E-MAGAZINE

2017-2018

MILIEU

PRESENTED BY-

THE DEPARTMENT OF GEOGRAPHY

SHYAMA PRASAD MUKHERJI COLLEGE,

UNIVERSITY OF DELHI

Message from the Editor

It gives me great pleasure to bring out the 1st edition of Department of Geography E-Magazine, ***"MILIEU".*** *After much deliberation we decided to focus on an interdisciplinary theme,* ***THE CHANGE INDIA NEEDS****.*

World is rapidly changing. Environment, both physical and human is experiencing a transformation. We all need to participate in making this transformation smooth and sustainable. So, we thought we would encourage students and teachers to write about what they feel and see and need to do in their surroundings. Our articles focus on some of the important issues making news today. We have highlighted on our achievements and good practices which can be emulated and our failures from which we need to learn. We have also continuously reiterated in all the articles the need for community participation to bring about the much needed change.

I would like to express my gratitude to our Officiating Principal Dr. Sadhna Sharma and Ex-Officiating Principal Dr. Nita N. Kumar for their support and encouragement. I would also like to thank our Teacher- in- charge Dr. Rachna Dua for her continuous guidance.

I also thank the editorial team and students for their contribution in making this magazine.

I hope you enjoy reading the magazine.

Ms. Anuradha Shankar
Editor

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Message from Dr. Sadhna Sharma, Officiating Principal, SPM College

It gives me immense pleasure to pen a few words as prologue to the E- Magazine of, Department of Geography, on an inter-disciplinary theme, The Change India Needs.

I congratulate all the contributors and editorial board for taking such a creative and innovative initiative. The main theme has covered the topics which are very relevant in present circumstances. Today, we are concerned about environmental issues and in the first edition of the magazine all these issues are addressed in a very effective way. I hope it will create awareness among the students and society.

My best wishes to the Department of Geography for the successful launch of this E-Magazine.

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Message from Dr. Nita N Kumar, Ex- Officiating Principal, SPM College

I am very pleased with the initiative of the Geography Department to bring out an interdisciplinary E-Magazine, Milieu. The theme of the magazine, The Change India Needs, is an evergreen topic, but particularly relevant now, for change is indeed crucial to India's growth.

I also appreciate the fact that the department chose to bring out an interdisciplinary magazine, opening it up to all the students of the college. It is a great opportunity for our students to explore their ideas and learn the skills of writing and publishing articles. An in-house magazine is a friendly platform where budding writers can get hands-on practice of writing in different formats and polishing their proof-reading skills.

I would like to thank Dr. Rachna Dua and her editorial team for this enterprise. I am witness to Dr. Dua's efforts in turning this idea into reality. It is her strong desire and persistent efforts that have made it possible for this e-magazine to be published and I congratulate her on her success.

My best wishes to the Department of Geography and to this venture. May both grow in the times to come! I look forward to reading the magazine.

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From the Faculty

TIME TO REFRESH OUR PLEDGE

This is the time in our national evolution when we must rethink the need to refurbish our institutions with new ideas. An India where rational, humane and open minded ideas exist must develop. We must work to create a world in which we Indians can prosper and progress in a safe and secure environment.

From a nation that had once been amongst the world richest, and which as late as 1820s accounted for 23% of global GDP, we had been reduced by 1947 into one of the poorest, backward, illiterate societies in the world. The India of the second decade of 21st century has made significant strides from the newly independent India of the 1950s. Since 1947 it has raised literacy from 16% to 74%, reduced child mortality and increased life expectancy from 26 to 72 and raised the rate of growth of Indian economy from less than 1% to more than 8%, while reducing the percentage of population living below poverty line from some 90% to around 30%. Foreign direct investment in India is illustrative of our changing orientation to the world. Impressive as our achievements are, are they enough? A lot more needs to be done.

Young Indians today – unlike those of my generation might well work for an internationally – oriented company, have clients, colleagues or investors from around the globe; increasingly they are likely to holiday in far flung destinations. The world into which they will grow will be full of such opportunities. At the same time today's youth may also find themselves vulnerable to threats from beyond India's borders, terrorism, counterfeiters of currency, drug smugglers, woman and child traffickers, internet hackers , credit card crooks, false sages and illnesses like swine flu (imported one) , Dengue etc. Inflation, price rise, farmer suicides, lack of affordable educational facilities and unemployment are just a few of the problems that plague India.

Each and every one who's right now living in India or even visiting it for the first time should feel safe. Be it a girl travelling late at night, a man having coffee at a cafe, a tourist visiting a historical monument, a family out for a picnic, a child going to school, an old lady crossing the road, all of them should feel safe.

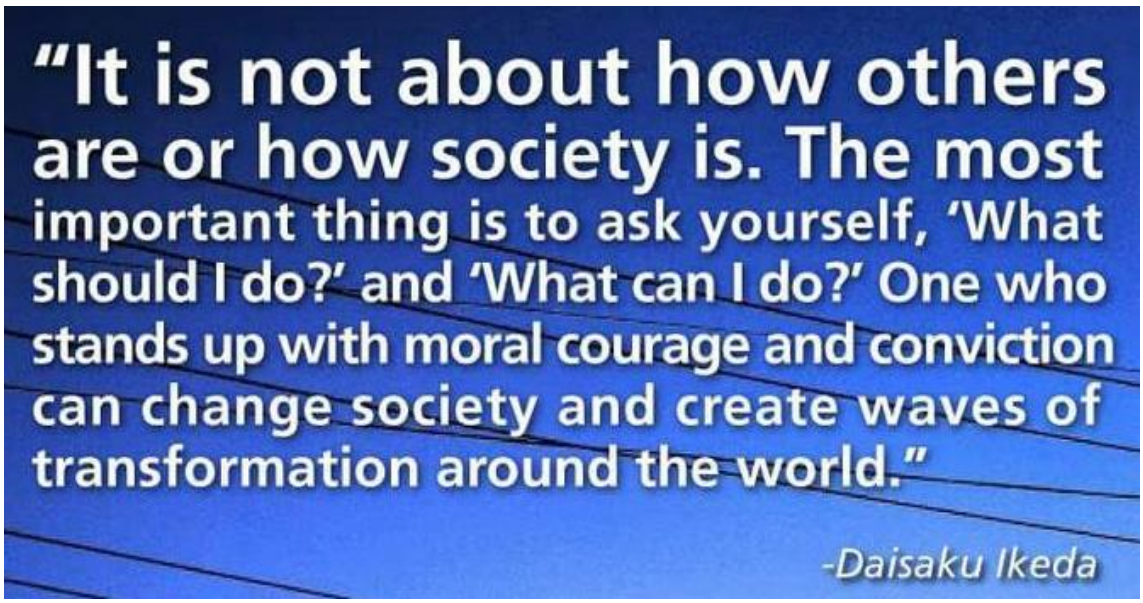
The responsibility of a democratic, pluralistic society is to advocate for policies that generate more opportunities for everybody- policies that strengthen people across classes, and give everyone a fair shot in life. We all have individual goals: we worry about our future, our careers, and our children. But if we don't think more about the greater social good, about the people outside our homes and on our streets, we are displaying a great poverty, in our vision and our goals.

I would like to see the change in the mind-sets and break away from the stereotype; it is time for a new vision, new faces, new hope and new politics to take India forward. Our

youth is looking for accountability and transparency from those in government, but all they get in return is silence.

Engagement with the youth, inviting new ideas and giving them a platform to raise their voice should be the priority. India's young population, in whose hands the baton lies now, needs to channelize its energies. It is very important to support, encourage and watch out for each other.

Most importantly and above all, I quote:



Dr. Rachna Dua
Associate Professor
Department of Geography
SPM College

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Air Pollution- A Growing Menace

Air pollution is the presence of foreign material in the air, natural or manmade, which has harmful effect on the environment. It has become a menace, especially in the recent years, as it is growing at a rate which is faster than what nature can process, posing a serious threat to the general wellbeing of the planet.

The sources of air pollution are both natural and man-made, for example, dust storms, and forest fires, ash from volcanoes, explosion, deforestation, constructional activities, transportation and urbanization etc. Air pollution is also indoor and outdoor pollution, with indoor pollution being as bad, if not more than outside pollution. It varies between rural and urban areas and between developed and developing nations. Pollution is becoming a serious risk as it is related to diseases and health conditions including respiratory infections, heart diseases, and stroke and lung cancer. Statistics highlight that the effects of rising air pollution is increasing making everyone susceptible. However, it is children aged less than five years in developing countries who are the most vulnerable.

CASE STUDY- NEW DELHI

"New Delhi's quality of air is among the world's worst." The air in the city is the worst in the world, according to a WHO (2016). Earlier, a report by a Yale University research team (2014) showed that India ranked 174 of 178 countries in air quality. The World Health Organization (2014) estimated that every year, air pollution causes death of some 7 million people worldwide. India has the highest death rate due to air pollution and also has more deaths from asthma than any other nation according to them.

Documenting the sources of pollution NEERI has categorized the sources of pollution in three categories and identified types of source with it. These are the problems which exist within the city but there are issues which go beyond the borders. For example, In October- November, Delhi faced the brunt of straw (crop residue) burning from the surrounding states. The pollution levels were an all-time high.

Source Category	Types of Sources
Area Sources	• Domestic cooking • Bakeries • Crematoria • Hotels & Restaurants • Open eat outs • Open burning (refuse/biomass/tyre etc. burning) • Paved & unpaved roads • Construction/Demolition/Alteration activities for buildings, • roads, flyovers • Waste Incinerators • DG Sets
Point Sources	• Large scale industries and Power plants • Medium scale industries • Small scale industries (36 industrial estates)
Line Sources	• 2 Wheelers (Scooters, Motor Cycles, Mopeds) • 3 Wheelers (CNG) • 4 Wheelers (Gasoline, Diesel, CNG) • LCVs (Light Commercial Vehicles) • Trucks (Trucks, min-trucks, multi-axle trucks) • Buses (Diesel, CNG)

In a city which growing rapidly it is high time that serious and strict measures are taken to solve this issue or else the situation is going to worsen.

MEASURES ADOPTED- Government has adopted several measures to tackle this problem arising out of both point and non-point sources of pollution.

Last year, the Delhi government introduced the innovative odd-even car scheme for period of 15 days. It did dramatically reduce the traffic congestion but was unable to bring down pollution levels significantly. Commenting on the drive, Sunita Narayan, CSE said that much

needs to be done and spoke against the exemptions to the two-wheelers. She said that there is a need to add more stringent steps, like congestion charges, parking fee and others to bend the pollution curve and ensure clean air targets are met throughout the year.

Since, pollution also stems from the neighbouring states the Central Pollution Control Board (CPCB) has issued directions to the governments of Punjab, Haryana, Uttar Pradesh and Rajasthan to immediately begin taking steps against "visibly polluting vehicles", overloaded vehicles and open burning of biomass, leaves, tyres and other such items. Something also needs to be done about the smoke generating brick- kilns around the city.

Some initiatives which need further emphasis-

- Paving all roads well to curb dust. What is perhaps needed is to show zero tolerance to civic agencies leaving exposed mud after executing projects.
- Covering all open spaces with a green cover. This will not only add greenery in the city but also check dust in the air.
- Augmenting transportation services. If mass transport system is increased and its efficiency enhanced a large number of commuters can be influenced to use it rather than commute through private vehicles. This would improve travel time on road and help reduce air pollution.
- Besides this all vehicles need to comply with latest technological specifications. All heavy vehicles need to be checked for pollution and not allowed to enter city limits if they are not city bound. The number of new vehicles added on the road also needs to be checked. According to experts congestion charges may be levied and parking fees increased.
- A complete ban on burning of waste. This needs to be strictly implemented as these small and diffused acts together have become a grave problem. Strict actions need to be taken against those found guilty.
- Working hours may be staggered so as to spread the traffic rush over the day.
- Power plants need to check their emissions. Pollution abatement equipment needs to be installed. A Greenpeace report says that if power plants within 300km around Delhi would control their emissions it would make a significant difference in the air pollution levels in Delhi.
- Use of coal need to be reduced.
- Large number of monitoring stations needs to be developed.

The challenge for all urban areas in India is to manage the growing tension between development and environmental concerns. There are several steps and measures that are being taken and can be taken in order to improve the air quality. But it requires a concerted effort from its citizens and the government.

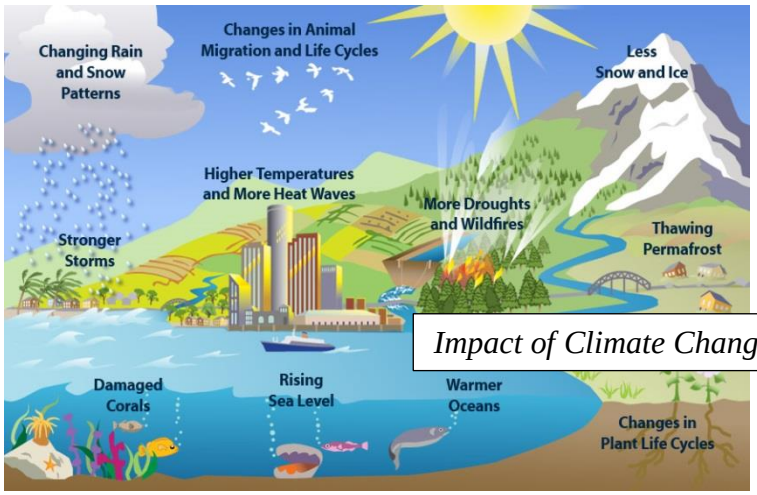
It involves making citizens take responsibility for their actions and participate in pollution controlling measures. Also it requires a political will to go beyond stopgap emergency measures and launch the policies that are desperately needed to safeguard the public interest.

Shivani (Roll No. 628)
B.A. Programme, 2nd year

Climate Change

Climate Change is a serious global environmental concern. It is one of several complex challenges being faced by the world today. It is primarily caused by the building up of Green House Gases (GHG) in the atmosphere due to increased use of fossil fuel, change in land use and economic activities. It is being documented through increase in the average temperature of the air near earth's surface and ocean in recent decades, change in rainfall pattern, rising sea level, receding glaciers etc. Climate change is impacting the natural ecosystems and is affecting its productivity worldwide.

India is vulnerable to climate change. It has a large population living in poverty, large numbers still dependent on agriculture as their livelihood, inadequate infrastructure and a planning process which is striving hard to find solutions. "According to the Indian Meteorological Department (IMD), in line with rising temperatures across the globe, all India mean temperature have risen nearly 0.60 degree Celsius over the last 110 years. Further IMD studies have highlighted that extreme events like heat waves have risen in the last 30 years."



Impact of Climate Change

If these trends continue it would impact

- Agriculture which is largely dependent on monsoon, which are irregular.
- Availability of water, as the Himalayan glaciers which are the source of major rivers and groundwater recharge are thinning rapidly.
- Coastline which faces the threat of erosion and submergence.
- Incidences of floods and droughts due increased variability in rainfall etc. These in turn will impact India's food and water security and affect its efforts of sustainable development.

Many initiatives have been taken by government of India to address the issue. These include taking account of existing resources- water, forest, coastal areas, agriculture and health, identifying areas of vulnerabilities, assessing them and help find solutions. Climate change has been included directly and indirectly in almost all the action plans of the government. Some of which are- National Environment Policy, 2006, The National Action Plan on Climate Change, 2008, Parliamentary Forum on Global Warming and Climate Change, 2008, Climate Change Action Programme, 2011and several others. Besides these several other projects have been taken up under various Five year plans involving multiple stakeholders at all the levels.

India is also playing an important role in various international initiatives. India joined the Paris Agreement in December, 2015 and pledged to put a curb on global CO2 emissions to check rising temperatures. It aims at reducing its dependability on fossil fuels for generating electricity and increase forest area both in terms of its extent and the quality of the cover.

