiatives-The Organization

As a proactive institution concerned with the conservation of the environment, the Centre for Green Initiatives was established in the College with the objective of generating awareness and promoting environmental care at both individual and community level. The Centre aims to create a pervasive atmosphere facilitating conversation, action and feedback on environmental issues engaging faculty, students and the general public.

Our Objectives

- ❖ Understanding various environmental issues and the need to address them
- ❖ Sensitizing people about the need for protection of environment for a sustainable and healthy future
- ❖ Undertaking technological setup aimed at an environmentally and economically strong impact.

The Centre operates in four distinct units to help serve the multifaceted issues pertaining to environment:

•**Energy Conservation Cell**- For better management of energy and recommendation of safe energy practices.

•**Water Conservation Cell**- For conservation of water resources and recommendation of water conserving practices and technology.

•**Waste Management Cell**- For recommendation of scientific management of waste and its disposal

At the Institutional Level

At this level, the Centre looks at the macro-environmental perspective in the college and the society.

Here, we nurture the environment as an institution with greener vision for the future. Our

organizational structure consists of faculty members and representatives from non-teaching staff.

Dr. Rachna Jawa	Convener
Dr. Nawang Gialchhen	Member Co-convener (Energy & Water Conservation Cell)
Dr. Kanu Jain	Member Co-Convener (Waste management Cell)
Ms. Vartika Khandelwal	Member Co-Convener (Botanical Cell)
Dr. Gaurav Sharma	Faculty Member
Mr. Harish Kumar	Faculty Member
Mr. Harvinder	Faculty Member



Centre for Green Initiatives

Team 2017-2018

Chairperson

Prof. Simrit Kaur
(Principal, SRCC)

Convenor

Dr. Rachna Jawa
(Associate Professor, SRCC)

Administrative Members

Mr. Shiv Nandan (Sr. P.A. to the Principal), Mr. Jatin Lamba (Administrative Officer), Mr. P.K. Jain (Accounts Officer), Mr. Satyakam Gupta (Caretaker)

Our Student Members

Cabinet

Shubham Siwach (Head Operations), Shivangi Jaiswal (Head Creative Team)

Executive Members

Vishav Garg, Priyanka Maurya, Bablu, Mohan Bhandaru, Sonali Jawa, Ghazal Abdullah, Poornima Neeruganti, Apoorva Jain, Swati Goswami, Krishna, Pranav, Shreya Channani, Thanush A,



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