

HARIT KHABAR

July, 2022



Read on page 3 -
How The ghost of desertification is turning into a monster.



Mangrove, The Green Coastguard



Photo: i-stock

When you think of forests, what is the first image that pops up in your mind? Have you ever wondered whether forests can be partly on land and partly on water? If not, then you should be curious about mangroves. But, before we go ahead, here is a quick and important piece of statistics for you - the world is losing these unique forests at a much faster rate than overall global forests. In a span of twenty years, from 1996 to 2016, the world has lost a net area of 6075 km of mangrove forests says *The State of the World's Mangrove* report 2021 released by Global Mangrove Alliance.

Where Land meets the Sea!



Photo: i-stock

Mangrove forests are forests where the land meets the sea in tropical and sub-tropical regions. The whole ecosystem consists of a variety of trees and shrubs that can survive in the intertidal zone, which is part marine and part terrestrial. Crucial for preserving biodiversity, they support a diverse

fauna, including 341 species that are globally endangered, from seahorses to tigers according to *The State of the World's Mangrove* report 2021. The UN regards the mangrove ecosystem as a rare, spectacular and prolific ecosystem which is a huge contributor to the well-being of the planet and the safety of coastal communities.

A fascinating point about the mangrove forest is that they are salt-tolerant, meaning they can survive in high salinity areas and you can also catch a glimpse of the roots of the trees.

Are we ready to give up?

Considering the greed of humans, it does not come as a surprise that human actions have been a major factor in the disappearance of mangrove forests. The choice is ours, if we do not take immediate action to stop the depletion of mangroves, we would lose out on all the benefits that come along for various communities and the health of the planet.

Mangroves are a blessing for coastal communities as it provides them with resources and livelihood, and also save them from floods, rising sea levels, tsunamis and erosion. Interestingly, a 500-meter mangrove patch reduces wave heights by 50 to 99 per cent notes the UNESCO website. Their ability to act as natural dams has saved 15 million people around the globe from the risk of floods according to *The State of the World's Mangrove* report 2021. In economic terms, they save humans from property damages caused due to floods worth 65 billion USD annually.

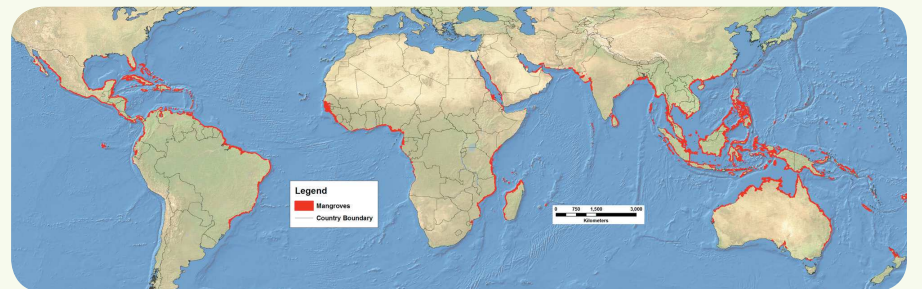


Photo: UNEP

Similarly, our fight to achieve net-zero carbon emissions by 2050 seems improbable without mangroves as they are significant natural carbon sequestrators. They cover only 0.4 per cent of the total global forest estate, yet they possess the quality of sequestering carbon at up to four times the rate of terrestrial forests. Just one hectare of mangroves stores up to 3754 tons of carbon, which is equivalent to removing more than 2600 cars from the road for one year according to the UNESCO website.

The International Day for the Conservation of Mangrove Ecosystem which is celebrated on 26 July every year is a reminder that we need to act immediately to save our mangroves.

Finally, some good news

While the global statistics regarding the depletion of mangrove forests depict a bleak future, there is some positive news from India. The country has been witnessing a constant increase in mangrove forest cover from 4046 sq km in 1987 to 4922 sq km in 2021. Mangrove forest cover in the country is divided into three categories – very dense (29.55%), moderately dense (29.67%) and open mangroves (40.78%).

Data: India State of Forest Report 2021

Mangrove Nursery

Understanding the ecological importance of mangroves, the **MS Swaminathan Research Foundation** is undertaking a project to develop a mangrove nursery at Chinagolapallam, Andhra Pradesh. Till now, they have planted 18,000 seeds in the mangrove nursery.