What is perhaps needed, besides, all these efforts is revival of indigenous practices which would help cope and adapt ourselves to the changing conditions. For example, in north western part of the country people have their own coping techniques like, roof rain water harvesting, construction of 'Johads', 'baolis' etc. for storing surplus water, cultivating crops which require less water or dry farming, rearing animals which require less water, construction of houses with materials such as sandstone and limestone which keep the dwellings cool etc.

So, the need of the hour is

- To integrate indigenous practices with formal strategies.
- To ensure participation of every nation in the mitigation strategies as its impact is trans- boundary.
- To create awareness and train the policy makers.
- To include every individual in formulating environment related policies and mitigation practices.

Where are we heading?

"We will respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations."

Barack Obama

It's a collective endeavour, its collective accountability and it may not be too late.

Christine Lagarde
IMF

GLOBAL WARMING ISN'T A PREDICTION. IT IS HAPPENING

Cheena (Roll. No. 601)
B.A. Programme
2nd year

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Fighting discrimination for holistic development

INDIA is a land of traditions, customs and rituals. It is a religious nation which believes in Lakshmi: the Goddess of wealth, Saraswati: the Goddess of education and Durga: the killer of evil. In India, on one hand, a girl child is considered as a reincarnation of Goddess but on other she is ill-treated, exploited and discriminated against.

This evil act of discrimination begins right from the moment a girl child comes into this world. The birth of a baby boy is celebrated whereas the birth of a baby girl is considered to be a liability on the family. She often suffers from poor health care, shorter breastfed period, less visits to doctors and thus remains undernourished. She is not sent to school and thus remains unaware of the opportunities that are available for her. She is not given independence to think or express herself and thus remains silent recipient of whatever is given to her.

Because of continuous preference for boys in our society, the child sex ratio in India has dropped to 914 females against 1,000 males, one of the lowest since independence, according to Census of India 2011. There are multiple socio-economic factors behind this. Although it has been declared illegal, medical technology is being misused in India for detecting the sex of unborn child, leading to female foeticide and abortions.

Experts often argue that a woman's education is the key to reducing discrimination against girls. However, a female child is often deprived from her right to education. A recent World Bank study says that educating girls is not charity, it is good economics. If the country has to develop it will have to include the other half of its population in a meaningful and a productive way. If women are left behind the society will not progress. Even if the girls are sent to school, the number of them dropping out from the school far exceeds the boys for various reasons. One of these is that a girl is expected to help at home, either with the household chores or with taking care of her younger siblings. Also there is a lack of education infrastructure even today. Because girls security is of immense concern it frightens and discourages the parents from sending their daughters to far away schools.

Women face the burden of dowry and domestic violence. Though, many laws have been made regarding these issues but the cheap mentality of people, the improper functioning of the judiciary and the delay in the decision making has led India to be in the top 5 most dangerous and unsafe nation for its women citizen, as reported by the United Nations, Department of Economics and Social Affairs (UN-DESA).

Besides all this, a woman is also discriminated in the job sector. She receives far less compensation as compared to her male colleague for the same work done.

Women face all this despite performing multiple roles effortlessly and efficiently every single day. Their role in development has not been given its due weight nor has been understood entirely. For centuries now, their freedom has been curtailed restricting them from achieving professional as well as personal heights.

To restore their rights and privileges and to give them dignity, the Government of India (GOI) has undertaken many initiatives and is trying its best to uplift the current status of women in the country. The focus is on education, economic independence, health and security. Some of the initiatives are-

- The GOI has set up Primary health care centers (PHCs) or dispensaries, especially in the rural areas for ensuring pre-natal and post-natal care. This has been done to check infant mortality rates in the country and ensure good health of the mother and the baby.
- The GOI has launched many schemes such as Sarva Shiksha Abhiyan, Beti Bachao-Beti Padhao, Free Primary Education, Mid-day meals etc. in order to encourage the parents to send their daughters to school. Government also has scholarship programmes to ensure that girls are given higher education.
- Women have been given reservation in various fields like education, employment, governance etc. so as to ensure greater participation.
- Inorder to make women financially independent they are being given skill training, banks are giving them loans on zero collateral etc.
- Security is of grave concern for women. Administration is constantly making efforts to increase safety of women by introducing various helpline numbers and Apps. Installing CCTVs and giving them defense training.

For revolutionizing the traditional attitudes and inculcating new values of equality government intervention is not enough. Every individual needs to do their bit. They need to recognize that women are important for national and social progress.

"Equality between women and men is a matter of human rights and a condition for social justice and is also a necessary and fundamental prerequisite for equality, development and peace."

United Nations, 2014

Twinkle Bhardwaj (Roll No.276)
B.A. Programme
3rd year

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Managing solid waste

As long as humans have been living in settled communities, generation of solid waste or garbage has been an issue. Modern societies generate far more solid waste than early humans ever did. Unless we want to drown in our own waste, we need proactive involvement of every individual.

Solid waste management refers to, control of generation, storage, collection, transportation, processing and safe disposal of solid waste materials. There are different types of solid waste depending on their source such as household /municipal waste, industrial waste and biomedical waste/ hospital waste.

QUANTUM AND NATURE OF SOLID WASTE

The waste generation rates in India are much lower than the other low income countries and much lower compared to developed countries. However, lifestyle changes, especially in the larger cities are leading to the use of more packaging material and per capita waste generation is increasing by about 1.3% per year. Per capita waste generation ranges between 0.2 kg and 0.6 kg per day in the Indian cities amounting to about 62 million tonnes of waste annually, out of which 5.6 million tonnes is plastic waste, 0.17 million tonnes is biomedical waste, hazardous waste generation is 7.90 million tonnes per annum and 15 lakh tonnes is e-waste (NEERI, 2011). Cities with 1, 00,000 plus population contribute 72.5 % of the waste generated in the country as compared to other 3955 urban centres that produce only 17.5% the total waste. Also only about 75-80% of the municipal waste gets collected of which only 22-28 % is processed and treated. The Energy and Resources Institute (TERI) has estimated that waste generation will exceed 260 million tonnes per year by 2047 more than five times the present level.

Besides the quantity of waste generated we are struggling with collection and coverage of waste which is low and its processing and dumping which is both unsafe and unsanitary. So, we need to look for solutions which are applicable to all the local bodies and in which everyone can be involved.

SOLUTIONS AVAILABLE

Solving this issue begins with segregating waste into – wet, dry and hazardous waste. Then it involves collection. Door to door collection is only possible if manpower is increased. Addressing this, Environment Minister Mr. Javadekar in a press conference said that inorder to have a wider collection it is important to bring in rag pickers into the formal sector besides the existing manpower. The next step after this is processing, treatment and disposal of Municipal Solid Waste (MSW) for which many technological options available such as composting, vermicomposting, anaerobic digestion, incineration and sanitary landfilling etc.

Local Governing bodies along with various NGOs are doing a lot of work in this area, one which can be replicated by all. Some of these efforts have been highlighted below-

GOOD PRACTICES

1) UTTARPARA-KOTRUNG MUNICIPALITY, WEST BENGAL

The Kolkata Solid Waste Management Improvement Project received a global award in the Urban Solid Waste Management category at the "C40 Mayors' Summit" held in Mexico City on December 1, 2016 for its unique and effective solid waste management programme focussing on 100% door to door collection of waste, its segregation and recycling of waste at source and inclusion of rag pickers in waste collection.

All the waste in Uttarpara is segregated at source and is collected by municipal workers every day. The municipality provides rag pickers with masks, gloves, gumboots, and uniforms. Biodegradable and non-biodegradable waste is kept in separate chambers of the van and dumped separately at the transfer centres. The non-biodegradable waste is stored and compressed in compactor machines and later dumped at sanitary landfill sites. A compost plant converts all the biodegradable waste into bio-manure. The manure is sold over the counter and through marketing agents.

2) ALAPUZZHA MUNICIPALITY, KERALA

Under the 'Nirmala Bhavanam, Nirmala Gagaram' (Clean Home, Clean City) initiative, the Alappuzha municipality in 2012 started a waste management programme in 52 wards, and slowly brought in more wards. It started with segregation of waste at the household level, setting up of biogas plants, pipe composting system, and aerobic composting system units to convert waste into compost. The municipality has installed biogas plants at households and in public places, both fixed and portable. Surveillance cameras have been set up to catch those who litter in public. Students and their families have been included by setting up of water and sanitation clubs at their schools. Students are given incentives to segregate waste in the form of book coupons.

3) MYSURU, KARNATAKA

Mysuru was the winner of central government's sanitation survey, Swachh Sarvekshan in 2016 making it the cleanest city in the country. Their project is a team effort between residents and the municipality to ensure complete recycling of the generated waste as part of a citizen initiative 'Let's Do It Mysore.' Mysore produces 0.45 kg garbage per person in a day. Residents have been trained to segregate wet organic waste from dry waste. Wet waste is converted into manure within 35-40 days while the dry and non-biodegradable waste is sent to recyclers on a weekly basis. This garbage is segregated into 24 categories, labelled and sold to scrap merchants who then sell it to factories and businesses for reuse.

4) PANJIM, GOA

Panaji, capital of Goa's campaign is 'Bin less city.' Waste management in the city is carried out at three levels: collection and segregation, transportation and intermediate storage, and treatment and processing. It segregates waste in five categories – wet waste, plastics, paper and cartons, glass and metals, and non-recyclable material. Each colony has compost pits where all households dump their wet waste while sorting centres in the city help segregate dry waste. Non-recyclable material is compressed into small bales and delivered to cement factory in Karnataka. This is an on-going process and there is still a lot which has to be done.

To conclude, I would like to say that we need to learn from these municipalities and several others spread across the country. We need to pick up good practices that would work for us

and make ones of our own. We all need to collectively solve this problem or else the quality of life would continue to degrade as time passes by.

Titiksha (Roll No.142)
B.A. Programme
3rd year

- *Please read for further reference NIUA, 2015 Good Practices- Urban Solid Waste Management in Indian Cities, New Delhi.*

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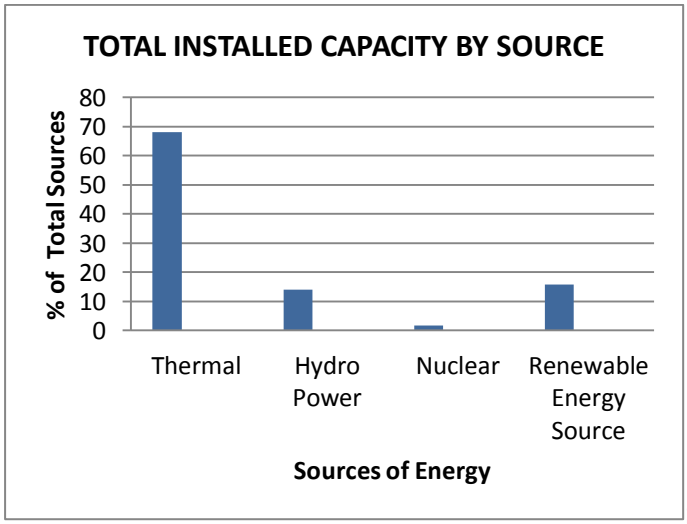
Renewable energy – need of the hour

In the modern contemporary world energy is used in various forms in almost all kinds of activities. This energy is derived from various sources that are largely conventional and non-renewable in nature like coal, petroleum etc. These resources are considered non-renewable as it takes tens of thousands of years in their formation.

The demand for energy has increased steadily, not only because of the growing population but also because of the greater number of technological goods available and the advancements in technology that has brought these goods within the reach of a larger proportion of the population.

As a result of the increase in the consumption of energy, concerns are rising about the depletion of natural resources, those used directly to produce energy and those damaged during the exploitation of the fuels or damaged as a result of contamination by disposal of energy waste products. Most of the energy produced, since time immemorial, has been generated by the combustion of fossil fuels, such as coal, petroleum, and natural gas, and we have only a finite supply of these fuels, which are in danger of being used up. Also, the combustion of these fuels releases various pollutants such as carbon monoxide and sulphur dioxide, which pose health risks and contribute to acid rain and climate change. The need for more environmental friendly source of energy is rising and attempts are being made to extract energy from other sources.

INDIA-



Source*: Ministry of Power, February 2017*

India has one of the highest potentials for harnessing the renewable energy as it is blessed with natural resources, geographical and climatic conditions that support the production of renewable energy technologies like solar, wind, biomass etc.

The development of nuclear fusion reactor is often cited as possible solution to our energy problems. Presently, nuclear-energy plants use nuclear fission, which requires expensive fuels and produces dangerous wastes in contrast the basic fuels for fusion are extremely plentiful (e.g., hydrogen, from water) and the end products are relatively safe. The basic problem, which is expected to take decades to solve, is in containing the fuels at an extremely high temperatures necessary to initiate and sustain nuclear fusion.

Another alternative is wind energy. Wind energy is in form of kinetic energy. A blade of windmill is moved by blowing winds could be exploited for doing work. Theoretically, about 60% of the wind energy can be converted into other forms of energy. At present, India ranks fifth in world wind power generation. Farms have been set up at several states like Tamil Nadu, Gujarat, and Rajasthan etc.

Muppandal Windfarm Kanyakumari, Tamil Nadu (largest wind farm in India)

Geothermal energy can be used to produce electricity. However the inner heat of earth is not available everywhere which can be commercially exploited, such potential has been found in Puga valley in Ladakh.

Tidal energy associated with kinetic energy of tides can be converted to electricity by using turbine. In India, tidal energy harnessing plants have been set up at Gulf of Kutch. The problem with this kind of energy is that it is limited to coastal areas and adversely affects the marine life.

India is characterized by high solar insolation and a dense population, which is perfect combination for utilizing solar power in country. With respect to the solar energy production a number of large projects have been planned including setting aside an area of about 35,000 km in the Thar Desert for solar power generation projects, which has the potential of generating 700 to 2,100 Giga watts. Several states in India are tapping solar energy to generate electricity.

Still, despite being a sun-rich country, India has failed to tap its true potential. Even with more than 300 sunny days a year in most parts of the country, India's solar energy programme had never really made its mark till the launch of Jawaharlal Nehru National Solar Mission in 2010. By the middle of 2013, the installed capacity had risen to 506.9 MW, from 17.8 MW. The total solar power generation capacity in the country as on October 31, 2016 had risen to more than 8727.62MW and the target up to March, 2017 is 10,500 MW.

Solar power plant in Kamuthi, Tamil Nadu inaugurated in 2015, is the world's largest single location operational solar plant. With a capacity to produce 648 MW of electricity, the plant comprises 2.5 million individual solar modules.

India is seeing huge shift when it comes to solar power. Solar energy is being used for various commercial operations. Airports (Kochi went fully solar in 2015), the Delhi Metro, the railways, solar-powered toll plazas, farmers' cooperatives, canal-top solar generation (in Gujarat) and even a solar-powered blood bank (in remote Ziro Valley in Arunachal Pradesh) and the list goes on. But, the best opportunity that remains untapped as yet is, the 'roof top solar' for the vast country as diverse in terrain as India.

When launching the International Solar Alliance (ISA) during the United Nations Climate Change Summit in 2015 at Paris, Prime Minister Narendra Modi had said, "The sun is the source of all energy, the world must turn to solar, the power of our future."

To conclude, I would like to say that we need to slowly move towards utilising this vast potential which is readily available and is eco-friendly.

