

February, 2023

# HARIT KHABAR

Monthly Newsletter featuring Environment Action by HCL Foundation



Special coverage on Sunderbans on page 4&5



An initiative of HCL Foundation and World Comics India



## Promoting Noida as a clean city



Realizing that there is a need for long-term vision to manage solid waste, HCL Foundation has partnered with NOIDA Authority to strengthen the city's waste management system and contribute to making it one of the cleanest cities in the country. Due to the fact that its corporate head-quarters is in NOIDA, HCL has taken it as a critical social responsibility initiative.

As part of the Clean NOIDA initiative, HCL Foundation has been carrying out works and services to implement effective solid waste management in Noida city. This initiative aims to transform the city into a litter and waste free region, covering all Residential Welfare Associations and urban villages. The major focus areas of the project are capacity

building of relevant stakeholders, intensive behaviour change campaigns, awareness drives and technological solutions.

Under this initiative, HCL has launched four projects: Clean Sector Sustainable Cities, Clean Urban Village and Chakachak Urban Village.

The Clean Sector project focuses on training and capacity building of stakeholders, door-to-door campaigns on waste source segregation, E-waste awareness generation and promoting cleanliness and aesthetics of the city through wall arts. E-garbage loaders are also provided to improve the waste collection efficiency and provide technical support for horticulture compost initiatives.

The Sustainable Cities project aims to design sustainable solutions for the city through plastic waste awareness campaigns, installation of city-wide litter bins, promoting cleanliness and increasing the aesthetic of the city through city-wide wall art program. Under this project, High Tech initiative promotes mass contactless cleaning through high suction machines covering Pan Noida. Furthermore, Integrated Control & Command Centre aims to support the ongoing Citizen Grievance Redressal Program and increase effectiveness of internal resources and partners of NOIDA Authority.

Clean Urban Village and Chakachak Urban Village projects aim to transform Noida urban villages into a visibly clean area through community awareness, strengthening community structures to achieve clean and sustainable SWM practices. The projects also focus on establishing integrated solid-liquid waste management for Noida urban water bodies through cleaning and restoring of urban water bodies and source segregation awareness through Chakachak Mitras.



## Green Miracle in the neighborhood

When the Federation of Residents Welfare Association of Sector 34 in NOIDA signed an MoU with the HCL Foundation, they never thought that they would be able to treat waste at source. However, the sector which has 12 apartments and two residential plots with 30,000 population is now an example for RWAs from other Societies in the NCR region to follow.



Dharmendra Sharma, General Secretary of the Sector 34 RWA, who also works in the NOIDA Authority, has been a key agent of this change. "We started out with an awareness campaign making people understand the importance of segregating dry and wet waste," says Mr Sharma reminiscing on the journey. Later, the campaign was extended to domestic helps working in people's homes and to the sweepers. "We gathered them in parks on Sunday morning and sensitized them through nukkad nataks and capacity building trainings."



Since the society comprised one-room to four-room apartments and each one had different starting points, not everyone was quick to transform. "I personally went to people's homes and sensitized them to the issue," says Mr Sharma. Sweepers were asked to discontinue visiting homes of people who still would not change. As garbage started piling up in their homes they had to fall in line!

Such was the amazing power of the campaign that when Mr Sharma and others requested the NOIDA authority to give them permission to set up a biogas plant in the society, it was approved instantly. And thus Sector 34, NOIDA is one of the first RWAs to ensure that waste generated within its premises is treated there and then!

Mr Sharma has a word of advice for RWA's which want to follow suit. "Making people aware is critical," he says. And we must also ensure that everyone falls in line which may not happen instantly. We need to persevere."



## India remains an attractive wintering destination for migratory birds



Sarus Crane (*Antigone antigone*)

Every year, millions of birds from distant lands like Russia, Europe and Central Asia arrive at the wintering grounds in India in the months of September and October.

Over 400 species of migratory birds are reported to visit India annually at this time of the year signifying the beginning of migration. They take nine flyways (including the Central Asian Flyway that covers 30 countries along with India) across the world and some unusual routes during this flight.

