

HARIT KHABAR

September, 2022



46th HCL Day
a special coverage on page 3



An initiative of HCL Foundation and World Comics India



Water Crisis Looming in the Horizon

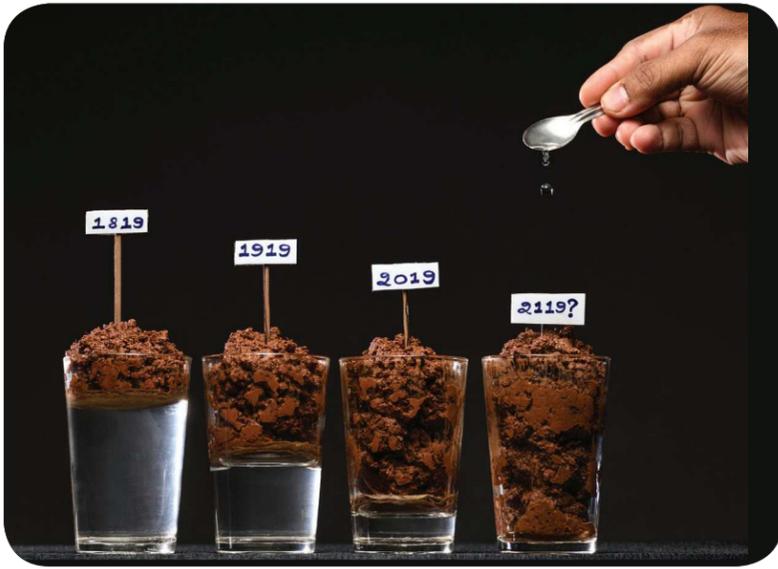


Photo: iStock

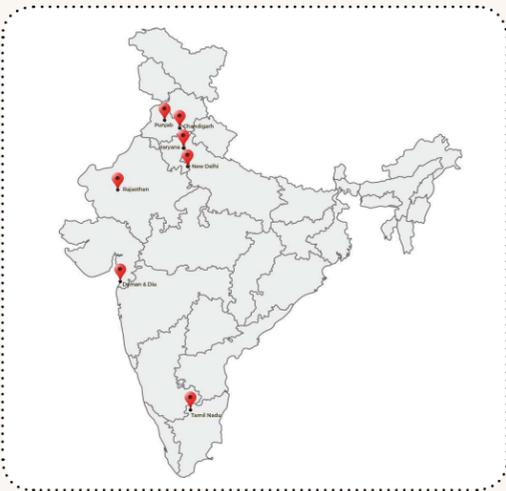
Every year around 200 times more groundwater is extracted from the earth than oil – International Groundwater Resources Assessment Centre (IGRAC)

Groundwater is the most abundant source of freshwater on earth. It accounts for 99 per cent of Earth's freshwater and fulfils the everyday water needs of about 50 per cent of the world's population according to IGRAC.

In the Indian context, this hidden resource becomes even more important as more than 60 per cent of irrigated agriculture and 85% of drinking water supplies in India are dependent on groundwater according to World Bank. This also makes India the largest user of groundwater in the world. Our dependency on groundwater is increasing day by day. And because we have insufficient data and insight into the availability, current state and use of groundwater, this ever-increasing dependency is likely to make us vulnerable to a water crisis in the future.

While the issue of groundwater is becoming serious day by day, some solutions are also emerging from the grassroots. Various HCL Foundation partner organisations are working towards pond rejuvenation that does not only recharge groundwater but helps communities find a way to manage the water crisis efficiently.

Groundwater becoming Unsafe?



For millions of Indian families living in rural and urban areas, groundwater serves as a decentralised source of drinking water. However, this resource is not safe now. According to various studies, an increasing number of aquifers are reaching unsustainable levels of exploitation. According to Deep Wells and Prudence, a World Bank report, if the current trend of exploitation continues, 60

per cent of all India's aquifers will be in a critical condition in the next 20 years. According to Central Ground Water Board 2020 data, the block-wise groundwater resource assessment in India shows that out of the 6965 blocks, the state of groundwater is safe in 4427, over-exploited in 1114, critical in 270, semicritical in 1057, and saline in 97 blocks.

While the overall picture does not seem scary for now, there is a rising concern for states and UTs like Chandigarh, Daman & Diu, Delhi, Haryana, Punjab, Rajasthan and Tamil Nadu where the status of groundwater in most of the blocks is over-exploited.