Cheena (Roll. No. 601)
B.A. Programme
2nd year

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River in distress

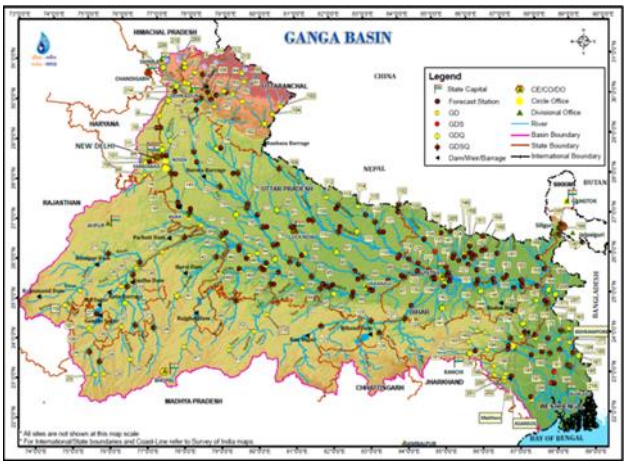
Ganga occupies a distinctive position in the cultural ethos of India. It is the symbol of India's spiritual heritage and represents the 5,000-year-old civilisation. From times immemorial, the river has been at the heart of faith, devotion and worship of its people. People carry this water home as it is considered 'holy' and has 'curative' properties.

Kedar Ghat

Besides, it is also a life-support system for millions of people who inhabit its banks. Despite this, Ganga remains polluted and unwholesome.

GANGA RIVER BASIN-

Ganga is India's largest river basin. It covers 26.3% of the country's total geographical area and supports about 43% of its population. From its source in Gangotri glacier in the Himalayas it traverses a length of 2525 kms through the states of Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal, and finally drains into the Bay of Bengal passing. Besides these states, the river also gets its tributaries from Himachal Pradesh, Haryana, Delhi, Rajasthan, Chhattisgarh and Jharkhand. Thus, spanning a total area of 8, 61,452 sq. kms. Its major tributaries are Yamuna, Rāmgangā, Gomti, Ghaghara, Gandak, Damodar, Kosi and Kali-East. Srinagar, Rishikesh, Haridwar, Roorkee (in Uttarakhand), Bijnor, Narora, Kanauj, Kanpur, Allahabad, Varanasi, Mirzapur (In Uttar Pradesh), Patna, Bhagalpur (In Bihar) and Berhampur, Serampore, Howrah and Kolkata (in West Bengal) are major cities located along the river.



Factors that have contributed to the pollution of the river-

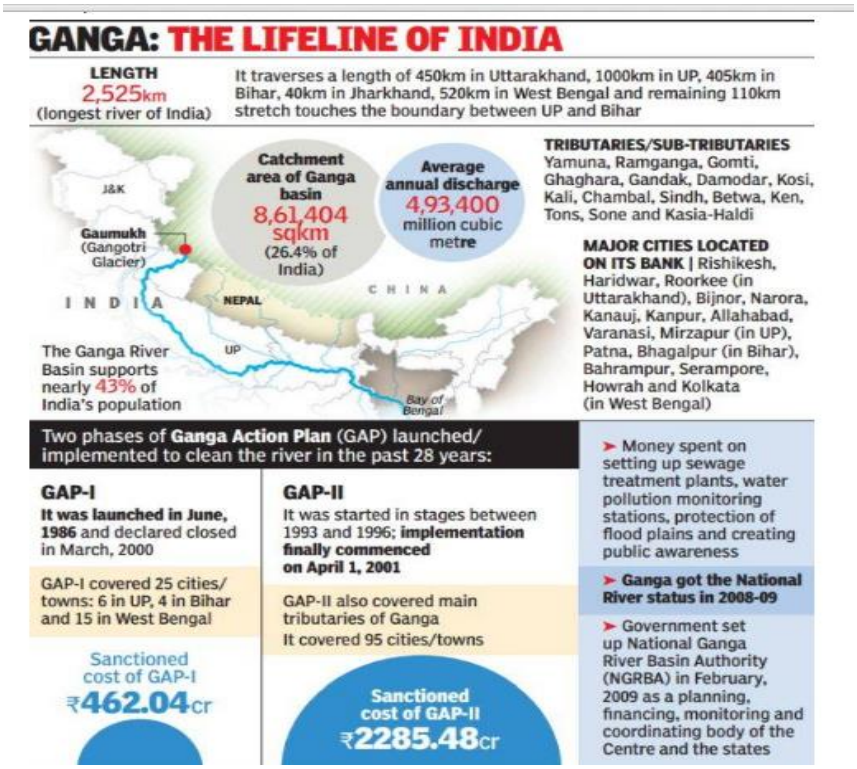
There are various factors which, from the source of the river to its mouth, are disturbing and distorting the natural equilibrium of the river, affecting both its quality and availability.

- Deforestation along the banks and its subsequent erosion
- Decomposed substances, both organic and inorganic from the towns and cities
- Toxic effluents from textile, leather and plastic industries, chemical plants and tanneries
- Inadequate sewage disposal facilities and dumping of untreated sewage from the settlements along the river
- Effluents from agriculture
- Illegal sand mining and brick kilns
- Waste from all the religious rituals
- Damming of the river and its tributaries, diverting the flow and indiscriminate extraction of water from the river as well as its basin, affecting the availability of water in the river and hence its ability to cleanse itself.
- Climate change and associated variability in the rainfall pattern which is further compounding the problem.

Thus, Ganga is one of the most polluted rivers in the world reflecting failure of both the administration and the people who depend on it.

Government Initiatives-

Governments at the centre in collaboration with the states have time and again initiated several river cleaning schemes. But not much has been achieved. According to CPCB 2012 report, "the government has spent over Rs 20,000 crore on various clean-up projects. Yet at Varanasi, the Ganga is little more than a deadly cocktail of groundwater, sewage discharge and spillage from its tributaries."



- Ganga Action Plan launched in 1986. Even after two decades nothing much has been achieved under the plan.
- In 2009, the river was given National River status and fresh attempts were made to clean up the river.

- ‘Namami Ganga’ project in 2015. The aim is to -

✓ To control water pollution
✓ Setting up of waste disposal and treatment plants.
✓ Redevelopment of Ghats
✓ R&D projects for cleaning the river
✓ Modernise crematoriums along the river
✓ Afforestation of the river bank
✓ Ecological rejuvenation of the river

- Smart Ganga City Project, 2016 launched in 10 cities namely, Haridwar, Rishikesh, Mathura-Vrindavan, Varanasi, Kanpur, Allahabad, Lucknow, Patna, Sahibgunj and Barrackpore. The project aims to reduce the gap that exists between municipal waste water generated and treated from the cities along the river.

Thus, the river has heaps of problems. Nothing has worked so far. Even after crores of rupees spent the river remains in a peril. Stretches which were not polluted earlier are becoming polluted and which were already under stress are under great duress. So, need of the hour is to draw effective plans, tighten enforcement and bring in public-private partnership at all levels, make it everybody’s responsibility to clean up the river. As we must learn that we all live downstream, each city’s waste is fast becoming the next city’s water supply (CSE, 2014).

Let’s pledge to restore it to its ‘aviral’ and ‘nirmal’ form

Nikhila Joshi (Roll No. 553)
B.A. Programme
2nd year

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Traditional methods of water conservation

Water is a renewable but a finite resource. Only 3% of the world's water is fresh water. Roughly one-third of it is in the form of permanent ice caps and the rest of it is unevenly distributed. What is readily available for direct use is a small fraction. Over the years, growth of population, rapid industrialization, inefficient use of water for agriculture, reduction in traditional water recharging facilities and inefficient water management have raised the demand for water, making it a scare resource.

Due to the rapid increase in the population and continuous destructions of the water bodies India is soon going to face the problem of water scarcity. Because of climate change rainfall pattern is changing, glaciers are receding, rivers are so polluted that they are becoming dead zones, municipal and industrial wastes continue to find their way into the river treated or otherwise. Due to all these looming issues, water conservation has become the need of the day. Efforts are being made to collect water by building dams and reservoirs and digging wells or storing rainwater through various techniques. Efforts are also being made to revive existent traditional sources of water.

There are some traditional conservation methods in India which are enriched with knowledge to manage water in communal ways. Some of them are still in use but most of them have been long forgotten. There is a need to revive these as these would help in tackling water deficit.

Some of the most prominent among them are:-

- ***Jhalara/Bawdi:*** **-** They are square shaped step-well with beautiful arches, motifs and sometimes rooms on sides. They are groundwater bodies which were built to ensure easy and regular supply of water to the surrounding areas for community use. They are generally found in Rajasthan an Gujarat. These have a lifespan of around 20-30 years.

- ***Johads/Madaks;*** - These are one of the oldest systems used to conserve and recharge groundwater. These are small earthen check dams built to capture monsoon water, which

slowly seeps into recharge groundwater and maintain soil moisture. Water from Johads is still being used by farmers to irrigate fields in many parts of India. But today there is a need of revival of old Johads because many of them have fallen into due to growth of weed plant and dumping of waste.

- ***Baories/Ber***: - Baories or Bers are community wells found in Rajasthan, most of them are very old and were built by Banjaras for their drinking water needs. They could hold on water for a long time because of almost negligible water evaporation.

- ***Katta***: - Katta is built across small streams and rivers by binding mud and stones, they slows the flow of water and stores a large amount of water in it. Then that water gradually seeps into ground and increase the water table. Kattas can go on a long way in sustainable water management.

Keerikkaadu Katta

- ***Kunds***: - Kunds are covered underground tanks developed for tackling drinking water problems. They are prevalent where the groundwater available is saline as it cleans and sweetens water for drinking purpose. Kunds have a saucer shaped catchment area that gently slopes towards the center and an upturned cup nestling in the saucer. The depth and diameter of Kunds depends on their usage.

A Model Example- LAPORIYA VILLAGE, Rajasthan

Laporiya is a small village 80km from Jaipur. This village inhabited by 350 families has been defying water scarcity for the past 30 years. The villagers collectively began to collect rain water under the CHOWKA system. They contributed money and labour to make these pits. As a result of which the ground water which, has gone down to 500feet, in surrounding areas is between 15-40 feet in the village. Soil moisture has improved and availability of water throughout the year has also increased.

"Under the chowka system, small, interconnected, sloping rectangular pits, nine inches deep, are made in pasture land. The pits are bordered with bunds (mud embankment). As water assembles in one chowka it flows into an adjacent chowka and then spreads evenly because of the bunds. After crossing several such chowkas, water finally moves into a pond. This method of preserving rainwater makes the top layer of soil moist, recharges ground water, and also enables growth of native grasses and shrubs (TOI, May 2016)."

Along with this they have adopted some smart agriculture practices. They do not crop water intensive crops. During summer they cultivate vegetables and green fodder that too on land closer to the well. Additionally with better availability of pastures they have promoted dairy farming supplementing family incomes.

This example is being followed by 58 neighbouring villages and is spreading to other districts.

To conclude, when several parts of the country buckle under water scarcity every year, village like Laporiya has managed to keep its head above water for the past several years. They have shown how reviving traditional rain water harvesting system can benefit the community. This solution can be adopted by all the local bodies, for water is an essential resource and its availability is critical for survival.

Ritika (Roll. No.20)
B.A. Programme
3rd year

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From the Faculty

Solid waste management: challenges and opportunities in India

In India, urbanization is rapidly on the rise. Urban Indians now form one-third of the population. Economic Survey 2015-16 predicts that between 2015 and 2031, the pace of urbanisation is likely to increase at a compounded annual growth rate (CAGR) of 2.1 per cent, leading to much more pressure on the urban infrastructure, and resulting in disordered urbanisation.

Our concern....

At the backdrop of infrastructure deficit, one of the biggest challenges is solid waste management. Indian cities are generating eight times more municipal solid waste (MSW) by 2006 than they did in 1947 (World Bank Report 2006). In India, MSW management is governed by Municipal Solid Waste (Management and Handling) Rules, 2000 (MSWR) and implementation of MSWR is a major concern of urban local bodies (ULBs) across the country. Improper collection of waste, vast variation in quantity of waste thus inadequate storage facilities available, improper routing and maintenance of vehicles used for transportation, are leading to open dumped of waste at low line areas at the out skirts of the cities. Planning Commission Report (2014) reveals that 377 million people residing in urban area generate 62 million tons of MSW per annum currently, and it is anticipated that by 2031 these urban centres will generate 165 million tons of waste annually and by 2050 it could reach 436 million tons. To accommodate this amount of waste generated by 2031, about 23.5 × 107 cubic meter of landfill space is required and in terms of area it would be 1,175 hectare of land per year. The area required from 2031 to 2050 would be 43,000 hectares for landfills piled in 20 meter height. These projections are based on 0.45 kg/capita/day waste generation. Besides that unfortunately, no city in India can claim 100% segregation of waste at dwelling unit and on an average only 70% waste collection is observed, while the remaining 30% is again mixed up and lost in the urban environment. Moreover, there is glaring lack of monitoring on corporations' behalf is encountered in several instances in terms of landfill fires and open burning, pollution due to leachate and odour, and vector nuisance.

Steps so far....

Understanding the current crisis, the Fourteenth Finance Commission (FFC) grant to ULBs for 2015-2020 is almost 277 per cent higher than the grant recommended by its predecessor. With the higher devolution of taxes to the states and grants to the ULBs, the overall public funds available for urban rejuvenation have increased. This led the Government to launch several new initiatives to rejuvenate urban areas, as a follow to the flagship programme **JNNURM**, started by the Centre in 2005 across 65 cities. The noted ones are:

- **Smart Cities Mission,** a holistic city rejuvenation programme for 100 cities in India, initially covers five years (2015-16 to 2019-20) and may be continued thereafter based on an evaluation.

- **Atal Mission for Rejuvenation and Urban Transformation (AMRUT)** was launched on 25.06.2015 to improve basic urban infrastructure in 500 cities/ towns which would be known as Mission cities/ towns. The Mission is being operated for five years from financial year 2015–16 to 2019–20 and aims to cover all cities and towns with a population of over one lakh with notified Municipalities, including Cantonment Boards (civilian areas) and certain other cities like capital towns, some cities on stem of main rivers and tourist and hill destinations.

- **National Heritage City Development and Augmentation Yojana (HRIDAY)** scheme was launched on 21st January, 2015, with a focus on holistic development of heritage cities. The scheme aims to preserve and revitalise soul of the heritage city to reflect the city's unique character by encouraging aesthetically appealing, accessible, informative and secured environment. With duration of 27 months (completing in March 2017) and a total outlay of Rs. 500 crore, the scheme is being implemented in 12 identified cities.

- The **Swachh Bharat Mission (SBM)** was launched on 2nd October, 2014, with a target to make the country clean by 2nd October, 2019. All 4041 statutory towns as per census 2011 are covered under SBM. The programme includes elimination of open defecation, conversion of unsanitary toilets to pour flush toilets, eradication of manual scavenging, municipal solid waste management and bringing about a behavioural change in people regarding healthy sanitation practices. Under the solid waste management state/cities are being encouraged to come out with innovative solutions and MoUD supports them technically and financially.

Excellence and Hope....

Kolkata - Solid Waste Management Improvement Project (KSWMIP) bagged the prestigious C40 Cities Awards for SWM that recognize the world's most inspiring and innovative cities tackling climate change, and to create sustainable and liveable cities for citizens, during the C40 Mayors Summit on 1st December 2016 in Mexico City.

Prior to the KSWMIP, waste was piled up to 15 meters (50ft) high at dumping sites, polluting land, water and air. Poor sewage management and waste dumping in the Ganga River had resulted in the extinction of several hundred aquatic animals and insects, damaging biodiversity.

The Solid Waste Management Project has achieved 60-80% (depending on site) segregation of waste at its source, with further waste segregation occurring at transfer stations. Transfer of waste directly to a sanitary landfill site, or through a transfer station, has reduced open dumping by 35% – 120 tonnes per day (TPD). Five composting plants have been built, providing a 150TPD capacity, with three already functioning. Municipalities are able to earn

revenue from selling the compost from the plants, and also by raising user fees from families, institutions, markets and any other waste-generating agency. The current collection services charge is $10 per household, per month. The project has also provided employment for unskilled labourers (Rag-pickers). Public participation in the project is high and a sense of commonality and community have been created through establishing shared citizen behaviour of household waste separation.