Generally birds migrate from the northern hemisphere during the winter season to warmer tropical/equatorial regions. India is considered a preferred wintering destination for several species of birds like Bar headed Geese, Amur Falcons, Black necked cranes, Demoiselle cranes, etc.

As per the "Asian Water bird Census" co-ordinated by the Wetlands International, some migratory birds in the region showed a decreasing trend during the last decade whereas some species indicated a stable population.

The decline in the number of migratory birds is attributed to various factors like wetland reclamation, pollution of wetland through domestic sewage, hunting, trapping in the migratory routes, indiscriminate use of pesticides and fertilisers, reduction of habitat, climate change, etc.



Painted stork (*Mycteria leucocephala*)

### Migratory birds that surprised us this year with their unexpected arrival

1. An **American black vulture**, native to the north-eastern United States, was surprisingly spotted in Delhi (as it generally avoids long distance journeys and does not cross large bodies of water). Experts believe it may have come this far ducking traffickers.



2. The **Long-tailed duck**, a native of European and American continents, was spotted in Kashmir's Wullar Lake after a gap of 84 years. The bird is also on the International Union for Conservation of Nature (IUCN) Red List of Threatened Species.



3. **Hen Harrier**: This migratory bird of prey is native to the UK and is very rarely seen in South Bengal. On February 1, there were two sightings of the bird in Hooghly (in Nasibpur and Haripal).



4. A rare **bar-headed geese** was also spotted at the Kawal Tiger Reserve for the first time. Native to the central parts of India, it typically migrates to the mountain lakes in Central Asia.

### Asian Waterbird Census 2023 reflects worrying trends



The Annual Asian Waterbird Census (AWC) 2023 survey revealed worrying shifts in migration patterns of waterbirds. The survey revealed an increase in migratory birds at some bird habitats like Alappuzha, Yamuna (Delhi), Thiruvananthapuram district and Chilika lake. Whereas, in Kole wetlands of Thrissur, Bhimbandh Sanctuary in Bihar and Hastinapur Wildlife Sanctuary, Meerut the numbers were alarmingly low.

In Ladakh, a total of 52 bird species were observed during the survey (11 species were sighted in Chumathang, 10 in Puga, 21 in Shey, and 10 in Phey along the Indus River). The observations were recorded on the eBird app, which is an online database of bird observations providing scientists, researchers, and amateur naturalists with real-time data about bird distribution and abundance. The total number of species recorded across all the birding sites were 35, out of which 13 species were waterbirds.

### Saving the Great Indian Bustard

The Great Indian Bustard is on the brink of extinction with only 150 of these birds still left (out of which 122 are in Jaisalmer). Till 1980s, the number was 1500-2000. The bird also falls in the 'Critically Endangered' category of the IUCN Red List.

Great Indian Bustard (*Ardeotis nigriceps*)



To address the extinction of the Great Indian Bustard, a committee constituted under the aegis of the Supreme Court suggested that 800 kms (10%) of the proposed power lines in the Thar and Kutch deserts of Rajasthan and Gujarat should be rerouted or made to go underground.

The petition to save the Great Indian Bustard from powerlines and development projects was filed in the Supreme Court in 2019.



Lesser whistling duck (*Dendrocygna javanica*)

## Sundarbans, an ecological marvel

Not many places in the world hold more ecological significance than the Sundarbans. An archipelago (Archipelago is a group of islands over rivers, lakes, or oceans), the Sundarbans is located in West Bengal and consists of 102 islands. The region is a network of tidal waterways, mudflats, and islands of salt-tolerant mangrove forests. In fact, Sundarbans account for 85 per cent of the total mangroves cover in India and is home to 63 mangrove plant species. The mangroves system of Sundarban acts as a shelter belt from storms and cyclones for millions of people and also protects Kolkata Metropolitan Region from adverse natural events. Providing a range of ecosystem services depending on land, river and forest such as fishing, honey gathering, forest work and farming, Sundarbans also supports the livelihood of over 4.4 million people.

## Mangroves – The pride of Sundarbans

What makes Sundarbans so special is, without doubt, the presence of mangroves. In fact, a healthy mangrove belt is a prerequisite for the complete formation of the islands. The root structure of mangroves not only plays a crucial role in the formation of the islands but also prevents soil erosion. The complex root structure reduces the flow of the river water that indirectly binds the soil by allowing sedimentation rather than erosion.