اللہ کرے



NIDA SHAMS

Allahrakha : In a coastal area, people started to cut down trees. They are also assured by a 'peer baba' (religious guru) that there will be no cyclone in the area for at least next ten years. After few months, a massive cyclone hits the area and everything is destroyed except one house. People wondered how only this house was saved? Was it a miracle or blessings of an elder? they asked. The person whose house was saved points towards the mangrove tree and says - this is the miracle. By Nida Shams (Reading order Right to Left)

Save our land from this ghost!

Emergency! A ghost is haunting the land we live on – the ghost of land degradation & desertification.

The relentless march of the ghost has ruined about 30 per cent of India's total geographical area and made it unproductive, notes the Indian Space Research Organisation's Land Degradation and Desertification Atlas of India 2021. Wandering around the world with fewer restrictions than humans, this ghost has rendered 23 per cent of the land on the planet useless notes the United Nations Convention to Combat Desertification (UNCCD) on its website.

While these statistics are frightening, the picture is and will always remain incomplete without any mention of droughts. Complementing desertification, droughts have proven to be deadly. They have taken around 6,50,000 lives between 1970 and 2019 according to a publication of the UN. While the ever-increasing water scarcity currently impacts two-fifth of the world's population, the future seems even bleaker as droughts are estimated to put 700 million people at risk of displacement by 2030 according to WHO.



Photo: i-stock

What is Land Degradation & Desertification?

Going by the textbook definition, land degradation is the phenomenon of deteriorating productivity of soil in terms of biodiversity and economy. Desertification on the other hand is nothing but land degradation occurring in dryland regions. Climate change and human activities such as unsustainable farming, mining, deforestation, overgrazing by animals etc. are the main causes of land degradation and desertification.

The relationship between land degradation and desertification and climate change is interesting to observe. Climate change is both, a cause as well as a by product of land degradation as degraded land release carbon and nitrous oxide into the atmosphere.

Who will fetch the water?

Mahi



Ringing the Alarm Bells!

The common person would never have thought that the twin problem of desertification and drought can increase the risks of zoonoses outbreaks, but Audrey Azoulay, the Director-General of UNESCO has something new for us. She says, "Desertification and drought, which are a degradation of environmental health, contribute to the collapse of biodiversity and favour the appearance of zoonoses. This is yet another reminder that human health and the health of our environment are deeply intertwined."



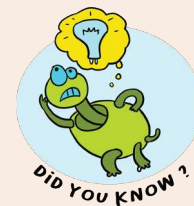
Photo: i-stock

The mention of zoonoses after the occurrence of the Covid-19 pandemic should itself be a good enough reason for the reader to understand the depth of the ghost's arsenal. However, other adverse consequences include damaging various ecosystems such as cropland (rain-fed and irrigated), rangeland, pastureland, forests, and woodlands.

To remind ourselves of the horrors of the ghost and to plan an effective retaliation, the World Day to Combat Desertification & Drought is marked every year on June 17.

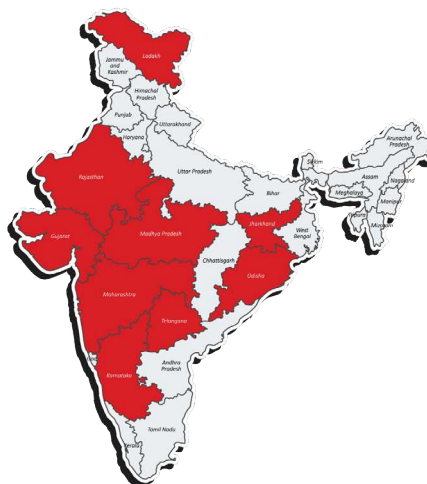
Draconian Drought

- There has been an increase of 29% in the number and duration of droughts since 2000, as compared to the two previous decades.
- Nearly 160 million children are affected by severe and protracted droughts, and by 2040, one in four kids is predicted to be living in places with severe water shortages.
- India's gross domestic product is estimated to have reduced by 2 to 5% as a result of severe droughts.



Source: Drought in numbers, a UN publication

Hotspots of Desertification in India



A scary picture emerges from nine states of India as they contribute to almost one-fourth of the total area that is undergoing land degradation and desertification in the country. These nine states include Rajasthan, Maharashtra, Gujarat, Karnataka, Ladakh (UT), Jharkhand, Odisha, Madhya Pradesh and Telangana. The only positive takeaway from the current status of desertification in the country is that all other states contribute less than one per cent individually with respect to the total geographical area.