Lesson learnt....

When most cities of India are still struggling to make waste-to-resource project a success story, KSWMIP is an eye opener that has proved that adoption and promotion of the '3R' principles (reduce, reuse, recycle) has had positive environmental effects, and drastically reducing indiscriminate waste dumping in the city. This smart solution can be adopted by every city, and that's what every urban Indians want for a sustainable environment.

Dr. Soma Sarkar
Assistant Professor
Department of Geography
I.P. College

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From the Faculty

Contextualizing Cultural Region in India

1.1 Introduction

Cultural regions are a homogenous boundary shaped by environment and human attributes in different proportion wherein political attribute play a catalytic role. The cultural phenomenon is an amalgamation of both physical and human aspects. The study supposes to look into political aspects that how cultural region formed in shape of heartland in India.

1.2 Cultural Region

Region has not any static definition rather defined differently by different geographers. The French geographers Vidal de la Blache called the areas have similar physical and cultural characteristics *pays.* However, the more convincing and acceptable definition was 'an area having the homogeneity of the physical and cultural phenomena' or 'an area that is differentiated from other areas within specified criteria'. The regions can classify or based on physical (topography, relief, climate, drainage, soils, natural vegetation, etc.), cultural (race, religion, caste, language, population, etc.), or institutional (socio-economic) phenomena.

According to Majid Husain (2015: 289), the regions have some common attributes or characteristics;

1.2.1 Attributes of Region

1. Regions have location: Regions often known by name such as the Indian sub-continent, South-East Asia, etc.

2. Regions have boundaries: The regions have some spatial extent. For example, The Ladakh, Thar desert, Caspian Sea, etc.

3. Formal or functional regions: The uniform areal extent or limited areal extent called as formal regions such as, the monsoon regions. The functional regions adheres interactions and connections that shape the dimensions of the spatial extent in varied dimensions, like, City region (Delhi, Kolkata, Mumbai and Chennai). Hence, the functional regions are dynamic identity which changed over space and time.

4. Regions are hierarchically placed: The scale does matter in the study of spatial extent wherein spatiality placed according to its spatial extent such as, Ganga –Yamuna Doab (Upper Gangetic Plain or lower Yamuna Plain).

5. Regions have transitional boundaries: The overlapping boundaries are often feature the regions wherein clear cut demarcation is not possible such as peninsular region have overlapping boundary with Northern Plain.

The identity of regions is not static either to physical or cultural rather found in association along with physical and cultural influences.

1. Physical Regions: It is easy to understand the dimensions of physical regions as formal regions wherein geographers often addressed as environmental spaces of mundane representations and interpretations. It can further classify into varied ways;

   (a) Landform regions: It is classified and demarcated on the basis of structure, process and time wherein the region have unique feature built over period with the help of geomorphic cycle such as, Kashmir valley, Deccan plateau, etc.

   (b) Climatic regions: The region is heavily in debt of climatic factors that shaped the regions over period wherein temperature and rainfall played crucial role. The physical is inseparable from climatic influences.

   (c) Ecosystems as regions: The relationship between biotic and abiotic on physical space wherein role of human is inseparable.

2. Cultural Regions: The role of human is inevitable which played instrumental role in the construction of cultural traits. The cultural traits are indeed a product of cultural process including population, religion, language, politics, etc. playing crucial and detrimental role. For example, Indian cultural regions wherein race, religion, language, and caste played an important role to reflects the distinguish shape and size of cultural identity. These attributes constructs India as cultural region in the existing regions in the world.

The cultural region is too shaped by political forces as well across the globe wherein cultural nationalism is replacing the other nomenclature of cultural indicators foremost for mundane purposes. For example, the construction of heartland as separate political region in India.

Uttar Pradesh is known as "Heartland" of India for various interpretations. The political region can be synonymous as cultural region as well.

1.3 Uttar Pradesh as Heartland

Gyanesh Kudaisya (2006) points out, "UP has come to decisively influence India's politics and to be constructed as a political "heartland" through much of the twentieth century-both colonial and post-colonial."[1] The construction of the political "heartland" started during the early years of the twentieth century and continued till the sixty seven years of independence and the political construction was evident in the UP Assembly elections in 2012 as well. "UP can be perceived as heartland in multiple ways and explores five such distinct, though overlapping, constructions through its modern history: UP as a "colonial heartland", as a "nationalist heartland", as a "Hindu heartland", as a "Muslim heartland", and finally as a "postcolonial heartland." The construction of the political region is of course based on political indicators (a) maximum strength of members of parliament (b) candidates of prime ministerial candidate (most of political parties choose candidates from the state), and (c) breeding centre of communal and caste politics which shapes the India politics for various political colours.

However, the identity of the "heartland" has been shaped and reshaped over time and some issues emerged as bearing the symbolic identity of the "heartland" viz. caste politics (Dalits politics), communal politics (Babri Masjid-Ram Mandir issue) and legislative or electoral politics. The nature of caste politics was shaped in the form of "Dalits Politics" under the leadership of Kanshi Ram and Mayawati. The nature of Dalits politics was further reshaped after the demise of Kanshi Ram when Mayawati assumed the leadership of BSP and made space for "other" caste people to achieve her political ambition in order to leave a political imprint on national politics. Therefore, she astutely carved a political plan along with Satish Mishra to bring Dalits and Brahmin people onto a single political platform under the "social engineering" plan in 2007. However, the same plan could not be revived during the 2012 Assembly elections. The Dalits caste politics provided a new identity to the state with respect to both national and regional politics.

The next section would provide a political permutation and combination that how political parties are made in order to capture power and at what extent that power is important for them

[1] Gyanesh Kudaisya. (2006). Region, Nation, and "Heartland": UP in India's Body Politics. New Delhi: Sage Publications. p6.

for political reasons. The political competition made the spatiality (Uttar Pradesh) to become heartland and conceived as politico-cultural region of India.

1.4 Uttar Pradesh as Politico-Cultural Region in India

The political landscape of UP is heterogenous and every political party supposed to claiming in the state. The political debates during 2012 assembly election was quite discussed in order to address the national and regional politics."The debate on electoral politics has been restricted to the binary of identity or ethinic politics on the one hand and the other-the former as the politics of belonging (identity) and latter as that of belongings (roti, kapdaa, makan). These two generes of political practice are incresingly getting conflated within the contest between the regional (SP and BSP) and "national" parties (Congress Party and BJP)."[2]

Figure 1

Source; TOI. 15.2.2012. p. (Dance of Democracy)

The political landscape of UP is driven from national to regional politics over period and in between four political parties ruled over the state. In which Congress Party ruled maximum period and other political parties ruled either in coalition format or for short period while both BSP ruled in 2007 and SP ruling since 2012 idependently. The presence of BJP in the state politics is noted during 1997-2002 when BJP formed government in the state. These four political paties rule over the state and therefore, there is feeling that they supposed to develop the state. What the caricature in (figure 1) is representing the "four cornerned fight" where voters is scolding these political parties for not developed the state so far. In this caricature two man are dicussing about the UP that over six decades how these political parties made foolish to the people rather voters should "cornered" them. The politial landscape in the state

[2] See for detail. 'UP Assembly Elections: Politics of 'Belonging' or 'Belongings'?'. EPW, Vol. XLVII No 6. February 11, 2012. Mumbai, p 10-11.

is not same after 1989 or post Babri Masjid-Ram Mandir movement when BJP polarised the society. However, the political landscape of UP can understand through the political phases in the state and the political shifts took place when regional parties were given preference over national parties after 1990s.

During 2012 election the exit poll predicted about the SP would emerge as larger political party in the election but SP formed government with thumping majority in the state. Across the political parties it was speculation that the election 2012 is multi-cornerned contests and none of the political party is in position to claim about future governmnet rather informally every party was claiming for forming government. The political allegation and counter allegation become common political activities during election campaign and every political party have own understanding on this. The political landscape was turing every day into a new political discourse that seems like what is portrayed in (figure 2) When political parties alleged that Rahul Gandhi had remote control and he supposed to never return in the state and rule through remote control. The politics around this political discourse somehow given a political opportunities to every political party to say something over the issue. Therefore, in an interview to media Rahul Gandhi conspicuously said in actual that none of the political party have any such control in the state. He explained it "UP is remote from any control, mine or anyone else's." The dyanamics of politics in the UP is broad where *caste* politics is consider an important element.

UP is one of the politically important state in India, is not because of sending maximum number of parliamentarians and given eight prime minister out of thirteen to the India so far, and considering politically strategic in term of coalition politics in India. The stake of UP politicians in the central politics is inevitable and varying with myriad capacity either being extending *out side* support or being *in* the government and ruling the nation. UP politics has shows many up and down since independent in India. The political landscape of UP in India is quite known across the political parties and to the politicians with various reasons. It shall be easier to decode the politics of UP, if we put the light on UP politics with three different phases in term of political riding as such: Congress Party regime; Coalition politics regime; and Regional Party regime.

Figure 2

Source: TOI. 11.2.2012. p. (Dance of Democracy)

Britishers carved North-Western Province in order to provide better administration and moved administration from Allahabad to Lucknow. During independence struggle after that Congress party lead the region in every possible manner. Congress Party ruled almost four decade in UP even, without much political opposition. During these days Congress ruled over the state very smoothly except decade of 1970's when Congress party get embarrass due to implementaion of "emergency rule" provisions in the state with myriad opposition. The ruling of Congress party over such long period and, its misgoveranace provide an opportunity to some sections of politicians to dissociate themselves from the Congress Party and, move separately in order to give a political option to the peoples in the state. The emergence of regional party gained momentum since emergency proclaim but, post *Babri Masjid-Ayodhya Mandir* movement provided an ammunition to the regional party to spread their political space in the state. The role of *mandal* politics also played an important role to shape the regional politics in the state.

"The 1980s were a crucial phase in the transformation of UP politics. Four factors dominated the process of change: the alienation of rural producers, discontent of marginal groups in rural society, growing assertion of the backward castes, and the challenge of communalism"[3] During 90's when nation was under crisis and facing two major problem in which one of them was, economic instability with low economic growth and, second, communal clashes in

[3] Hasan Zoya. 1996. "Communal Mobilization and Changing Majority". In David Ludden (ed.) *Making India Hindu; Religion, Community and the Politics of Democracy in India,* New Delhi: Oxford University Press: 84.

several places in the country. Both the incident has changed the facet of Indian politics and therefore, people was pushed to think for alternative political option from Congress Party rule. This was the political phase when Congress was almost replaced by regional politcal parties in North Indian state? The political cosequences was accounted as genesis of regional political parties, who replaced the Congress Party in the state. The political tradition to keep out Congress Party in the UP in which both the regional parties (both SP and BSP) are some extent successful so far. The failure of Congress party in 2012 election is consider an extension of regional politics where peoples do not buying the politics of national party rather preferring regional party over national party for various reasons.

After Janta Party governmnet in the 1970s again coalition governmnet formed when Mulayam Singh Yadav[4] assume charge in the 1989 with the support of BJP, although the government could not complete its tenure due to political deficit between Janta Dal and BJP. Over period there are several coalition government formed but none of them can called a successful and prolong rather political tussle between political parties somehow derailed the coalition in the state. The coalition between BJP and BSP even was not prolong and end with disgusted note that in future both would restrain to ink any such pact. The coalition between SP and BSP also end with disruptive views and vows to avoid each other even out side the state. Although, the coalition action was supposed to take placed to keep Congress Party out of power in which both the regional parties (BSP and SP) partly successful. The faith of Congress is still hanging and looking for political mirage? However, 2012 election again failed to install the Congress fortune in the state while the elction was fought under the leadership of Rahul Gandhi

"The BSP political regime starts when BSP contested elections for the first time in UP in the 1984 Parliamentary elections and the following 1985 Assembly elections. Between 1984 and 1989, the BSP could win no seats, but its base among Dalits, especially government employees, grew"[5] Over period the vote percent of BSP increased incredibly. However, by 1993 Mulayam Singh Yadav formed SP from breaking its political allegiance from SJP

[4] Mulayam Singh Yadav found his political genesis during JP movement and since then he became an instrumental regional leader in the politics of the UP. He became CM in the year 1989 with the support of BJP but government fall due to reiterated demand of BJP to construct Ram Temple at Ayodhya cause the Janta Dal-BJP coalition in the state and in the centre also.

[5] Sudha Pai. 1996. Dalit Assertion and the Unfinished Democratic Revolution: The BSP in UP. New Delhi: Sage Publications: 155-6.

(Samajwadi Janta Party) an dby 1993 elections, "the SP and BSP as lower-caste parties well positioned to jointly oppose the communal mobilisation of the BJP."[6]

However, Maywati[7] was successful to assume the post of CM of UP thrice under coalition formats either with the support of SP and BJP respectively and once formed full fleged government (2007-12) in the state. The political wheel again turn in new destiny when BSP supremo diverts her political policy from "Bhujan Samaj" to "Sarva Samaj" and open door for every caste to join BSP. Thus, she played the politics of inclusion in form of "social engineering" where "social" and "caste" were experimented in new political format by Ms. Mayawati in 2007. Across the political parties it was common understanding that in the present situation of UP that none of the regional party can rule over the state overwhelmingly. In 2007 assembly election Ms. Mayawati secure 206 seats out of 403 and the election was considered as an experiment which is still unexplored across the political thinkers and political parties as well. However, the experiment of "social engineering" do not got second term rather crticized on ethical and moral sancitity of such political bondness and social alliance was considered as political opprtunitism.

"In 2007 the BSP secured an overall majority, winning 206 seats and 30% of the vote. During the 2012 assembly elections the BSP lost 4.5 percentage points in votes and lost 126 assembly seats. Though the decline of 4.5 percentage point votes may not look like a big loss; in a four cornered contest even a modest change in votes can have a big impact on seats. Moreover, of potentially great concern to the BSP, the party's popularity declined most amongst its core supporters. The BSP fared particularly badly in places where it had traditionally done well, such as in the assembly constituencies reserved for dalits. In the 2007 assembly elections, the BSP won 61 of the 89 seats reserved for dalits, which corresponds to 68% of the reserved seats. This time, in 2012, the BSP won only 15 of the 85 seats reserved for dalits, which corresponds to just 18%. (Following delimitation the number of seats reserved for dalits declined from 89 to 85.)."[8] However, BSP loss the election badly and SP win assembly election-2012 with thumping majority and got the support of Dalit people overwhelmingly.

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[6] Ibid: 162.

[7] She assumed four times the post of CM of UP

[8] Oliver Heath, Sanjay Kumar. "Why Did Dalits Desert the Bahujan Samaj Party in Uttar Pradesh?" EPW, July 14, 2012 Vol xlvii no 28.p. 41

The national politics is some extent manoeuvred by those sections of politicians who are controling the UP politics. In post 2012 assembly election both SP and BSP extended their out side supports to the central government and at many occasions SP bail out the central government from the political crisis; during nuclear crisis when Congress lead UPA-1 was supposed to fall. Even now days UPA-2 is running with the help of both the regional parties (SP and BSP) rather both are maintaining distance to each other for political calculation of 2014. The role of UP in Indian politics is pivotal and inevitable and some extent writing the politcal destiny of the country. However, both SP and BSP got humuliating defeat from BJP in the general election 2014 in the state when BJP secure 71 seats out of 80 Parliamentary seats while SP got five seats of family members including Mulayam Sigh Yadav (Mainpuri and Azamgarh) seat while BSP unable to open the account and Apna Dal got two seats. Thus, again "heartland" proves that those who control the UP shall control the national politics.

The political permutation and combination of heartland given us a chance to understand the region that how it is different from others and how it become heartland over period. Thus, on this basis the spectrum of cultural regions can understand, as well.

