

HARIT KHABAR

May, 2022



Ghost nets are haunting the marine ecosystem. Read about a unique campaign to counter this by HCL Foundation on page 3.



Forest In Flames: Uttarakhand Wildfires

The incidents of forest fires are increasing exponentially in the state of Uttarakhand and according to the India State of Forest Report 2021, there were 21,487 forest fires in Uttarakhand from November 2020 to June 2021, compared to only 759 from November 2019 to June 2020, a 28-fold increase. In this year's heat season, Uttarakhand witnessed 30% more forest fires in April than last year as per an article by the New Indian Express.

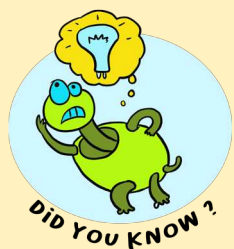
Experts say, extreme heatwaves and stretched dry spells are the reasons behind the occurrence of these fires. March and April saw more than 90% less rainfall than the previous year.

From the mid of February till the time monsoons arrive is critical for the state and also considered the fire season in the state. More than 1300 hectares of forest have been turned into waste and ashes in the recent fire incidents, and in the past 12 years, 30,245 hectares of forests have been burned down by such fires.



Photo: iStock

2021- The year of maximum tree cover loss



- Around 10 football grounds per minute of tropical primary forest were lost in 2021.
- The biggest tree loss related to agricultural expansion was reported in Brazil.

- More than 96% of the world's deforestation takes place in tropical regions.
- 40% of the world's primary forest loss took place in Brazil.
- Russia has experienced its worst fire season since records began in 2001, with almost 6.5 million hectares burned.

Source - Global Forest Watch.

Safely Back to the Sea

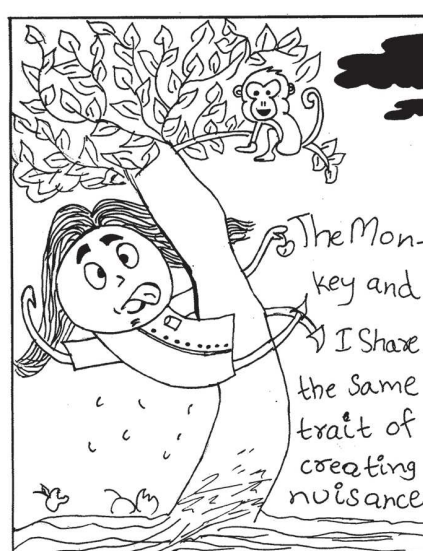
Every year, between the months of December-March, the Olive Ridley turtles arrive in large numbers on the East Coast of India for mass nesting or arribada. After laying eggs, the adult turtles go back to the sea immediately and the juveniles are left to survive on their own to reach the sea. Only 1 out of 1000 olive ridley turtles survive to reach adulthood.

HCL Foundation in partnership with **Tree Foundation** and Tamil Nadu Forest Department supported the re-location of around 12,000 eggs to the hatcheries set up in Neelankarai, Injambakkam and Vadanemmel across the Chennai-Chengalpattu districts. Since December, the sea turtle protection force members of Tree Foundation are regularly patrolling the beaches during the night and early morning to locate any turtle nest. Once a nest is found, it is dug out and the eggs are collected and relocated to the hatcheries for incubation. The eggs are stored in the hatcheries by marking grids on the sand surface. Each grid contains a maximum of 120 eggs and the alternate grids are left empty. This helps the hatchlings to absorb sufficient oxygen and micronutrients from the sand and ensure the maximum survival rate. The hatchlings emerge after 45-48 days of incubation and are released into the sea.



NASTY IS THE NEW NORMAL

MEHWISH KHAN



Constant Fires At Delhi's Landfill Sites



Photo: iStock

In April, the National Capital witnessed four massive fire breakouts at its landfill sites. In these four incidents, the fire broke out three times in East Delhi's Ghazipur landfill site and once in the Bhalswa landfill site.