Other than this, mangroves also help in carbon sequestration. Mangroves are powerful carbon sinks that can store carbon ten times more than terrestrial forests. Mangroves absorb atmospheric carbon dioxide from their roots, branches, and stems. When carbon-containing branches and stems fall, the detritus bury them at a greater depth accumulating sediments. The underground carbon remains buried in the ecosystem for centuries. So until it is disturbed, it remains buried under the ground.



Spotted deer (*Axis axis*)



For over 42 years, Development Research Communication and Services Centre (DRCS) has been working tirelessly and has implemented measures related to climate-adaptive models that are climate resilient and promote the restoration of natural ecosystems as well as sustainable livelihoods. With the help of the **HCL Foundation**, DRCS has worked for a year on the project "Restoration and Rehabilitation of Mangroves and Social Forestry Ecosystem in the Coastal Sundarbans" in Patharpratima and Hingalganj CD Blocks of North and South 24 Parganas.

The main objective of the work was to protect the environment through community plantation, regenerate the habitat of faunal species, and conserve the ecosystem. The two blocks are listed due to their high vulnerability to climate change, cyclonic storms, and erosion of embankments. Breaching of the embankment is the biggest problem faced by the people of Sundarbans that leads to the intrusion of saline water damaging cultivation for over a year and more.

The islands of Sundarban are getting impacted adversely by climate change, but the targeted islands of this project, in particular, are the most vulnerable due to their geographical locations. Nearly 2,78,000 mangrove saplings have been planted under the project covering an area of 15 hectares. The mangrove species planted are Gorjon (*Rhizophora mucronata*), Goran (*Ceriops decandra*), Kakra (*Bruguiera gymnorhiza*), Sundari (*Heritiera fomes*).

## Fun Facts

- Sundarbans is the world's largest mangrove ecosystem. It lies on the low-lying islands of the Ganges–Brahmaputra–Meghna (GBM) delta.\*
- The whole mangrove stretch covers an area of approximately 10,000 sq. km, out of which the Indian part of Sundarbans is about 3800 sq. km (38%) and the remaining 62% of roughly 6200 sq. km is in Bangladesh.\*
- The Indian part of Sundarbans was declared a World Heritage Site by UNESCO in 1987. In 2019 it was also designated as Ramsar Site and the largest Ramsar site in India.
- The people worship the deity Banbibi before entering the mangroves forest for their livelihood purpose, mainly for collecting honey and timber. Banbibi is considered the guardian spirit of the forest. People believe the goddess will look after them from the attack of the tigers.

(\*source: UNESCO)

## Environmental Migration: A cause for concern



The rise in sea level causing permanent loss of land is a major threat that is looming over the Sundarbans and its native population. Further, soil erosion and saltwater intrusion are other causes of concern and this has deteriorated the soil to the extent that farming has become challenging. Hence the native population of Sundarbans residing on or near river banks is becoming landless farmers, and are migrating to different locations for work. Storm surges, inundating the fields and their homestead, have added to their woes.

## A haven for biodiversity

The Sunderbans is a haven for biodiversity lovers as the mangrove ecosystem is abode to nearly 1586 fauna and 300 species of birds.

What makes it unique is that the Sunderbans is the only place in the world to have a tiger habitat.

The Royal Bengal Tiger has well adapted to the estuarine environment and according to recent studies, it has been found that the population of tigers in Sundarban is rising. Other faunal species that can be spotted in the Sundarbans include the Gangetic Dolphin (*Platanista gangetica*), Irrawaddy Dolphin (*Orcaella brevirostris*), Cheetal (*Axis axis*), Wild Pig (*Sus scrofa*), Fishing Cat (*Prionailurus viverrinus*), Leopard Cat (*Prionailurus bengalensis*), etc..

As far as aquatic biodiversity is concerned, Sundarbans presents a nursery for small fishes, shellfish, and fin fishes. Among the four species found in the world, Sundarbans is home to two species of Horseshoe Crab (*Tachypleus gigas*), which are considered living fossils. Classified as 'Critically Endangered' by the IUCN, the Northern River Terrapin (*Batagur baska*) is also found in the Sundarbans. It cleans the water which makes it an important estuarine species.