1.5 In Sum Up:

The cultural region is a process of complex indicators wherein both physical and human played catalytic role to shape it. The dimensions of cultural region can delineate through mundane representation and interpretation including the political factors as well. The creation of heartland as cultural region is based on human influences which determine the causative factors for political reason. Thus, cultural region seldom found in isolation rather shapes in composite process of physical and human intervention in different proportion.

1.6 To evaluate yourself

1.6.1 Answer in 500 words

1. Critically evaluate the cultural regions.

2. To describe the cultural fabrics in the making of regional identity in India.

3. Critically examine "India is a land of regional identity".

4. To map the political conflicts in the making of cultural region in India (with reference to heartland politics, in India).

5. To evaluate the political cultural region in India.

1.6.2 Tick mark (True and False)

Correct Option	Question Number	Questions
T	1	Language determines the cultural boundaries ().
T	2	Kathak is a north Indian cultural folk dance ().
T	3	Moradabad is an industrial region in India ().
T	4	Heartland is political region in India ().
T	5	Culture shaped by both biotic and abiotic component ().
F	6	Insects are abiotic component ().
F	7	The shrine of Hzt. Nizamuddin Aulia is located at Ajmer ().

1.6.3 Multiple choice questions (tick right answer)

Correct Option	Question Number	Questions
C	1	The Christianity comprised the population in India. a. 2.4% () b. 2.6% () c. 2.3% () d. 2.5% ()
C	2	Bihu as cultural region of. a. Assam () b. Bihar () c. Kerala () d. Manipur ()
C	3	How many types of soils found in India. a 6(), b, 7(), c 8(), d 5()
B	4	Tirupati as regional culture belongs to. a. Bihar () b. Andhra Pradesh () c. Telangana () d. Tamil Nadu ()
B	5	How many languages have been included in the VIII schedule in the Constitution of India a. 18 () b. 21 () c. 22 () d. 20 ()
A	6	Rajmahal Hills is located at? a. Jharkhand () b. Odisha () c. Assam () d. Kerala ()
A	7	Kadars belong to which racial group? a. Negritos () b. Australoids () c.

		Mediterranean () d. Nordic ()

1.7 Suggestions for further reading

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Singh, R L. India: Regional Studies, Michigan University of Michigan, 2007.

1.8 References

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Dr. Moinuddin Sheikh
Assistant Professor
Department of Geography
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Answer

Quiz-

1. C
2. A
3. A
4. B
5. D
6. A
7. A
8. A
9. C
10. D
11. D
12. C
13. A
14. C
15. D
16. A
17. A
18. A
19. D
20. D

From the Faculty

Narmada Bachao Andolan

General issues relating to displacement of tribals and alleged violation of rights under Article 21 of the constitution

Water is one element without which life cannot be sustained. Therefore, it is to be regarded as one of the primary duties of the Government to ensure availability of water to the people. There are only three sources of water. They are rainfall, groundwater or from river. A river itself gets water either by the melting of the snow or from the rainfall while the groundwater is again dependent on the rainfall or on the river. In most parts of India, rainfall takes place during a period of about 3 to 4 months known as the monsoon season. Even at a time when monsoon is regarded as normal, the amount of rainfall varies from region to region. For example, north eastern states of India receive much more rainfall than some of other states like Punjab, Haryana or Rajasthan. Studies show that 75 percent of the rain water drains into the sea due to absence of the storage capacity. According to a study conducted by Central Water Commission in 1998, surface water resources were estimated at 1869 cu km and rechargeable Groundwater resources at 432 cu km. It is believed that only 690 cu km can be utilised by storage.

One way of storing water is by building of dams. Dams serve a number of purposes. It stores water, generates electricity and releases water throughout the year and at times of scarcity. The construction of dams involves three stages –one is co-option or planning, second is decision to undertake the project, and the third is the execution of the project. The conception and the decision to undertake a project is to be regarded as a policy decision. It is expected that a thorough possible study will be undertaken before a decision is taken to start a new project.

However, serious doubts have been raised on the decision of construction of a dam on River Narmada. In a petition filed against the construction of this dam, the learned counsel raised four main issues –

[1] Whether the execution of a large project, having diverse and far reaching environmental impact, without the proper study and understanding of its environmental impact and without proper planning of mitigative measures is a violation of fundamental rights of the affected people under Article 21 of the Constitution of India.

[2] Whether the diverse environmental impacts of the Sardar Sarovar project have been properly studied and understood.

[3] Whether any independent authority has examined the environmental costs and mitigative measures to be undertaken in order to decide whether the environmental costs are acceptable and mitigative measures practical.

[4] Whether the environmental conditions imposed by the Ministry of Environment have been violated and if so, what is legal effect of the violations?

According to the petitioner, when the decision was taken to undertake Narmada dam project, proper study and analysis of the environmental impacts and mitigative measures which were to be taken, were not available and therefore, this decision was not valid. The decision to construct the dam was stated to be a political one. It was submitted that even the basic minimum studies and plans required for the environmental impact assessment have not been done. It was also said that if the practice of water harvesting is restored and some check dams are constructed there would really be no need for a high dam like Sardar Sarovar.

The Narmada River Valley Project has been termed by the writer Claude Alvares as 'world's greatest planned environmental disaster 'a truly utopian scheme'. The project envisages construction of 30 major dams, 135 medium and 3000 minor dams on the river. It was on Sardar Sarovar dam, the project's largest individual scheme that the opposition developed.

Sardar Sarovar is unique in the history of dam building in India. The command area lies in one state i.e. Gujarat, while submergence and displacement which would effect 193 out of the 243 villages lies in another state i.e. Madhya Pradesh. According to official estimate, over 100,000 people, of whom approximately 60 percent are tribals, will be rendered homeless. Most of the local population is either illiterate or have marginal means of employment and the per capita income of their families is low. The displacement will further ruin them. It would disconnect them from their past and their culture, customs and traditions. They will be displaced from their ancestral homes and their way of life. It is a violation of their fundamental right. So it is necessary to calculate environmental and social cost of the river valley projects.

Thus, Narmada Valley Project led to organised massive scale protests against the construction of big dam's. It was argued that poor are made to bear the social and environmental costs of economic development.

Dr. Anita Gupta
Associate Professor
History Department
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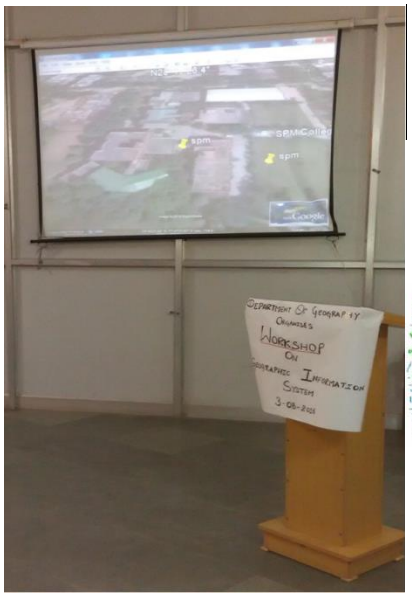
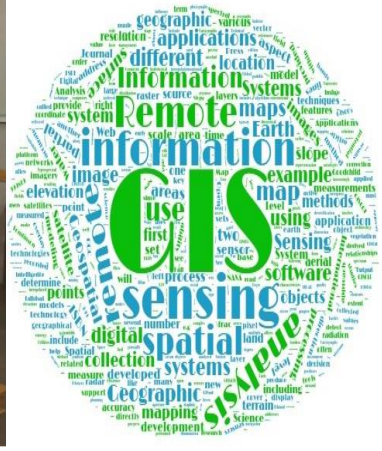
Departmental Activities

Workshop

Application of Remote Sensing & GIS

The department organised a workshop on the theme Application of **GIS and Remote Sensing.** Speakers were Dr. Subrato Paul, Ms. Harshada Kulkarni and Dr. Ravindra Nath Tiwari, Institute of Photogrammetry and Geo Informatics, New Delhi.





Geography deals with mapping and analysing data from the real world. From time immemorial we have mapped lands known to us and have collected data through different methods. In modern times Remote Sensing and GIS are new technologies available for doing so.

Remote sensing is the method of collecting information about an object or phenomena without making any physical contact. GIS is a system for capturing, storing, checking, and displaying data related to positions on Earth's surface.

The workshop gave us an idea about this technology, its application and available Career options. We did short hands on training on Google Earth. Dr. Paul showed us the various features of Google Earth, how we can digitize an area, add height to a feature, extract information, attach our information etc.

We all enjoyed informative couple of hours. It was a revelation for many of us for whom this was a new subject as many of us haven't studied this ever before.

Yashasvi (Roll. No. 785)
B.A. Programme
2nd year
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Excursion

A trip to Indian Agricultural Research Institute

Students of Department of Geography went for a day long visit to Indian agricultural research institute (IARI) in west Delhi, popularly known as PUSA institute. The trip aimed to educate us on how agricultural practices are carried out in our villages. It also showed how agriculture has become a technology driven activity.

We started from our college at 8.30 am and reached the main gates of IARI at 9.30 am tackling the usual hustle-bustle on Delhi roads. Slight mist, broad roads, clean environs and green landscape welcomed us. It felt as if we were in a different city. IARI is a huge campus and has several research centres. Our destination was The Centre for Protected Cultivation Technology. We took our directions from the guard post and proceeded further. It took a while to reach the centre as it is in the interior of the institute. Situated in the midst of vast agricultural field the centre imparts education and training to farmers and other stakeholders. It also experiments with new and innovative agricultural technologies which can be made commercially viable. At the centre we meet by Dr. Praveen Kumar Singh, Principal Scientist (vegetable science). He was our resource person who gave us an insight into the work carried out by the centre.

Our day with him included:-

* A lecture & an interactive session on our understanding of art and science of cultivation.

* Tour of the centre, where he explained different methods that can be adopted in cultivation. We saw greenhouses of different kinds- environment controlled and not controlled.

* He also spoke about vertical gardening and the growing need to create them in urban spaces.

* He showed how soil less cultivation is being taken up to transport pods of plants over long distances.

* He showed us the rain water harvesting facility. The reservoir created stores thousands of litres of water sufficient for several days.

* He also spoke about organic farming and its benefits and we got a chance to eat some freshly picked salad vegetables from the farm.

Our tour with him came to an end and we thanked him & moved further.

Our next destination was The National Agricultural Science Museum, IARI. I had never heard of this museum, although I have lived in Delhi all my life. Spread over a two storey, the museum portrays the development of agriculture in India from time immemorial. This museum has 150 exhibits which are displayed in 10 major sections. It had several interactive maps like map of rivers, weather and various crops. One section of exhibits show cased different tools used in cultivation, another showed different seeds and so on. Taxation in agriculture was explained under various rules- Mughals and British especially. We spent some time here and then the time came to say au revoir.

We started our journey back, with a deep respect for farmers who toil so hard on the fields and happy having learnt so much. We are thankful to our teachers, who decided to bring us here on our first visit. In all it was a good day out with friends.

Looking forward to another trip…….

Sonam Saroha (Roll. No. 552)
B.A. Programme
2nd year
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Workshop

Bottle gardening: encapsulating beauty of nature

Ever seen a garden in a bottle? Only a genie might be able to do that, right? Well, not anymore. Even you can conjure one at home now.

Don't believe me? Let me tell you how….

Gardening is learning, learning and learning about nature and its many mysteries. It's a fun way of understanding the working of an ecosystem and the complex interrelationships that exist in the environment.

Department of Geography organized a Lecture cum demonstration on Bottle Gardening. Members from All India Kitchen Garden Association were our resource people for the day. They have been associated with this for past several years and had much to share with us. This workshop aimed to inspire students to take pledge to help restore nature's harmony in a creative and a very easy way.

Bottle gardening, as the name suggests is a really attractive and unusual way of growing plants indoors in a bottle. Commonly used as a form of decoration, a bottle garden is perhaps a brilliant substitute of balcony or terrace gardens for city apartments which face a space crunch.

For making your own bottle garden you require some simple readily available items and need to follow some basic steps

- Items- a bottle, small fragments of charcoal, pebbles or gravel, badarpur(red colored sand that you can get at any construction site), Yamuna sand, soil to which good quality compost has been added.
- Steps- Clean the bottle very nicely. Place all the ingredients in layers one over the other. Layering begins with charcoal and ends with soil. Then plant the plants. Take plants of various colors and dwarf variety. Then with the help of a spray water the plants so that they are completely soaked. Different accessories may be placed inorder to give it a natural look. Then cover the bottle and keep it in a corner where there is light but not direct sunlight. During the night you may need to remove the lid of the bottle if you feel there is too much moisture inside the bottle.

Plants will grow inside the bottle with little or no exposure to the outside environment, and can be contained indefinitely inside the bottle if properly illuminated. If carefully made, a bottle garden can last a long time needing very little attention and with the great advantage that the plants do not get dusty and pests are excluded.

There are only few plants which can be grown into bottle namely, Calatheas, dwarf palms, Ficus, small ferns etc. Also, even a stem can be planted. You just need to dip the stem in a hormone powder named 'Root' and it will fix the plant in the soil. Flowering plants are not recommended along with plants which grow too fast.

By the time Ms. Sarika finished her demonstration the bottle looked beautiful. We all looked amazed and were much enthralled. It was a wonderful experience. We vowed we will create a bottle garden of our own. Although I haven't made one but will surely make in near future.

Thanks for a very interesting afternoon……

Swati Priya
B.A. Programme
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Workshop

Mapping Disaster Risk and Vulnerability

Disasters are not new to mankind. They have affected our society since time immemorial. India's geo-climatic conditions along with its high degree of socio- economic vulnerability makes it one of the most disaster prone countries in the world. With increasing environmental stresses, the frequency and magnitude of disasters are increasing. We need to create awareness about this amongst the masses.

With this in our mind the Department organised a Workshop, "Mapping Disaster Risk and Vulnerability" on 6th September, 2017. Our resource person was Dr. Rakhi Parijat, Associate Professor, Department of Geography, Miranda House, University of Delhi.

The workshop was divided into 3 sections-

1. Film viewing
2. Presentation by the resource person
3. Interaction with the students and future course of action

The workshop started with viewing a 20 minute film "Mapping through the Lens." This movie has been produced by students of Miranda House. The movie showcases what a lay-man on the street perceives about disasters, what is a disaster to them, their awareness of risks and vulnerabilities and their preparedness.

The second section included presentation by Dr. Parijat She explained the concepts of –

- Hazard and Disaster
- Risk
- Vulnerability

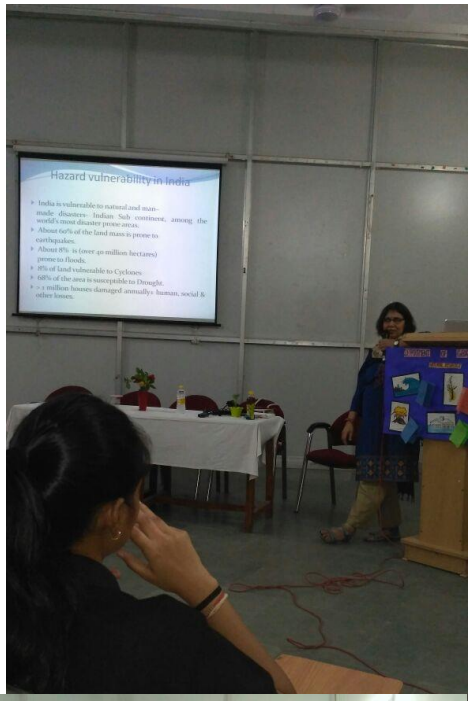
She then took us through the classification of Hazards and Hazards in India.

She spoke on the need for preparedness and the need for creating awareness about the hazards as these are the only ways of managing hazards and mitigating its impacts. She took us through do's and don'ts of various hazards.