Heavy Metals making matters worse

Groundwater in India is significantly contaminated by heavy metals as per recent data given by Bishweshwar Tudu, the Minister of State for Jal Shakti in the Rajya Sabha. What makes matters worse is that there are 14,079 iron-affected, 671 fluoride-affected, 814 arsenic-affected, 9,930 salinity-affected, 517 nitrate-affected and 111 heavy metal-affected habitations in the country.

The below table shows the number of districts where these heavy metals were found -

Heavy Metal	Districts Found
Arsenic	209
Uranium	150
Lead	176
Iron	491
Cadmium	29
Chromium	62



Photo Courtesy: Ramveer Tanwar

This photo is from Village Khan Chandpur, Kanpur Dehat, Uttar Pradesh. This water is contaminated with a cancer-causing heavy metal called Hexavalent Chromium, or Cr VI.

HCL Partners Turning the Tide

Recharging Groundwater

The pond rejuvenation work being executed by **HCL Foundation** partner NGOs has helped to recharge ground water levels. In Gautam Buddha Nagar, Noida, the efforts of **Green Yatra** and **Ramveer Tanwar** have helped to revive eight ponds since 2019.

These eight ponds have a total area of around 10 hectares. Other than recharging the groundwater level, these ponds have also benefitted in the revival of biodiversity, removing



layers of plastic and improving livelihood opportunities for communities through lotus farming, fish farming and water nuts farming", as told by Ramveer Tanwar.

The changing face of Salempur pond

My Pond My Duty



NEER Foundation, has been working in the field of water conservation and rejuvenation since 2001 and has renovated hundreds of ponds and erected dozens of rainwater harvesting structures.

The foundation has assisted in the drafting of the Uttar Pradesh Government's Pond Development Authority. For the revival of ponds, programs like 'Talab Utsav' and 'My Pond-MyDuty' are being conducted by the foundation.

A Positive step for the Community

ActionAid Association has begun with the rejuvenation of a pond based in Village Khandera. The pond is spread over an area of 1.467 hectares and is the second out of the four ponds that the association will rejuvenate in the year 2022-2023 with the support of the HCL Foundation.

These four ponds are spread over an area of 3.637 hectares and after rejuvenation, they will have a collective recharge potential of about 1,10,85,286.694 litres of water per year.

The work will also prove to be a positive step for the community as a total of 15,437 individuals from the four villages will be benefitted from the move.

Dewatering of a pond based in village Khandera

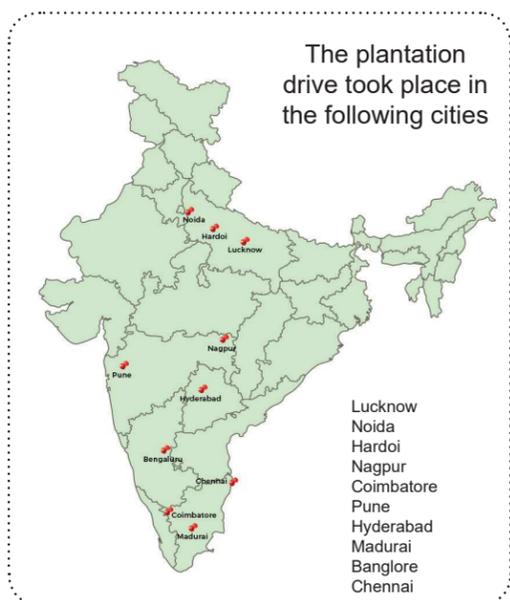


Pledging to make Earth Green

It was on August 11, 1976, that Mr Shiv Nadar led a team of five people and established HCL. The objective was to make computer hardware easily accessible to Indian consumers. HCL has now completed 46 years of compassionate hard work towards nation-building.



To mark the day, HCL Foundation, the CSR arm of HCL technologies, planted 46,000 saplings across 11 cities in India. The celebration was joined by HCLites in all 11 cities. The celebration is a perfect example that showcases how commitment toward people and the planet is deep-rooted within the HCL culture. With every milestone, their resolve to meet the Sustainable Development Goals and National Missions continues to be strengthened.



The ethos of responsibility and respect towards people and the planet can be seen in every HCLite.