## Women nurturing mangroves



In Putiachak village of Dulduli gram panchayat of Hingalganj block, three women's groups were formed and are being engaged in the plantation of saplings, watering, pit digging and fencing for the protection of the mangroves. Around 10 bighas of land were covered under the plantation consisting of 45,000 mangrove saplings from five different species which are more tolerant to the Hingalganj block.

The local community faced various climatic hazards in the past and believes that these plantations will save them from cyclones and storms in future and that the river embankments will be strong enough to protect the people and their resources from natural hazards.

All over the country, hundreds and thousands of people are taking up cudgels on behalf of the environment with the avowed aim of protecting and preserving our environment and to chip in their mite to reduce pollution and increase the quality of soil, air and water. On this page, we feature some of these Harit champions.

### Ram Susheel - Developing an eye to see and also to listen

A resident of Rewa in Madhya Pradesh, Ram Susheel was deeply disturbed by the fact that farmers back in his home town use a lot of pesticides and insecticides that reduce the quality of soil, air and water. So, when the Nagpur-based non-government organization **Aroha** took the initiative of teaching their students all about kitchen gardens and how to grow green vegetables, he at once seized the opportunity and learnt all about it. He also imbibed the techniques of growing compost from kitchen waste. "I learnt the techniques of creating sustainable, organic farming," says Ram Susheel.

Now a trainer, Ram Susheel teaches other children from classes 5 to 7 how to grow kitchen gardens and how to make compost from green waste generated at home. "Not only humans but also animals suffer from untreated waste," he says. "We teach them how to store green waste in a pit, tell them to pick dry leaves and also put them in there."



Ram Susheel with his school principal in the Partner for Change 2022 event organised by the HCL Foundation in November



Ram Susheel has helped Aroha carry out a plantation drive on a 100-acre land with support from the HCL Foundation. He wants to go back to his village and teach farmers the correct techniques so that the soil, air and water can be preserved. "Let us all join together to keep our environment clean," is his appeal to all who care to listen!

### Shahid - Championing a Green Future

It would not at all be an overstatement to say that the success of **Give Me Trees Trust's (GMTT)** Harit afforestation sites in Uttar Pradesh is the result of Mohammed Shahid's rigorous hard work and dedication. The 40-year-old Shahid joined GMTT in 2015 and currently works as the Program Manager – Plantation Sites (field operations). Having a postgraduate degree in Environment Science, Shahid is an expert in nursery management, water management, and nature education programs. He also trains field staff in handling snakes and reptiles and is also great at wildlife rescue programs. Shahid's regular day at work is filled with responsibilities as he takes care of the health and well-being of twelve dogs and eight cats on the plantation sites.

The tag of Harit Champion is rightly suited to Shahid considering the varied work he has done so far including creating a self-watering system for degraded lands, water swales and channels network system and his innovation of bamboo shelters and pathways for all Harit sites for GMTT. Shahid was also responsible for creating a Harit nursery in Harit Upvan Sorkha, which has so far produced 2 lakh forest tree saplings. His tireless contribution to the cause of the environment makes Shahid a role model for young environmentalists who wish to sow the sapling of change in the world. In his journey of creating a green future, Shahid is accompanied by his wife and two sons who are also budding nature enthusiasts. His sons work along with him and his team on sites, whenever they have holidays and vacation breaks from school. His wife, Roshini, is also very good at maintaining nurseries and working with plants.



### HARIT-CAREER

N. Laxminarayana, Nirmaan-NGO



## User-generated content travels back to the community!



In order to disseminate the knowledge that was produced and documented in a series of grassroots comics workshops on environmental education, World Comics India installed comics notice boards and distributed comics wallposters at six different learning centres of Rasta and Chetna organisations in Noida on January 6, 2023.