In the final part of the workshop she explained the various projects she has been doing in her college –

- Mapping her college
- Making evacuation plan for the college, in-case any hazard strikes
- Evacuation drill with a demonstration by Civil Defense volunteers and Fire Department
- First Aid and Home Nursing course conducted by St John's Ambulance
- Workshop on Disaster Risk Reduction in collaboration with National Institute of Disaster management and National Disaster Response Force
- Mapping the neighbourhood- identifying the facilities available, hotpots of disasters and resident's perception, awareness and preparedness.
- Creating short awareness programs through jingles, notably on everyone having a back-pack of essentials ready at our residences always.

She also gave students ideas about all that they can do in the college and in their own neighbourhood.



We thanked her for an enriching afternoon and pledged that all of us will contribute our bit to create awareness about hazards around us.

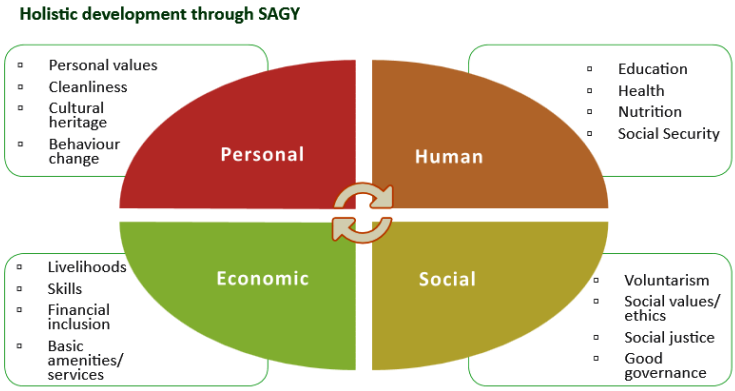
Anuradha Shankar
Assistant Professor
Department of Geography,
SPM College

Making Headlines

Taking Development to the Grassroots

Rural India, even today comprises of 67.25% of its total population (World Bank, 2015) while its share in national income is less than %. Rural- urban divide is visible in all spheres of human life, with rural areas losing out to the overpopulated urban areas. What needs to be looked into is the magnitude of this disparity which is getting accentuated every passing day.

Keeping this in mind government has time and again drafted several programmes and the most recent is Sansad Adarsh Gram Yojana. This programme aims to facilitate rural development.



Rural development is a process, which aims at improving well-being of rural people. It involves development of infrastructure, health, education, economy and technology. It also involves converting political will into action and mobilising private sector into investing in these areas. It also needs proactive inclusion and involvement of every stakeholder to have a meaningful impact.

Rajya Sabha MP and cricket icon, Sachin Tendulkar, in November 2015, adopted Puttamrajuvari Kandriga village in the state of Andhra Pradesh under Sansad Adarsh Gram Yojana. He contributed 2.79 crore from Member of Parliament Local Area Development Scheme funds, while government sanctioned additional 3 crore for the holistic development of this village.

Several projects were taken up including laying out roads and storm water drains, 24x7 water supply, street lighting, and construction of toilets, a community hall, a playground, and a school for children. Within a short span of time, the village has turned into a model village with all projects completed. The village has been declared open defecation-free village. All this has been achieved because of political will, quick decisions and constant supervision. After achieving a considerable success there, MP Sachin is all set to bring similar changes in village Donja in Osmanabad district, Maharashtra.

Thus, the need of the hour is replicating this model as much as possible by involving every agency who is empowered.

Yashasvi (Roll. No. 785)
B.A. Programme
2nd year

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Making maps accessible to all

Maps are an integral part of understanding geography. They represent real world on a smaller scale. They show spatial arrangement and distribution of elements over an area.

Mapping has been an important tool in the documenting human evolution. They have assisted us in our growth and development and have been passed over generations helping us in the development of our society and culture.

Using maps comes naturally to those who are sighted but for those who are visually challenged making sense of what a map looks like is difficult. Until now…….

Realising this National Atlas and Thematic Mapping Organisation (NATMO) has developed an Atlas of Braille maps in January 2017. It is a comprehensive collection of maps using silk-screen printing technology. Simple lines and point symbols helps in understanding the areal extent through textural variation. The Atlas contains 20 maps covering physical and socio-economic features; river systems; natural vegetation; metropolitan cities; roads and railways. Food crops and cash crop maps have also been incorporated with an analysis of the maps for a complete understanding. The atlas has been prepared in English, Hindi and other regional languages. NATMO is planning to embed an audio file into this and use GPS to help students identify the locations.

Kudos to NATMO!! This effort would help those who are visually challenged to envisage the landscape around them.

Surbhi Gupta (Roll No.598)
B.A. Programme
2nd year

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Answers

Word Puzzle-

Himalaya, Arch, Benares, Port, Stream, Delta, State, Earth, Trellis, Plate

Making mark in Global Space Programme

Indian Space Research Organisation (ISRO) is rapidly gaining a reputation in the world for its low-cost space mission. On 15th February, 2017 ISRO created history by successfully placing 104 satellites in their desired sun- synchronous orbits. Launch vehicle (PSLV) took off from Satish Dhawan Space Centre, Sriharikota, at 9.28 a.m. and took 28 minutes to complete the historic event. It launched indigenous satellite Cartosat-2E for Earth observation and Nano satellites INS-1 and INS-2. Besides these it had 101 satellites from US, Kazakhstan, Netherlands, Switzerland, Israel and United Arab Emirates. *PM Narendra Modi, among the first to congratulate the scientists tweeted, "This remarkable feat by @isro is yet another proud moment for our space scientific community and the nation. India salutes our scientists."*

Network18 creative (Courtesy: Judhajit Basu)

Indian Space Research Organisation, formed in 1969, is one of the six largest space agencies in the world. Its mission is to provide space based services to the nation and to develop the technologies to achieve the same independently.

ISRO maintains one of the largest fleet of satellites that cater to the ever growing demand for fast and reliable data. ISRO delivers application specific satellite data covering various aspects of day-to-day activities, including broadcasts, communications, weather forecasts, disaster management, Geographic Information Systems, cartography, navigation, telemedicine, dedicated distance education, resource monitoring, scientific research etc. Besides these, inorder to achieve complete self-reliance, it has also developed cost efficient and reliable launch systems, the Polar Satellite Launch Vehicle (PSLV) and the Geosynchronous Satellite Launch Vehicle (GSLV).

Apart from enhanced technological capability, ISRO also plays an integral role in advancing science and science education in the country.

Having achieved these remarkable landmarks ISRO strives to seek a bigger share of the $300 billion global space industry.

Yashasvi (Roll. No. 785)
B.A. Programme
2nd year

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आवाज

कैसा होगा वो जहाँ

जहाँ जल न धारा हो,
आँखों में नमी
और बूंद-बूंद का हिसाब हो
कैसा होगा वो जहां!

जहां पेड़ न बाग हो,
रुकी जहाँ हरेक सांस
और मर रहा इंसान हो,
कैसा होगा वो जहां!

जहां शंति न प्यार हो,
जहाँ नफरत की आग
और युध्द का शखंनाद हो,
कैसा होगा वो जहां!

जहाँ राहत न आराम हो,

हवा में घुला हो विष
और शरीर निर्जान हो,
कैसा होगा वो जहां!

जहाँ दाना न अनाज हो,
जहाँ भूखा और
तरसता हर इंसान हो,
कैसा होगा वो जहां!

जहाँ झील न तालाब हो,
रूठा हो जीव और
'बचाओ' की पुकार हो,
कैसा होगा वो जहां!

जहाँ दया न मान हो,
जहाँ अच्छाई और
सचाई का अवकाश हो,
कैसा होगा वो जहां!

जहाँ बाल न परिवार हो,
जहाँ काम करता यंत्र
और शरीर बेकार हो,
कैसा होगा वो जहां!

जहाँ जीव न जानवर हो,
सूना जंगल और
आपदाओं का सैलाब हो,
कैसा होगा वो जहां!

जहाँ सोच न विचार हो,
जहाँ मानव स्वार्थ और
प्रकृति का अपमान हो,

क्या ऐसा तो नही हमारा जहां!

Priya (Roll. No.689)
B.A. Programme
2nd year

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ग्रामीण विकास

भूगोल एक ऐसा विषय है जिसमें सभी विषयों का समावेश है जो प्रत्यक्ष और अप्रत्यक्ष रुप से मानव के चारों ओर मौजूद है। मानव जो भी कार्य करता है वह केवल प्रकृति के कारण संभव है। प्राकृतिक संसाधनों का उपयोग कर मानव तरक्की तथा सफलता पाता जा रहा है लेकिन संसाधन सीमित हैं। इनका उचित प्रकार से उपयोग जगत के कल्याण हेतु करना होगा न की अंधाधुंध। प्रकृति और मानव एक दूसरे को प्रत्यक्ष रुप से प्रभावित करते हैं। अंतः मानव और भूगोल के बीच गहन संबंध है।

प्रश्न है कि भूगोल किस प्रकार ग्रामीण विकास से संबंधित है? ग्रामीण विकास क्या है तथा इसका महत्व क्या है? किस प्रकार ग्रामीण विकास किया जा सकता है तथा लोगों द्वारा किस प्रकार इसको सहयोग प्रदान किया जा सकता है? भूगोल दो भागों में विभाजित है भौतिक भूगोल और मानव भूगोल। भौतिक भूगोल के अंतर्गत पृथ्वी की उत्पत्ति, आयु संरचना, नदी अपरदन, वायुमंडल, स्थलमंडल, जलमंडल, मृदा अपरदन आदि तथा मानव भूगोल में जनसंख्या का वितरण, ग्रामीण और शहरी आवास, समाज और विस्तार आदि विषयों का अध्ययन किया जाता है। ग्रामीण और शहरी विकास के अंतर्गत ग्रामीण विकास एक महत्वपूर्ण विषय है। ग्रामीण विकास से अभिप्राय ग्रामीण क्षेत्रों में बिजली, पानी, रोजगार, बैंक, अस्पताल, स्कूल आदि सुख- सुविधाओं को उचित स्तर पर मुहैया कराना है।लेकिन विकास का तात्पर्य केवल भौतिक विकास से नहीं अपितु मानव विकास से भी होता है। मानव विकास से अभिप्राय शिक्षा ,रोजगार, आय में वृद्धि, भरपूर पोषण एवं स्वास्थ्य आदि से हैं। यह सभी मनुष्य को भरपूर जीवन जीने में सहायक होते हैं।

शहरी विकास के पीछे ग्रामीण क्षेत्र का महत्वपूर्ण योगदान है। लेकिन कहीं ना कहीं ग्रामीण और शहरी क्षेत्रों में समन्वय नहीं है। संयुक्त राष्ट्र संघ के 2015 के आंकड़ों के अनुसार विश्व की 46 प्रतिशत जनसंख्या ग्रामीण क्षेत्र तथा 54 प्रतिशत जनसंख्या शहरी क्षेत्रों में निवास करती है। भारत एक कृषि प्रधान देश है व कृषि भारतीय अर्थव्यवस्था की रीढ़ की हड्डी है। भारत की कुल जनसंख्या में से 68.84 प्रतिशत जनसंख्या ग्रामीण क्षेत्रों में निवास करती है। देश के विकास के लिए सर्वप्रथम ग्रामीण निवासियों का विकास होना अनिवार्य है। महात्मा गांधी का कथन है" कि भारत ग्रामों में निवास करता है अर्थात भारतीय अर्थव्यवस्था की आधारशिला और आधार कृषि और ग्रामीण क्षेत्र है सर्वप्रथम इनका विकास होना जरूरी है। "

ग्रामीण विकास हेतु सरकार द्वारा विभिन्न योजनाएँ और कार्यक्रम चलाए जा रहे हैं।जनता का भी इसमें महत्वपूर्ण योगदान रहा है। उदाहरण के लिए स्वर्ण जयंती ग्राम स्वरोजगार योजना (SGSY) ,महिला समृद्धि योजना, प्रधानमंत्री रोजगार योजना,प्राथमिक विद्यालयों के लिए पोषक आहार योजना आदि। निर्मल भारत अभियान और समेकित बाल संरक्षण योजना,

ग्रामीण सरकारी नीतियों के अंतर्गत आते हैं। जनधन योजना और प्रधानमंत्री फसल बीमा योजना "डिजिटल इंडिया" के तहत शुरू की गई है। इन योजनाओं के अंतर्गत न्यूनतम प्रीमियम, अधिक सुरक्षा का वायदा और कम ब्याज दर पर ऋण आदि आते हैं। इसके अतिरिक्त पंचवर्षीय योजनाओं के माध्यम से भी ग्रामीण वासियों के लिए विकास का एजेंडा तैयार किया गया है। ग्रामीण क्षेत्रों में अनेक जनजातीय और पिछड़ वर्ग के समुदाय भी निवास कर रहे हैं। समाज द्वारा होने वाले इन के प्रति व्यवहार को दृष्टि में रखकर सरकार ने इनके लिए भी अनेक योजनाएं और कार्यक्रम को चलाया है। जैसे पिछड़ी जातियों व जनजातियों के लिए स्कूल, सरकारी नौकरियों में आरक्षण की व्यवस्था आदि की गई है। विकास का तात्पर्य केवल क्षेत्रों का उत्थान करना नहीं है बल्कि सभी जनों को समाज में सम्मान और समान रूप से स्थापित करना भी है।

ग्रामीण विकास की इन सभी योजनाओं से अलग-अलग क्षेत्रों पर अलग-अलग प्रभाव पड़ रहे हैं लेकिन मंजिल अभी दूर है। कृषि का महत्व थोड़ा थोड़ा कम होने लगा है। लघु और कुटीर उद्योग भी धीरे-धीरे मशीनी उद्योगों के कारण पिछड़ रहे हैं। ज्यादातर लोग नगरों की ओर रुख करने लगे हैं ताकि उन्हें अनेक सुविधाएं और चीजें आसानी से उपलब्ध हो सके आदि। इसका अर्थ क्या यह मान लिया जाए कि ग्रामीण क्षेत्र में विभिन्न योजनाओं का जन सामान्य को कोई लाभ नहीं हो रहा? नहीं, लाभ तो हो रहा है किंतु उस स्तर पर नहीं जितना होना चाहिए। साक्षरता और जागरूकता का अभाव है। शिक्षा द्वारा ही विचारों में परिवर्तन आता है और यही परिवर्तन विकास को जन्म देता है। इसलिए भारत में शिक्षा की मात्रा और स्तर जितना ऊंचा होगा उतना ही देश विकास करेगा व विकसित होगा।

"जय ग्राम जय जहां"

Priya (Roll. No. 689)
B.A. Programme
2nd year

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आपदा प्रबंधन

आपदा प्राकृतिक तथा मानव निर्मित क्रियाकलाप है जो मानव को प्रत्यक्ष रुप से प्रभावित करती है, समाज को नकारात्मक रुप से क्षति पहुंचाती है तथा समाज में असंतुलन की स्थिति उत्पन्न करती है। आपदा न केवल मानव को क्षति पहुंचाती है बल्कि देश और क्षेत्र को आर्थिक एवं पर्यावरणीय रूप से भी नुकसान पहुंचाती है। लेकिन मानव की बुद्धिमता तथा तकनीकी तरक्की द्वारा इसका प्रबंधन करना संभव हो गया है।

आपदा दो प्रकार की होती है मानव निर्मित और प्राकृतिक। बाढ़, सुनामी, हिमस्खलन, भूकंप आदि प्राकृतिक आपदाएं है। तथा आतंकवाद, युद्ध, गैस लिंकिंग, आंतरिक तथा बाहरी खतरे मानव निर्मित आपदाएं है।

आपदाओं, विशेष रूप से प्राकृतिक आपदाओं का पूर्व अनुमान कठिन है पर नामुमकिन नहीं। आने वाली आपदा कितने क्षेत्र व जन समूह को क्षति पहुंचा सकती है इसका अनुमान लगाया जा सकता है। तथा इसके प्रभाव को कम किया जा सकता है इसे आपदा प्रबंधन कहते हैं।