Preserving our Ozone Layer



Photo: iStock

World Ozone Day is celebrated on 16 September to commemorate the day when the Montreal protocol was signed.

Humans were long under the misconception that the process of “development” is proceeding rather smoothly. Then, their bubble burst in the mid-1970s when scientists realised that the Ozone layer is depleting due to human activities. The matter became worse when scientists discovered a ‘hole’ in the ozone layer above Antarctica in 1985.

Shocked by this, global leaders, politicians and international organisations started looking for a sustainable solution that could lead to preserving our dearest ozone layer. The adoption of the Vienna Convention for the Protection of the Ozone Layer in 1985 followed by the Montreal Protocol on Substances that deplete the Ozone Layer in 1987 were the steps in that direction.

Our Natural Sunscreen

The ozone layer is an invisible protective shield that is found in the stratosphere (15 to 35 kilometers above the earth’s surface) and is vital for life on earth. It acts as a natural sunscreen and shields us from the harmful ultraviolet (UV) radiation emanating from the sun, especially the UV-B that causes sunburn.

Life on Earth at Risk

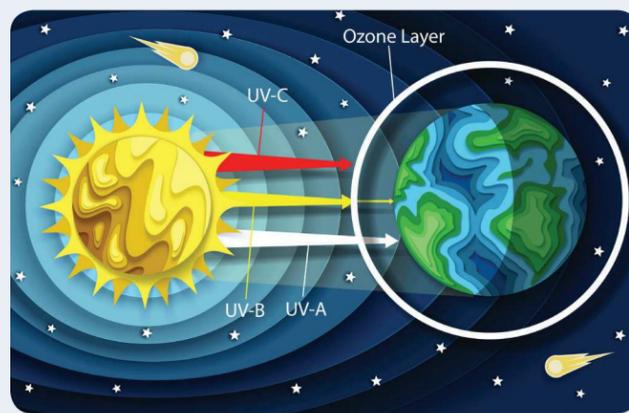


Photo: iStock

- Overexposure to UV-B radiation can cause skin cancer and cataracts.
- A 10 per cent reduction in stratospheric ozone might reduce plant production by about 6 per cent
- Increased levels of UV-B can disrupt the marine ecosystem.
- Changing levels of UV-B also affect the cycling of nitrogen and other chemicals in the environment which could exacerbate air pollution.

Source – UNEP

BIOFUEL - AN ALTERNATIVE FORM OF ENERGY

Today, fossil fuels such as coal, oil, and gas play a prominent role in the global energy demand. They result in over 75 per cent of global greenhouse gas emissions and contribute to nearly 90 per cent of all carbon dioxide emissions according to the United Nations. To envision a safer planet for future generations, we must look toward alternative forms of energy such as biofuel.

Fuel from Organic Matter

Biofuel is an umbrella term that defines any fuel made from organic matter such as plant matter, microorganisms, or animal waste. Biofuels are divided into three categories depending on their origin and production technologies.

- 1) First Generation (1G) are conventional biofuels and are made up of consumable food items that contain starch, sugar, or vegetable oil.
- 2) Second Generation (2G) biofuels are produced from non-food feedstocks such as wood, organic waste, forest/industry/agricultural waste etc.
- 3) Third Generation (3G) biofuels, also known as algae fuels use algae as the energy source. They are more energy dense and are completely renewable.

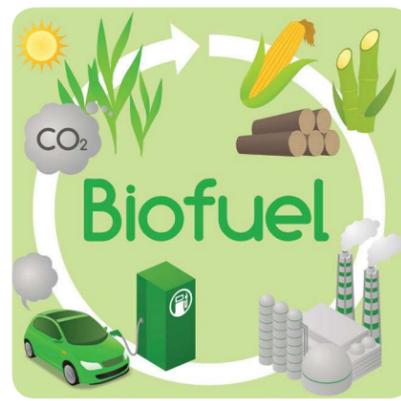


Photo: iStock

Fun Fact

Rudolf Diesel, the inventor of the diesel engine, successfully ran a mechanical engine with Peanut Oil in 1883 and opened the door to a new possibility - replacing fossil fuels with sustainable options.

Food vs Fuel

Since First Generation biofuels use food items to produce fuel, they pose a threat to overall food security and food prices. Since 2019, the U.N. Food and Agriculture Organization’s Food Price Index has increased by 58 per cent to an all-time high, while prices of wheat and maize have doubled.