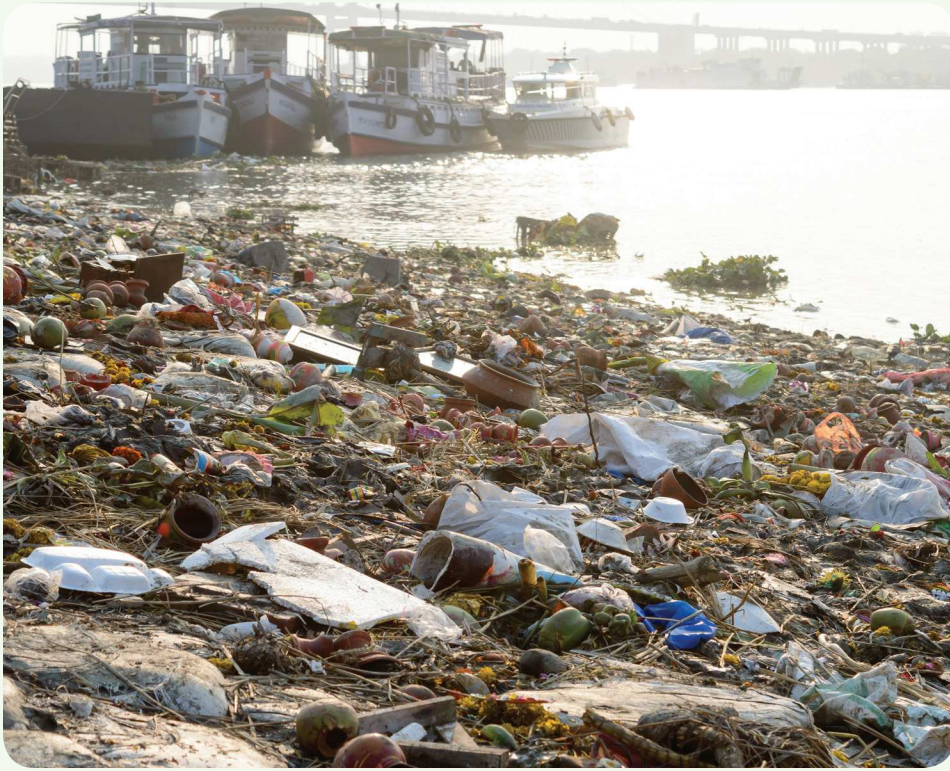


Photo: i-stock

Plastic: More deadly than you know

Nothing in the world is as embedded in modern human life as plastic. You eat from plastic cutlery, you carry around things in plastic bags, you clean your ear with plastic buds, you write from a pen made up of plastic, etc etc. and the list could be endless. The power it holds is unmatched, but does great power come with no responsibility?

If we are brutally honest, plastic has proved to be a ruckus for the planet as 70 per cent of plastic packaging products are converted into plastic waste in a short span. The statistics for India are worrisome as it is the fifth highest plastic waste generator country in the world and in 2019-2020, India generated 34,69,780 tonnes of plastic waste according to the Central Pollution Control Board Annual Report 2021.

If we are to truly understand this problem of plastic pollution, we have to go beyond the conventional thinking of limiting plastic pollution only to a pile of garbage. Yes, the pile of garbage clogs sewers and adds to marine litter, but the adverse consequences it brings in the form of single-use plastic and microplastics needs greater attention.

Use, Throw & Suffer

Use and throw is a popular philosophy followed around the world in different contexts. This philosophy has now taken over the plastic industry as there is a palpable global shift from durable plastics to single-use plastics, notes a report by *Toxics Link*, an NGO. Single-use plastics are nothing but items that are designed to be used only once before they are disposed off or recycled.

With effect from July 1, 2022, the Government of India announced a ban on the manufacture, import, stocking, distribution, sale and use of identified single-use plastic items all across the country.



Photo: i-stock

Why say no to single-use plastic?

If you are of the view that single-use plastics are only bad for the environment, then you are wrong. Yes, it has detrimental effects on the environment but its consequences on our health, and economy cannot be underestimated. As per experts, the ingestion of single-use plastics can damage reproductive organs, lungs, and the neurological system.