"आपदा प्रबंधन, आपदा से उत्पन्न दुष्प्रभावों को कम करने तथा वहाँ के लोगों तथा समाज के सामान्य जनजीवन को पुनः पटरी पर लाने के लिए किसी संगठन/ समाज/ देश द्वारा उठाए गये सुनियोजित कार्यों से संबंधित है।" सविंद्र सिंह

इस दिशा में अनेक राष्ट्रीय और अंतरराष्ट्रीय, सरकारी एवं गैर सरकारी संस्थाएं कार्य कर रही है। जैसे- आई.ए.ई.एम., एन. आई. डी. एम., आई. डी. ई. एस., रेड क्रॉस, वर्ल्ड बैंक आदि।ये संस्थाएं आपातकालीन स्थितियों और आपदाओं के दौरान धन और जन की सुरक्षा को बढ़ावा देने के साथ, परिस्थितियों को सामान्य करने के लिए कार्य करती हैं। आपातकालीन स्थिति में ग्रस्त स्थानों पर कपड़े, खाना, आवश्यकता की अन्य वस्तुएं पहुंचाना, क्षतिग्रस्त स्थानों पर जाकर पीड़ित लोगों की देखरेख करना और पुनर्वास में लोगों की मदद करना आदि।

प्रश्न है कि क्या केवल सरकारी और गैर सरकारी तथा अंतर्राष्ट्रीय संस्थाओं द्वारा आपदा प्रबंधन संभव है? या क्या सामान्यजन इसमें कोई भागीदारी या योगदान दे सकता है? उत्तर है हां। हर मनुष्य इस कार्य में सहयोग कर सकता है। अगर हम सतर्क तथा सावधान रहें, सभी नियमों का अनुसरण करें तो आपदाओं के प्रभाव को कम कर सकते हैं।

Anshu (Roll. No. 785)
B.A. Programme
2nd year

डिजिटल इंडिया

डिजिटल इंडिया से अभिप्राय है लोगों को आधुनिक तकनीकों तथा टेक्नोलॉजी से जोड़ने की मुहिम।"डिजिटल इंडिया "कार्यक्रम का उद्घाटन नई दिल्ली के इंदिरा गाँधी 'इंडोर स्टेडियम' में 1 जुलाई 2015 (बुधवार) को हुआ। इस सम्मेलन का उद्देश्य गांॅव से शहर तक डिजिटल क्रांति लाना है।

देश को आर्थिक व सामाजिक तौर पर सशक्त बनाने हेतु भारतीय सरकार द्वारा लिया गया महत्वपूर्ण कदम है। इसके तहत 55 हजार पंचायतों को शामिल किया गया है। तथा 2022 तक किसानों की आय को दोगुना करने का लक्ष्य निर्धारित किया गया है। इसके अलावा पोस्ट ऑफिसों को सामान्य डिजिटल केंद्र में विकसित करना तथा छोटे शहरों में बिजनेस प्रोसेस आउटसोर्सिंग की योजना तैयार की गई है। इसके अलावा इस मुहिम में अन्य योजनाएं हैं- ई- शिक्षा, ई-स्वास्थ्य, राष्ट्रीय छात्रवृत्ति पोर्टल, ई-हस्ताक्षर आदि है इसमें 2.5 लाख पंचायत समेत 6 गांव को ब्रॉडबैंड से जोड़ने का लक्ष्य निर्धारित किया गया है जिससे भारत के ग्रामीण व छोटे शहरों में साक्षरता आएगी तथा प्राथमिक क्षेत्र(जिसमें कृषि, खन्न आदि आते हैं।) में सुधार होगा।इसके फलस्वरुप फसल पैदावार में वृद्धि होना संभव इत्यादि शामिल है।

क्या है डिजिटल इंडिया का उद्देश्य? जिस प्रकार से विश्व के अन्य देश तरक्की व विकास कर रहे हैं उस लिहाज से देखा जाए तो यह कदम उचित ही नहीं, बल्कि महत्वपूर्ण है। यह जीवन के स्तर को ऊंचा करने में भी मदद करेगा। ग्रामीण विकास के लिए यह अत्यंत आवश्यक साबित होगा क्योंकि जब तक आधार मजबूत नहीं होगा तब तक बिल्डिंग टिकी नहीं रह सकती। इसी प्रकार जब तक देश के पिछड़े क्षेत्र तथा ग्रामों का विकास नहीं होगा अर्थव्यवस्था टिकी नहीं रह सकती।

अंतः भारतीय सरकार का यह कदम विकास व तरक्की के क्षेत्र में उपयोगी साबित होने वाला है। यही कारण साबित होते हैं एक देश को सशक्त और साक्षर बनाने में।

Bhawani Kumari (Roll. No. 785)
B.A. Programme
2nd year
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"स्वच्छ भारत अभियान; एक चुनौती"

"स्वच्छ भारत अभियान" एक व्यापक स्तर पर चलाई गई राष्ट्रीय स्वच्छता मुहिम है जिसके अंतर्गत देश में स्वच्छता लाना एक महत्वपूर्ण मुद्दा है। इस अभियान का भारत के प्रधानमंत्री श्री नरेंद्र मोदी ने, 2अक्टूबर 2014 गाँधी जयंती के दिन, नई दिल्ली के राज घाट पर शुभारम्भ किया। इसका उद्देश्य सफाई व्यवस्था की समस्या को हल करना और देश में बेहतर मल प्रबधंन करना है। 2 अक्टूबर 2019 तक इस मुहिम को पूरा करने का लक्ष्य रखा गया है।

इस अभियान के अंतर्गत निम्नलिखित कदम उठाये गए है- हर घर में शोचालय की सुविधा ,खुले में शोच की प्रवृत्ति पर लगाम कसना, अस्वास्थ्य-कर शौचालय को पानी से बहाने वाले शौचालय से बदलना, नगर निगम के कचरे का पुनः चक्रन और दोबारा इस्तेमाल व सुरक्षित समापन तथा वैज्ञानिक तरीके से मल प्रबंधन, ग्रामीण क्षेत्रों में रहने वाले लोगों में वैश्विक स्तर पर जागरूकता का निर्माण करना, लोगों को स्वास्थ्य कार्यक्रमों से ज़ोडना, भारत को स्वच्छ व हरियाली युक्त बनाना, स्वास्थ्य शिक्षा कार्यक्रमो के माध्यम से समुदायों और पंचायती राज सस्थानों को निरंतर साफ सफ़ाई के प्रति जागरूक करना आदि।

"स्वच्छ भारत अभियान" का लक्ष्य प्रत्येक नगर में ठोस कचरा प्रबंधन सहित लगभग सभी 1.04 करोड घरो को 2.6 लाख सार्वजनिक शौचालय से जोड़ना है। रिहयशी इलाकों में सामुदायिक शौचालय के निर्माण की योजना की गई है क्योंकि इन इलाकों में व्यक्तिगत शौचालय उपलब्ध करना मुश्किल है। इसी तरह कई स्थान पर जैसे बस अड्डों, रेलवे स्टेशन, बाज़ार आदि जगहो में भी सार्वजनिक शौचालय के निर्माण को बढ़ावा दिया जा रहा है। एक खबर के अनुसार दिल्ली मे दक्षिण म्यूनिसिपएल कॉर्पोरेसन ने कहा है कि आम आदमी किसी भी होटल आदि मे केवल 5₹ दे कर शौचालय का इस्तेमाल कर सकता है।

इस मुहिम को प्रोत्साहन देने के लिए प्रधानमंत्री नरेद्रं मोदी मासिक कार्यक्रम "मन की बात" में देश भर के विभिन्न व्यक्तिओ एवं संगठनों के उन प्रयास की सराहना करते है जिससे इस अभियान को सफल बनाने में मदद मिल रही है। इस अभियान के अंतर्गत "माई कलीन इंडिया" कार्यक्रम का भी शुभारंभ किया गया है ताकि देश भर में सफ़ाई कार्य करने वाले लोग अपने कार्य को सबके सामने रख सके। सरकार द्वारा "स्वच्छ भारत ऐप" का भी निर्माण किया है जिसका उद्देश्य स्वच्छता को बढ़ावा देना है- अपने आस पास के क्षेत्र में शौचालय खोजना, कुडे के ढेर का इखट्टा होना की शिकायत व अन्य प्रकार की स्वच्छता संबधीत मुद्दो को हल किया जा रहा है। सरकार ने स्वछता सर्वेक्षण भी आरम्भ किया है जिसमे सभी क्षेत्रों को स्वच्छता के मापदंडों पर आँका जायेगा।

यह एक जन आंदोलन बन गया है। आम नागरिक भी बड़ी संख्या में आगे आ रहे है। हाल ही में रिलीज हुई एक फ़िल्म "टॉयलेट एक प्रेम कथा" के अंतर्गत ग्रमीण क्षेत्रों के लोगों के मन में शौचालय के प्रति बुरी मानसिकता को अच्छे ढंग से दर्शाया गया है। गैर सरकारी सस्थांन भी बड़ी संख्या में लोगों के साथ जुड़कर इस अभियान को सफल बनाने की पूर्ण कोशिश कर रहे हैं। परंतु यह एक लंबी लड़ाई है जिसमे निरंतर कार्य करने की जरूरत है। स्वच्छता और उसके महत्व को लोगों की सोच से जोड़ने का प्रयास निरंतर करना होगा।

"अगर चाहते हो खुशी की भरमार।
तो स्वच्छ रखो घर बार।।"

"देश को अगर है बढ़ाना।
तो स्वच्छता को जिंदगी मे जरूर है अपनाना।।"

Manisha (Roll. No. 659)
B.A. Programme
2nd year
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माँ जीवन दो

एक माँ की कोख से पैदा हुए,
इतना ज्यादा दर्द उठाया उसने।
अपने शरीर के अंगो से,
दोनो जिस्म बनाये उसने।।

फिर उस माँ के मन माँ में,
अंतर क्यों आया।
गर्भ में ख़त्म करूँ लड़की को ,
माँ के मन को यह क्यों भाया।।

माँ-माँ करती वो बच्ची,
गर्भ से उसे यू बुलाती रही।
ना मुख से कुछ बोल सकी,
और माँ को ये बताती रही।।

तेरी माँ भी ऐसी होती तो,
तू धरती पर आति क्या।
माँ बनने का सौभाग्य ,
तू भी कभी पाती क्या।।

मैं काटा नहीं, एक फूल ही हूँ,
जो तेरी बगिया मे महकुगी।
तेरे आँगन मे एक दिन ,
चिड़िया बनकर चहकूगी।।

मैं बोझ नहीं, मैं फाँसी नहीं,
मुझे फूल अभी बन जाने दो।
मुझे मत मारो , मुझे मत मारो ,
मुझे इस दुनिया मे आ जाने दो।।

Rabina (Roll. No. 723)
B.A. Programme
3rd year

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Word Puzzle

Give one word which has both the meanings-

1. Mountain range and a brand of Mineral water

Answer……

2. Coastal landform and human anatomy

Answer……

3. A Religious city and associated with mouth freshener

Answer…..

4. Facilitates water transportation and a type of drink

Answer……

5. A small narrow river and a continuous flow of data

Answer……

6. Landform made by river and Name of an airline

Answer……

7. An organized political community and a particular condition

Answer ……

8. Name of a planet and the substance of land surface

Answer ……

9. A drainage pattern and a structure of latticework

Answer ……

10. Pieces of Earth's lithosphere and a flat dish

Answer ……

From the Editors

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QUIZ

1) The term ‘Abyssal’ refers to
   a. Inner most part of the earth.
   b. Organism found in the shallow water zone of the seas.
   c. Depths or bed of the ocean.
   d. None of the above.

2) The transport of warm air toward the poles and cold air toward the equator is due to
   a. The temperature gradient
   b. The development of waves
   c. The latitude difference
   d. The longitude difference

3) The texture of a soil refers to
   a. The size distribution of mineral particles composing the soil.
   b. The distribution of mineral particle in the soil.
   c. The crystal distribution in soil
   d. None of the above.

4) The ‘Suez Canal’ connects the
   a. Baltic Sea and the Caspian Sea
   b. Mediterranean Sea and Red Sea
   c. Red Sea and the Caspian Sea
   d. Caspian Sea and Mediterranean Sea

5) The Zonal soil type of peninsular India belongs to
   a. Yellow soil
   b. Black soil
   c. Older soil
   d. Red soil

6) The river “Jordan” drains into the
   a. Dead Sea
   b. Adriatic Sea
   c. Gulf of Suez
   d. Red Sea

7) Which is the first state to be formed on the basis of language after independence?
   a. Andhra Pradesh
   b. Odisha
   c. Meghalaya
   d. Uttar Pradesh

8) The oldest mountains in India are
a. Aravallis
b. Vindhya's
c. Satpura's
d. Nilgiri hills

9) Which one of the following is the correct sequence of the given Indian cities in the deceasing order of rainfall?
a. Kochi-Kolkata-Delhi-Patna
b. Kolkata- Kochi-Patna Delhi
c. Kochi-Kolkata -Patna-Delhi
d. Kolkata- Kochi-Delhi-Patna

10) Which lake one third in Indian Territory and rest in Tibet (China)?
a. Lake Wular
b. Tso Morari
c. Tso Kar
d. Pangong Tso

11) An example of intra-plate volcanic activity is
a. Himalayas
b. Island arcs
c. Alps
d. Hawaiian islands

12) Wheeler Island is located off the coast of
a. Gujarat
b. Nicobars
c. Orissa
d. Tamil Nadu

13) Lake Pachpadra is in
a. Rajasthan
b. Jammu and Kashmir
c. Manipur
d. Assam

14) The line of maximum depth of a river channel is called
a. Slope
b. Basin
c. Thalweg
d. Face

15) Which of the following rivers have to cross an extensive desert area before it reaches the sea?
a. The Amazon
b. The Mississippi
c. The Hwang Ho

d. The Colorado

16) Himalayas were formed as a result of which type of plate movement
a. Continental- Continental
b. Continental- Oceanic
c. Oceanic- Oceanic

17) Name the feature formed by reverse fault
a) Horst
b) Batholith
c) Rift Valley
d) Inselberg

18) Match columns

a. Endrumpf	i. Constructive margin
b. Convergent boundary	ii. Short wave
c. Incoming solar radiation	iii. Destructive margin
d. Divergent boundary	iv. End product of Penck cycle
e. Outgoing radiation	v. Long wave

a) iv-iii-ii-i-v
b) iv-i-v-iii-ii
c) iv-v-ii-i-iii
d) iv-iii-ii-v-i

19) Which one of the following drainage patterns is typically associated with fold mountain belts?
a. parallel
b. rectangular
c. trellis
d. Dendritic

20) Geostrophic wind represents balance of
a. Pressure Gradient & Centripetal force
b. Pressure Gradient & Centrifugal force
c. Centrifugal force & Centripetal force
d. Pressure Gradient & Coriolis force

Shefali (Roll. No. 717)
B.A Programme
2nd year
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Find the Words

The table given below has 10 words associated with ECOSYSTEM.