Photo: iStock

Further, according to the World Food Programme, the number of people facing acute food insecurity has more than doubled over this period and 44 million people in 38 countries are at risk of famine. Indeed, it is alarming.

Ethanol - A viable Alternative

India got a 2G ethanol plant at Indian Oil Corporation’s Panipat refinery in Haryana on the occasion of World Biofuel Day 2022 i.e August 10.



Photo: Hindustan Times

The overall objective is to cut air pollution in the Delhi-NCR region caused by stubble burning in Haryana. It aims to utilise about 2 lakh tonnes of rice straw (crop residue/parali) annually to generate around 3 crore litres of ethanol per year.

India, the Hotspot of Human Animal Conflict

Photo: Sharad Sharma



In our relentless pursuit of development and urbanization, we seem to have forgotten that humans are not the epicenter of life on earth. We share our space with a variety of species on earth. However, without respecting their boundaries, we have shamefully encroached on their land. Today, we have in front of us a

jungle of concrete that has destroyed wetlands, grasslands, etc. resulting in a huge loss of habitat for a variety of wildlife.

This habitat loss has far greater consequences than one can imagine. It results in an ever-increasing human-animal conflict. India has become the hotspot of human-animal conflict and hundreds of people are affected by it annually. According to the Ministry of Environment, Forests, and Climate Change, 125 humans died in conflict with tigers between 2018-2020 and 1,503 humans died in the human-elephant conflict between 2018-19 and 2020-21. These numbers are bound to increase if we do not respect their boundaries and continue encroaching on their land.

Responsible Kite Flying



Imagine being a bird, flying free in the open skies and suddenly out of nowhere a single string of thread, hanging from a branch, takes it all away in a second! This is what 'manjha' does to our birds. To tackle this issue that curtails their freedom, **Avian and Reptile Rehabilitation Centre (ARRC)** with the support of the HCL Foundation, initiated a 'Manjha Cleanup Drive' at Hennur Biodiversity Park, Bengaluru, on the occasion of India's 75 years of Independence.

ARRC team members celebrated the day by spreading awareness about the impact 'manjha' has on urban wildlife. By the end of the day, the team removed 'manjha' from 27 trees. The team also observed that compared to last year when they conducted a similar drive at the same location, there is now much less manjha out there.



This event was a part of the 'Responsible Kite Flying' project of the HCL Foundation.

Caught Red-Handed!

Airport authorities along with the forest department and police confiscated an unauthorised shipment of Indian Star Tortoises from illegal smuggling across international borders. A total of 960 tortoises were seized. Famous for yellow and black patterns on the shell, these tortoises often suffer from illegal pet trading. This news comes as no surprise as 'wildlife trade' is a widely prevalent phenomenon that affects a variety of local wildlife species.



Wildlife Rescue and Rehabilitation Centre (WRRC) in collaboration with HCL Foundation is working towards the rehabilitation of such rescued wildlife. These tortoises were released into a large enclosure and will be kept under observation before eventually being released back into the wild by the WRRC team. A protocol set by the Karnataka Forest Department is already in place regarding their release and all releases will be directly monitored by the department.

Tree to Pole

AMRITA SHINY XAVIER
SIP MEMORIAL TRUST



This comics was created by Amrita, an active staff member of HCL Foundation Partner Organisation -SIP Memorial Trust. It was created during a workshop organised by World Comics India in Chennai on Environmental Education.

Academic Institutions, a haven for birds!

Indian academic institutions are always in the news for a variety of reasons, however, one would have never thought that they would ever be in limelight because of the birds spotted in the campuses.

Yes, researchers from the Wildlife Institute of India (WII), Dehradun observed that academic campuses in India reported 779 bird species, with an average of 88 species per campus.

The species included five critically endangered, seven endangered, 17 vulnerable and 33 near-threatened species.

Out of all the universities, Wildlife Institute of India and Forest Research Institute of India stood out as the most avian-rich campuses with 373 and 356 bird species, respectively.