On the other hand, the economic costs are huge as well as the total damage to the world's marine ecosystem due to plastics amounts to at least 13 billion USD annually according to the *Toxics Link* report. Another cause for concern is that one of the principal secondary sources of microplastics is single-use plastic bags.

Microplastics in Antarctica!



Photo: i-stock

Have you ever wondered about travelling to the icy land of Antarctica? Well if you have and still have not managed to go there then you should absolutely be jealous of microplastics because they are living your dream. Yes, a recent scientific study published in the *Cryosphere Journal* confirms the presence of microplastics in Antarctic snow.

Microplastics are tiny particles of plastic that are up to 5mm in diameter according to UNEP. They are a result of fragmentation due to natural factors such as sunlight, wind, electric current, etc.

Unknowingly, we consume, inhale, and ingest microplastics daily as per an article by the Indian Express. The article also highlights the horrors of microplastics as it notes that these microplastics can be connected to serious health problems once they have entered our bodies such as hormonal issues, infertility, and neurodevelopmental disorders like ADHD and autism.

Observing current trends and the reach of microplastics, the kids of the future shall not only read 'everything is made up of matter' in their school textbooks but also 'everything is made up of microplastics'. We must work towards stopping this.

Plastic Heist in Noida

Binge-watching is one of the most popular things we do now, and I am sure you must've binged-watched *Money Heist* on Netflix. Taking the theme from the web series and highlighting the recent single-use plastic ban by the government, HCL Foundation's Clean Noida project initiated a plastic heist in Noida on May 7. As a result, a total of 200 kg of single-use plastic was 'stolen' from the streets of Noida by the volunteers.

This initiative was followed by launching a Plastic Exchange Mobile Van to manage plastic waste. Through the mobile van HCL Foundation supported RACE (*Reduction, Awareness, Circular (solutions), and (mass) Engagement*), a statewide initiative by the Government of Uttar Pradesh aimed at making the state single-use plastic-free.



Nature Strikes Back!



Photo: i-stock

We are at war, a war with nature. This war started by unsustainable human activities, has now forced nature to retaliate with huge catastrophes and disasters. A report by the World Meteorological Organisation reveals that disasters related to weather, climate, or water hazard occurred every day on an average over the past 50 years and have killed 115 people daily. If we continue with our unsustainable activities that cause climate change, nature would strike back with more force and this time it could be you in danger.

Assam Under Water

Another year same story! A massive flood hit Assam on June 20 and has caused great inconvenience for the people since then. The numbers from the Assam State Disaster Management Authority are terrifying as almost 30 lakh people have been affected by floods as of July 1, 2022. The most affected area remains Silchar where 90 per cent of the land has been flooded.

According to various sources, a dyke, which is an embankment that prevents flooding, was breached which led the Barak river to cause the deluge. Silchar is also known as the hub of the landlocked Barak Valley and was also hit by a landslide earlier in May. An article in The Hindu notes that 30 to 70 per cent of goods in most shops and warehouses in Silchar were submerged under water.



Photo: NDTV

The deadly flood has taken 173 lives till now and property damages are estimated over 1000 INR crore. While there was water everywhere, the people of Silchar struggled to get safe drinking water.

Tragic Landslide in Manipur



Photo: Tribune India

This year, the monsoon has not been kind to the Northeast. While Assam is flooded, the Noney district of Manipur witnessed a major landslide. The landslide took place at a railway construction site and is believed to have taken the lives of 79 people, with fourteen people yet to be found. What was the reason behind this landslide? A government official told ANI that "incessant rains" are to be held responsible. The statement is true, but experts believe that weak soil and anthropogenic pressure and the way people used the land cannot be ruled out as causes.

A detailed explanation was given by S Ibotombi, a professor from the Earth Sciences Department at Manipur University as he noted that almost all landslides in the hilly states of North East India have been caused due to weak soil constitution, intense fracturing of rocks, steep slopes, thick mantle of waste and excessive rainfall in short duration, as reported by DownToEarth.

Maximum Rain in Maximum City

What is India's financial capital famous for? Street food? Bollywood? Night life? Yes, all that, but how can one forget about the Bombay rains? Reminding everyone how inseparable monsoon and Mumbai are, the rains have once again swamped the city. Relentless rains across the city have caused waterlogging at nearly 20 locations, putting a halt to the fast paced life of the people of Mumbai.