Find them……

a	c	t	r	o	p	h	i	c	q	e	d	x	c	c	v	f	x	d	c	d	s	d	j	h
s	b	v	f	a	z	x	s	t	r	r	w	q	l	p	o	i	u	m	n	b	h	d	l	e
l	i	c	h	e	n	s	u	m	g	g	y	r	m	r	w	y	i	u	p	l	r	g	d	r
s	d	e	r	t	m	h	h	t	r	j	w	s	s	d	t	i	m	i	k	l	m	h	v	b
a	s	f	o	o	d	w	e	b	w	q	r	t	y	u	d	o	p	l	k	j	h	g	f	i
f	d	s	a	l	z	x	c	v	b	n	m	f	q	w	e	r	t	y	u	i	i	o	o	l
s	d	f	g	i	g	h	j	k	l	m	n	b	v	c	x	z	a	s	d	f	g	h	j	o
k	l	p	o	g	i	u	n	u	t	r	i	e	n	t	s	y	t	r	e	w	q	w	q	r
a	s	x	c	o	d	e	r	v	v	b	n	m	k	j	h	g	f	d	d	s	a	a	x	e
q	e	q	w	t	w	e	s	s	c	d	f	c	v	e	s	d	f	g	h	j	h	n	n	s
b	n	m	k	r	j	k	l	h	h	o	i	u	y	n	t	r	l	j	n	b	v	j	k	l
a	s	d	f	o	g	h	j	k	l	e	c	o	s	y	s	t	e	m	p	i	u	y	r	e
a	w	r	e	p	q	w	e	t	y	u	i	r	o	p	l	m	n	b	v	c	x	z	a	s
b	z	x	c	h	c	v	b	b	n	m	l	g	p	y	t	r	e	f	g	h	n	j	k	l
i	z	x	c	i	b	n	n	m	k	h	j	a	a	s	d	f	d	f	s	w	e	r	t	h
o	s	d	f	c	t	y	y	u	k	i	l	n	x	x	a	x	c	s	g	h	j	k	l	o
t	u	i	o	p	l	k	j	n	n	h	b	i	g	f	d	e	g	g	b	c	c	f	d	d
i	f	d	f	g	s	d	f	g	h	j	f	s	f	d	g	j	j	k	l	o	o	l	p	o
c	f	g	h	j	k	b	i	o	t	i	c	m	w	e	r	t	y	u	i	o	n	p	y	j
a	q	w	s	x	e	d	c	r	f	v	v	s	f	g	t	h	y	b	n	m	s	n	j	k
c	x	x	f	g	t	m	n	k	j	i	b	d	d	g	g	j	j	h	g	v	u	d	f	v
x	o	p	l	h	g	d	j	n	n	b	v	v	t	y	u	u	i	p	o	l	m	k	j	h
g	f	s	d	a	p	o	i	u	y	t	r	e	w	q	i	i	j	h	f	d	e	s	a	y
a	r	t	i	o	p	l	s	h	g	g	p	l	a	n	k	t	o	n	s	w	c	x	b	r
v	c	q	e	r	t	y	i	u	h	t	g	f	d	e	e	q	w	q	s	a	s	z	x	x

Yashasvi (Roll No. 785)
B.A. Programme
2ND year

ACADEMIC ACHIEVERS

The following girls were awarded 1st prize on Annual Day for their brilliant academic achievement for Academic session, 2015-2016.

TWINKLE BHARADWAJ, 1ST YEAR

SWATIPRIYA, 2ND YEAR

SPORTS

Meet the members of our college-

VOLLEYBALL team-	NEELAM, 3RD YEAR
	AARZOO, 3RD YEAR
HOCKEY team-	VISHAKHA, 2ND YEAR
HANDBALL team-	MEENA, 1ST YEAR
	MEHAK, 1ST YEAR
BASEBALL team-	POOJA, 2ND YEAR
	BABITA, 1ST YEAR
	KARISHMA, 1ST YEAR
KABADDI team-	KIRTI, 1ST YEAR

NCC

Following the motto "UNITY AND DISCIPLINE"-

SONAM SAROHA, 2nd YEAR

DANCE

Winning hearts with her graceful moves-

NIKHILA JOSHI, 2nd YEAR, member of college Dance Society "THIRKAN"

DRAMA

Expressing emotions through their acting-

USHNA PARVEEN, 3rd YEAR, President of Drama Society “NAVARANG”

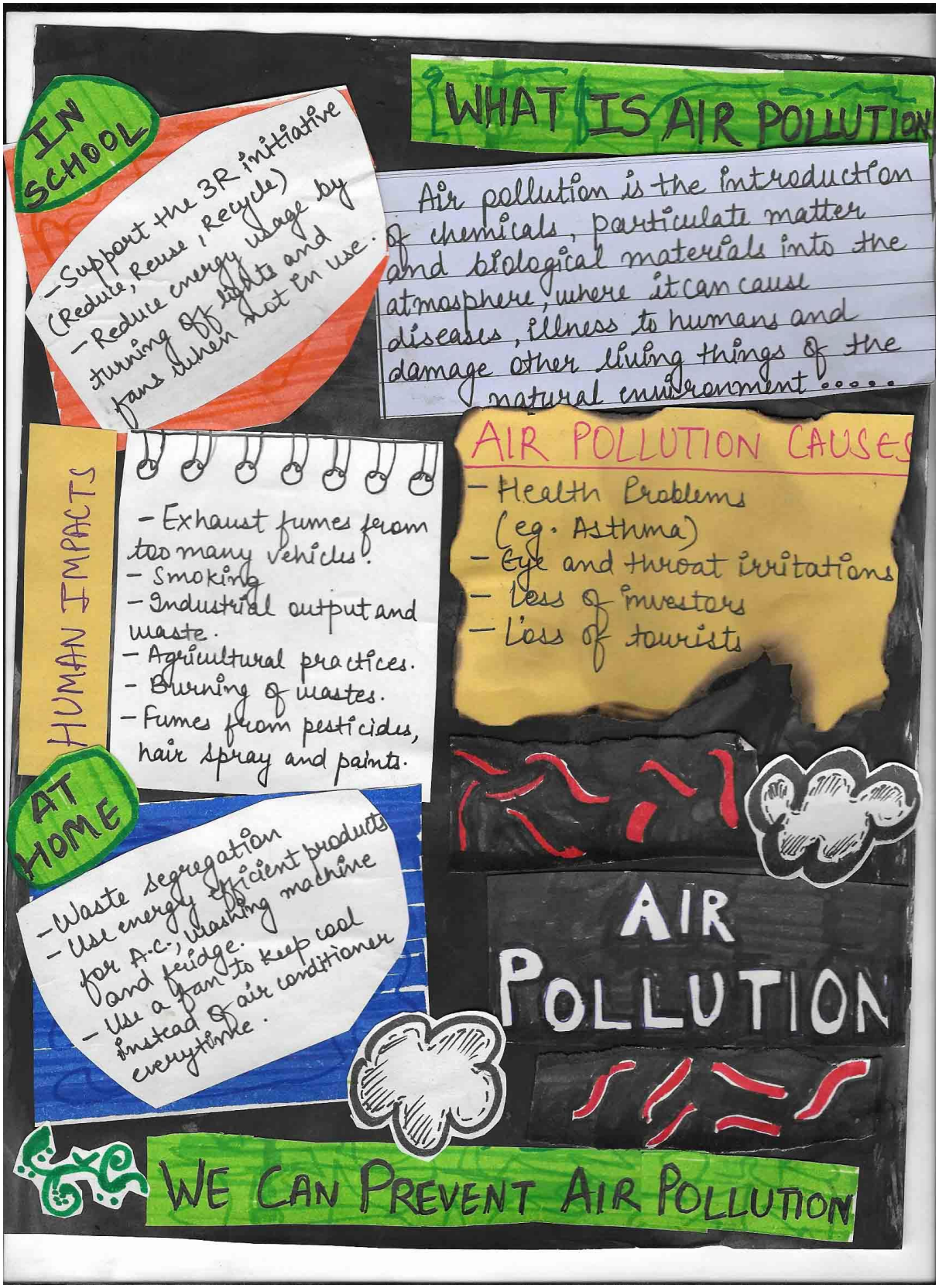
PRIYA, 2ND YEAR

MANISHA, 2ND YEAR

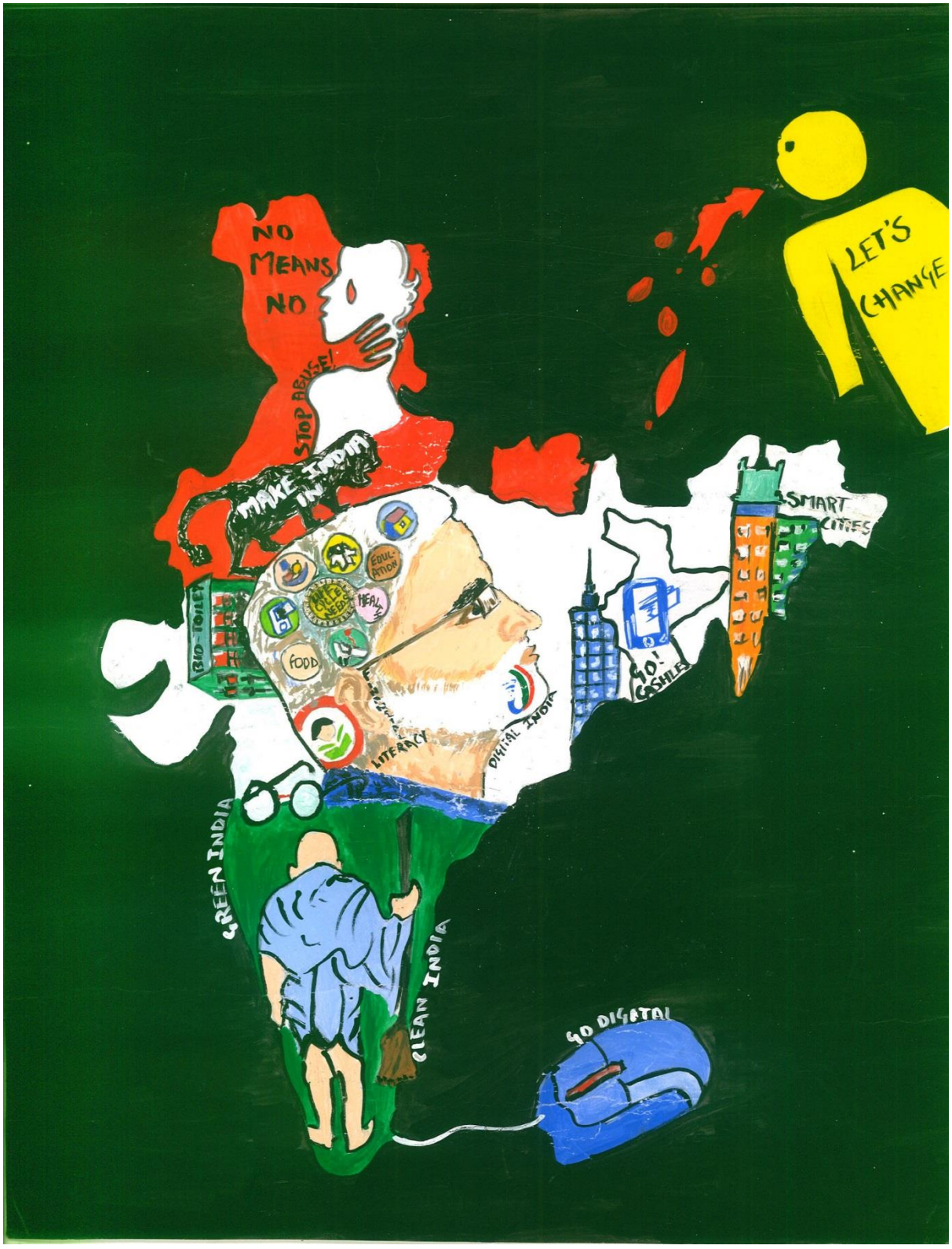
ANSHU, 2ND YEAR

Expressing the theme through paints-

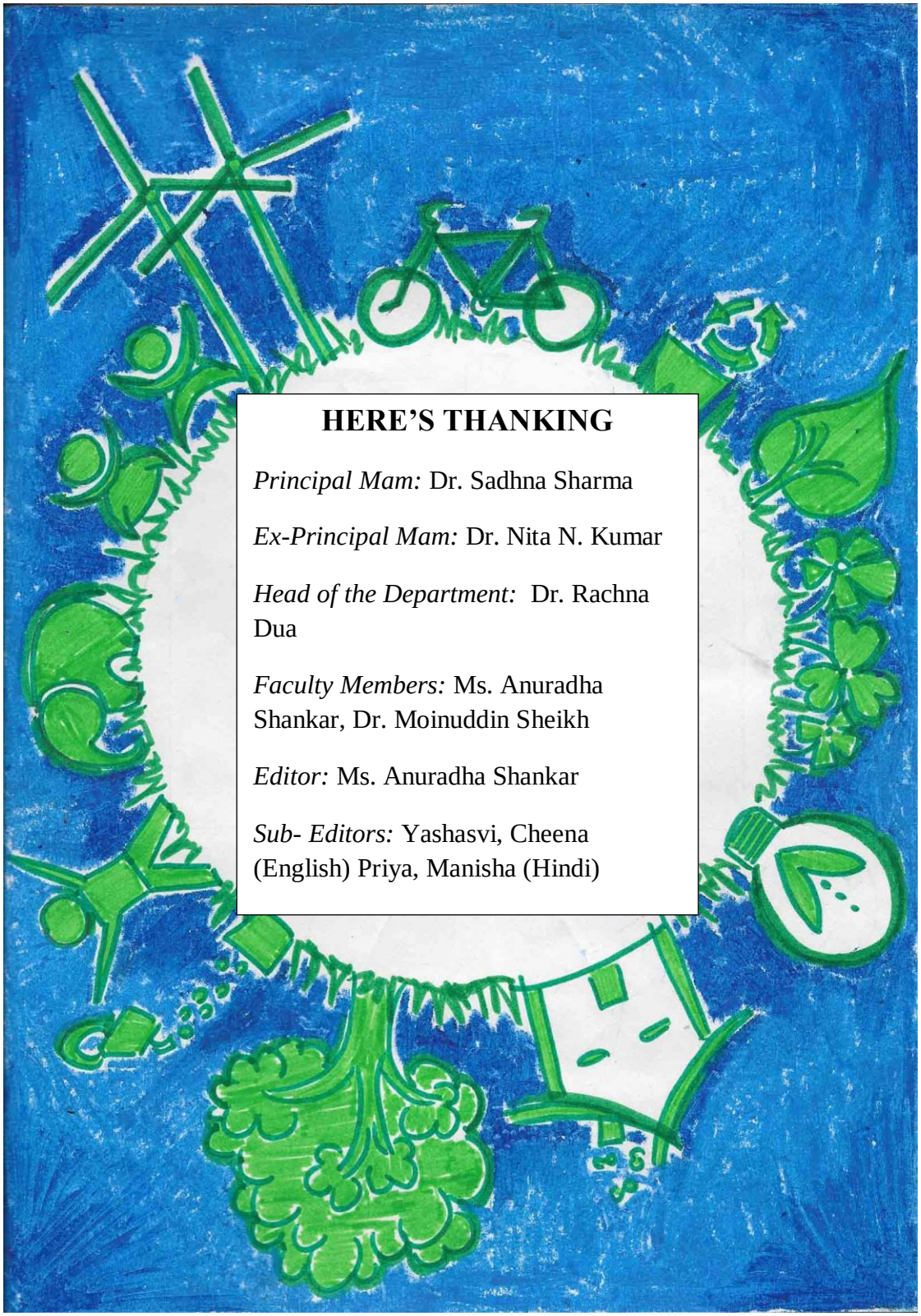
Priya (Roll. No.689)
B.A Programme
2nd year



Shivani (Roll. No. 628)
B.A Programme
2nd year



Anshu Tyagi (Roll. No. 822)
B.A Programme
2nd year



HERE'S THANKING

Principal Mam: Dr. Sadhna Sharma

Ex-Principal Mam: Dr. Nita N. Kumar

Head of the Department: Dr. Rachna Dua

Faculty Members: Ms. Anuradha Shankar, Dr. Moinuddin Sheikh

Editor: Ms. Anuradha Shankar

Sub- Editors: Yashasvi, Cheena (English) Priya, Manisha (Hindi)

Bhavya Gahlot (Roll. No. 550)
B.A. Programme
2nd year

We will need diversity of thoughts inorder to bring changes around us.

Cover Page by Reetika, 3rd Year