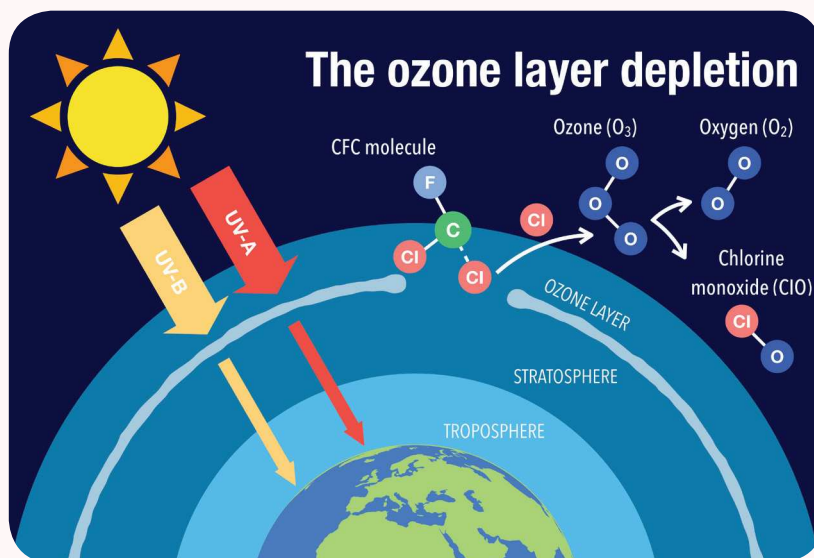


These grassroots comics workshops were held in four states and were successful in extracting local wisdom and community knowledge in the form of stories and comics. The notice boards installed will provide a conducive environment for learning and the wallposters will act as a starting point for debates and discussions around the issues of the environment. The wallposter comics are on a variety of issues ranging from adulterated fruits, and unsustainable development, to stubble burning, and using jute or cloth bags as an alternative to plastics.

## Ozone: A small step towards righting our wrongs

A whopping 99 per cent of the banned ozone-depleting substances have been phased-out, reveals the UN-backed Scientific Assessment of Ozone Depletion: 2022. This positive outcome is the result of the Montreal Protocol, an international treaty designated to protect the ozone layer that was agreed upon back in 1987.

The report also highlights that if current policies remain intact, the ozone layer is expected to recover to 1980 values (before the appearance of the ozone hole) by around 2066 over the Antarctic, by 2045 over the Arctic and by 2040 for the rest of the world.



The Ozone layer is an invisible protective shield that protects us from the harmful ultraviolet (UV) radiation from the sun, especially the UV-B that causes sunburn. Overexposure to UV-B radiation can cause skin cancer and cataracts. Scientists first discovered a hole in the ozone layer above Antarctica in 1985. Soon as the hole was discovered, world leaders and international organisations sought a remedy and the Montreal Protocol was signed.

## Around the World

### Avalanche in Tibet



Lying at an elevation of around 3040 metres above sea level, Nyingchi city in Tibet witnessed a massive avalanche on January 17, 2023. The avalanche occurred on a section of road between Pai village in Mainling county and the exit of the Doxong La tunnel in Medog county at around 7 pm and left people and vehicles stranded, in snow according to the Xinhua News Agency.

### Human-Animal Interaction in Kenya

Africa's long battle with drought aggravated by Climate Change is now pitting humans against wildlife. Experiencing the worst drought in 40 years, the Horn of Africa has become a battleground for human-animal conflict.

Elephants and other wild animals are reported to wander into human settlements in search of food and water resulting in violent and deadly clashes. These drought-induced human-wildlife conflicts have caused more than 370 deaths in Kenya alone between 2020 and 2022, according to data from Kenya Wildlife Service.