Of the total average rainfall that falls in the city in July (855.7 mm), 69.41 per cent, that is, 594 mm, has already been received by the city in just five days of the month.

News of landslides has also been reported from the city, three houses were damaged and two people have been severely injured by a landslide in the Chunabhatti area. Without any delay, an orange alert was issued in the city by the Indian Meteorological Department.

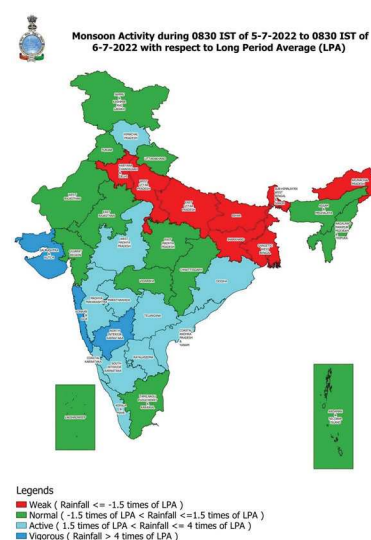


Photo: DNA INDIA

Monsoon Track

The wait is finally over, the southwest monsoon covered the whole country on July 2, 2022.

The distribution of monsoon till July 7, 2022 has also been even as 19 states have received a normal monsoon, 9 in excess, and 1 in large excess. On the other hand, only 7 states including Kerala, Orrisa, Ladakh, Uttar Pradesh, Bihar, Jharkhand and Manipur have witnessed a deficit in rainfall from June 1, 2022 to July 7, 2022.



Source: IMD



Rejuvenating Ponds in Noida

The partnership of HCL Foundation and **Action Aid Association** has proven to be a boon for Gautam Buddha Nagar, Dadri District, UP. Their work of pond rejuvenation, increasing green cover, and sensitizing communities through awareness sessions have and will continue to have a positive impact on the lives of people and also on the health of the planet. In the year 2022, their association has rejuvenated 4 ponds in Gautam Buddha Nagar, Dadri District, UP.

The ponds are spread over an area of 3.637-hectares of land. After rejuvenation, the ponds have a total capacity to hold around 29,28,422.937 gallons of water and the collective recharge potential of about 1,10,85,286.694 litres of water per year. The ponds were accompanied by around 3100 saplings. The project not only helped to revive the local water bodies but also generated employment for the local communities. This would also ensure ownership of the community over the local resources and help maintaining the same in the long run.

Children do their bit



Harit club children did their bit for the *Van Mahotsav* programme of the UP government! A plantation drive organised by **Gorakhpur Environmental Action Group (GEAG)** in Noida on July, 2022 encouraged the children to come forward and plant saplings, adding to the overall greenery of the district.

Harit Upvan

Observing their success with the Harit Upvan in Noida, **Give Me Trees Trust** is now replicating the same experiment in Lucknow. The organisation started the process with the plantation of a number of saplings in the area.



There is no Planet B



Let us remember 'There is no Planet B'. **Thuvakkam** realises maintaining urban forests is as important as developing them. With the help of volunteers, they maintain the Chennaiil Vanam Urban Forest in Chennai.

Sustainable Kite Flying Campaign

HCL Foundation has signed MoUs with Avian and Reptile Rehabilitation Trust (ARRT), Bengaluru, and Animal Warriors



Conservation Society, Hyderabad under the HCL Harit-Animal Welfare sector for a sustainable kite flying campaign.

This will include the emergency rescue and rehabilitation of injured animals and community sensitization.

DEADLY POLYTHENE

POOJA SINGH CHETNANGO

Pinki lives with her family in a village. Everyday, a cow comes at her door.



After eating, the cow goes. Some people shoo away the cow.



One day when Pinki was not at home, the cow waited for hours outside her home. The cow was disappointed and returned back without eating that day.



Removing Weeds!

Environmental Foundation of India restores the Mulachi Kulam in Nellai, Tamil Nadu. Removal of invasive weeds along the boundary is now in progress.



Plantation Drive!



Transforming the land at IIIT Nagpur, **Aroha** is undertaking a plantation drive which is continuing with full force.