Rufous Treepie and Jungle Babbler clicked at Bhimrao Ambedkar Marathwada University, Aurangabad. Photo by - Sharad Sharma

Celebrating the First Anniversary of Urban Forests



Thuvakkam and the HCL Foundation celebrated the first anniversary of their urban forest in Kasturba Nagar (MRTS), Chennai in August 2022. In an initiative to increase the green cover in Chennai, they planted 7000+ saplings in an area of

33,000 square feet last year. The celebration was graced by the presence of Hon. Dr Thamizhachi Thangapandian, Member of Parliament, Chennai South. HCL Foundation team members, volunteers, students and the Thuvakkam team were also present at the celebration.



Renewable Energy Awareness Drive

To raise awareness about renewable energy in marginalised communities, **CARE India's** project Bachat, supported by the HCL foundation celebrated Akshay Urja Diwas on August 20th. Renewable energy is created from sources that naturally replenish themselves – such as sunlight, wind, water, biomass, and geothermal (underground) heat and it doesn't produce any greenhouse gases or other pollutants when generating electricity.



Creating Awareness on Waste Segregation



Project:
Chakachak Mitra
Noida, U.P.

To sensitize the communities toward the significance of source waste segregation, **Samvedna Development Society** implemented the Dustbin Distribution activity at Chaprauli, Mangrauli & Gulawli villages of Noida, under the Chakachak Mitra project of HCL Foundation.

Cleaning our Coastline



Swachh Sagar Surakshit Sagar program officially kicked off on 17 September on the occasion of the International coastal cleanup day. The program was inaugurated by Inspector General AP Badola Commander Coast Guard Region (East). **TREE Foundation** along with volunteers from HCL Foundation,

Loyola College and Guru Nanak College joined the coastal clean-up drive.

School Kitchen Garden



Students of MAK Azad school, Nagpur visited the Wankhede school kitchen garden project. Green ambassadors of Wankhede school gave them a briefing. This event was initiated under the Environmental Education project

by **Aroha NGO** with the support of the HCL Foundation.



Painting a new Animal Enclosure

Enthusiastic HCL volunteers helped the **Avian and Reptile Rehabilitation Centre**, Bengaluru team to paint a new animal enclosure. Despite a long commute and scorching sun, the volunteers cheerfully pushed ahead with the paint job. Their smiling faces and paint-covered hands at the end of the event reflected their commitment to a good cause.



Clean Noida Run



This World Cleanup Day (17th September), **HCL Foundation** and Noida Authority joined hands together to organise the Clean Noida Run. The event aimed to unite people in large numbers and spread the message of cleanliness far and wide.

Training Gardeners on Horticultural Composting

Under the HCL Clean Noida project, second city-level capacity-building training on horticultural composting was organised for the gardeners in Noida by the **Centre for Environment Education**.

The training helped gardeners to understand the process of horticultural composting & manage the waste well. Nineteen gardeners from Sectors 28, 31A, 31B, 31C, 40, 41, 47, 49, 52, 56, 71 Sai Apartment, 71 B Block, and 99 Supreme Towers participated in the training.



Environmental Education through Comics



World Comics India organised two grassroots comics exhibitions on environmental issues on 23rd and 24th August 2022. The exhibition was conducted in association with Chetna and Rasta NGOs at their gurukul centres in Noida. Over 150 children attended the interactive sessions and discussed key environmental issues while enjoying reading the comics.

The exhibitions were a part of a project on Environmental Education in association with the HCL Foundation.

About the publication

HCL Foundation and World Comics India's collaborative initiative 'Harit Khabar' is a monthly newspaper that aims to educate people on environmental issues and challenges and raise community participation towards the cause of the environment. This publication has been launched to provide a platform to various partner organizations working in collaboration with the HCL Foundation's distinct flagship programme HCL Harit - The Green Initiative to showcase their work and accomplishments and also to create a network between them. Through Harit Khabar we aim to stir meaningful debates on critical issues concerning our environment and ecosystem, accessibility to environmental education and public participation in decision-making processes in the country.

About HCL Foundation

HCL Technologies implements its Corporate Social Responsibility agenda through its CSR arm, the HCL Foundation. Various flagship programs and special initiatives of the Foundation endeavor to contribute toward national and international development goals, bringing about lasting positive impact on people and the planet through long-term sustainable programs.

About World Comics India

Advancing Grassroots Comics as an alternate tool of communication to local communities, World Comics India has been continuously working for the past 20 years. Many successful mass campaigns have also been organized using this medium of communication.

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