### Fighting climate change -- the Indigenous Way



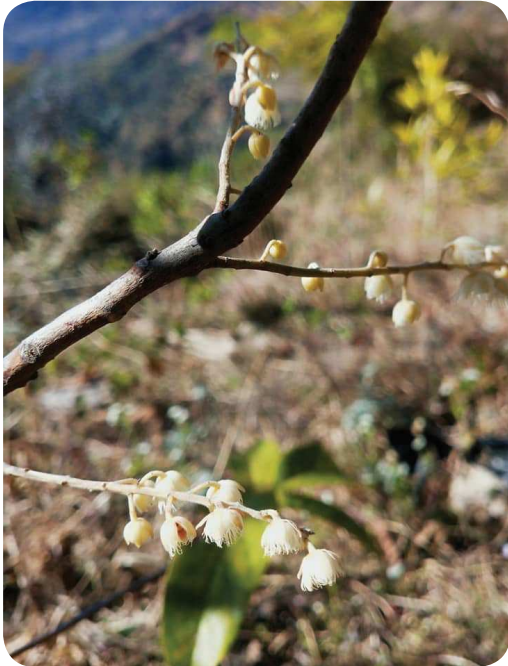
A new report by the World Resource Institute corroborates the role of indigenous communities in mitigating climate change. The report says that in areas of the Amazon managed by Indigenous communities, forests act as a carbon sink, while areas of forests that are under different management tend to not perform so well. According to the report, forest areas under indigenous communities emitted around 120 million metric tons of CO<sub>2</sub> and removed 460 million metric tons, hence reducing a net

of 340 million metric tons of CO<sub>2</sub>, which is equivalent to the United Kingdom's annual fossil fuel emissions. The key reason behind it is that Indigenous people prevent emissions that arise from deforestation.



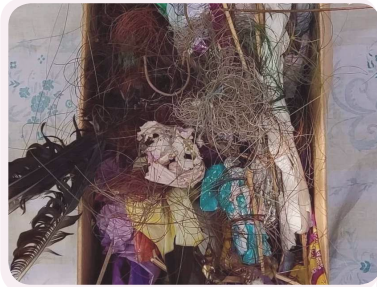
## Rudraksh blooms

The wait is over. The rudraksha saplings, once planted by INTACH in collaboration with the HCL Foundation and Namami Gange (NMCG) along the river Alaknanda in the Chamoli district of Uttarakhand, have finally bloomed. The project was implemented to conserve the catchments of the upper Ganges river and the site is now also attracting biodiversity.



## Celebrating pongal for a cause

Tree Foundation celebrated Pongal by raising awareness on marine conservation through rangolis this year. These rangolis were a perfect example of how we can make the most of our festivals for a sustainable future.



## Say no to Manjha

On December 24, the Avian and Reptile Rehabilitation Trust (ARRT) team in collaboration with the HCL Foundation sensitized 120 students of grades 7 and 8 of Government High School, Kalkere about the perils of manjha. Post the awareness session, the team conducted an interactive role-play skit in which the students were presented with manjha along with cotton thread and were asked to interact with the shopkeeper. Most of the students had internalized the issue and came up with creative and compelling arguments for why they don't want to buy manjha and why it should not even be sold in the first place. Observing the students connect deeply with the plight of wildlife and take a stance by saying no to manjha and choosing responsible kite flying gave the ARRT team more hope in their fight against the deadly manjha!

## Promoting snakebites awareness

Wildlife Rescue And Rehabilitation Centre (WRRC) in partnership with the HCL Foundation conducted Wildlife Awareness Program on 29th December in Bairappanahalli Government School, Bengaluru.

The team spoke on the importance of wildlife, and also shared the Do's & Don'ts in case of snake bites. In addition, the team also trained the students in identifying wild felines/canines.



A total of 43 students from 3rd to 5th standard attended the program.

## Promoting correct waste disposal among children

In collaboration with the HCL Foundation, the Samvedna Development Society (SDS) team organised an Information, Education and Communication (IEC) activity on waste segregation with students of Noida Public School, Gejha in January. This activity focused on sensitizing children towards the importance of correct waste disposal, and no use of plastic.



## Sharing improved cooking experiences

On 16th Jan 2023, Care India organized the Improved Cook Stove distribution event in Kaimrara village of Dadri Block in Gautam Buddha Nagar District. The event was attended by CARE USA Board Member Martha Brooks and other top officials.

During the event, officials from CARE USA discussed the cooking experiences of community members on Improved Cook Stoves and traditional stoves. Women shared the problems they face such as high emissions of smoke, breathing problems, headache and eye irritation due to cooking on traditional cook stoves. At the end of the event, the CARE team distributed Improved Cook Stoves to a few women members of the community. A total of 52 Improved Cook Stoves have been distributed in Kaimrara Village.



### 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.

Issue – 16, Year – 2, February 2023  
(Private circulation only)

We are grateful to HCL Harit partners for their significant contribution to this publication.

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