Identifying Biodiversity



HCL Harit team conducted a biodiversity workshop training for the **Dhan foundation** team and field staff in Madurai to understand the importance of biodiversity and its



documentation in urban areas. The team understood the identification of vegetation and other biological taxa.

A Rare Honour

Nadiputra Raman Kant of the **Neer Foundation** was awarded the Terry Baker Prize at a global conference organized by the Waterkeeper



Alliance in Washington DC, USA on June 11, 2022. The award was presented by Mr. Mark Yegi, Executive Director, Waterkeeper Alliance.

WATER SOURCE
IS A GREAT RESOURCE



Groundwater is not unlimited,
waterbodies are required to recharge

Out & Published! A Comics Anthology on Environment



What is an appropriate pedagogy method? Do you believe that learners are only containers that need to be filled with knowledge? Or, you are of the view that learners, while learning, can also create content that can be a tool for teaching and raising awareness? This Grassroots Comics Anthology will clear all your doubts!

Adding a new chapter in the bottom up approach to teach & learn environmental education, we bring you a grassroots comics anthology developed by the people and for the people. The comics anthology contains more than 50 comics each addressing local environmental issues developed by teachers and gurukul trainers of various HCL Foundation partner organisations such as Rasta, Chetna, Study Hall Educational Foundation, etc. This anthology is a part of a project on Environmental Education jointly initiated by HCL Foundation and **World Comics India**.

You can visit the link below or scan the QR Code to access the comics anthology.

Or write to us if you need a hard copy of the book at email given in the printline.

<https://hariteducation.com/books/>



Bye-Bye Plastic



A unique rally asking for 'independence' was organised by **Gorakhpur Environmental Action Group (GEAG)** and led by children of Harit Club in Gautam Budh Nagar, Noida in the month of July.

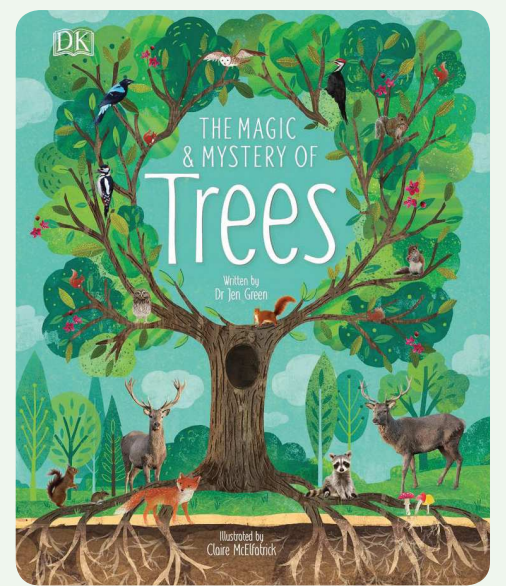
You must be curious as to why were children on the streets demanding independence a month

before the Independence Day. Well, to everyone's surprise, they marched to motivate people to live a life independent of plastic. Holding banners and raising slogans, these children wanted the world to know that, Yes! It's possible to live a plastic-free life!

Know the Magic and Mysteries of Trees

Ever wondered how trees have survived for so many years in a world full of predators? Do they also have the capability to communicate with each other? Well, this book '**The Magic & Mystery of Trees**' will clear all your doubts and enlighten you with spectacular knowledge about trees.

Specially designed for children, this book also gathers the attention of adults because of its groundbreaking explanations of the science of tree communication. Do grab this book for a perfect weekend read!



Here are some fun activities



Ocean Trivia

- How much surface area of the world's ocean does the Indian Ocean cover?

A. 20%	C. 12%
B. 14%	D. 5%
- Marina Trench, the lowest point on earth, is located in which of these oceans?

A. Indian Ocean	C. Atlantic Ocean
B. Pacific Ocean	D. Arctic Ocean
- How much the Indian Ocean contributes to the world's total oil supply?

A. 25%	C. 45%
B. 30%	D. 40%
- Scientists worldwide have predicted by what year the amount of plastic waste in the ocean will outweigh the total weight of fish living in all oceans?

A. 2030	C. 2070
B. 2050	D. 2100
- Madagascar is located in which of the following oceans?

A. Pacific Ocean	C. Indian Ocean
B. Arctic Ocean	D. Atlantic Ocean

Answer

1. A 2. B 3. D 4. B 5. C

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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