The firefighters were yet to control the fire even after

nine days after the fire broke out at the Bhalwsa landfill site. The sky above the site has turned grey, filled with smoke and other toxic elements. Rising temperature ignites the methane present under landfills that causes these fire breakouts. In addition, poor recycling methods and people smoking near these sites cause such fire breakouts.

As per the study conducted by the Central Pollution Control Board, IIT Delhi and National Environmental Engineering Research Institute, the fire at the Bhalswa landfill site has caused damages worth INR 155 crores while the fires at Ghazipur have led to environmental damages worth INR 142 crores.

Iraq Dust Storm: Health Hazard

From April to May 2022, Iraq witnessed seven heavy dust storms. These heavy dust storms have caused huge hospitalisation in the country as 5,000 people were admitted to hospitals with severe breathing issues on May 2.

According to the Health Ministry of Iraq, among 5,000 cases, 2,000 cases of suffocation were reported in the Baghdad region. Though dust storms are a common thing in Iraq, due to climate change these events are becoming more frequent. Earlier this year, the Environment Ministry of Iraq also warned that the country could face "272 days of dust" a year in the future decades.

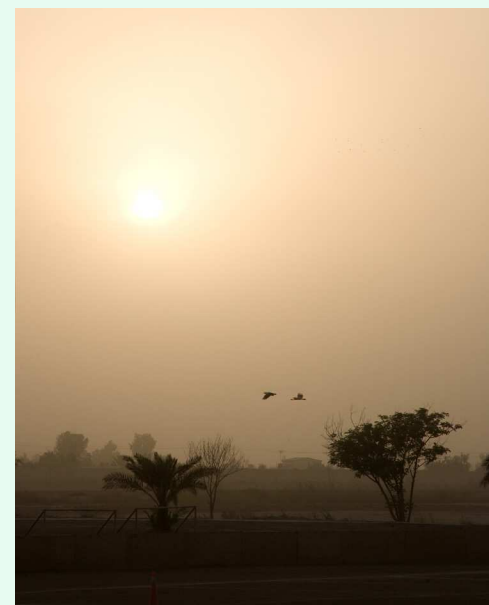


Photo: iStock



Harit Ghostnet Campaign 'Dive to Retrieve'

Three-day drive retrieved 300 kgs
of abandoned fishing nets

Ghost nets, otherwise known as abandoned or discarded fishing nets, or lost fishing gear pose a severe threat to coastal and marine habitats across India's coastline. These nets cause stranding, strangulation, drowning and starvation of all marine fauna and flora. Ghost nets are exacerbating the marine debris and microplastics situation in the oceans.

In a unique attempt to address environmental issue of ghost nets across India's vast coastline, HCL Harit launched the **'Harit Ghostnet Campaign'**. On 22nd April 2022, Earth Day under the theme 'Invest in Our Planet', a 3-day 'Dive to Retrieve' campaign was conducted off the Neelankarai coast, Tamil Nadu.

A team of 15 experienced and certified divers worked with HCL Harit and trusted service partner Temple Adventures to retrieve ghost nets. The divers came from across India including Mumbai, Madurai and Pondicherry. Over the course of 3 days, the divers spent almost 45 hours collectively and retrieved approximately 300 kgs of abandoned fishing nets.

HCL Foundation through HCL Harit programme aims to conduct more such campaigns in the future, regularly along coastal Tamil Nadu, and expanding to other coastal areas gradually. The team also plans to work with fishing communities and local stakeholders to create solutions for upcycling discarded nets and other marine debris and incentivizing the retrieval of the same to create a circular economy around ghost nets. Furthermore, over the last year, HCL Harit with the partners have retrieved over 57,000 Kgs of abandoned fishing nets floating off Chennai and Chengalpattu District coastal waters.



Medical Waste Can Impact The Environment Severely

The mismanagement of medical waste has dire consequences on the environment. Though 85% of medical waste can be categorised as non-hazardous according to WHO, the remaining 15% could be toxic, radioactive or infectious that pose a huge threat to the environment and public health. Being hazardous and sensitive makes it even more challenging to choose an appropriate disposal method for medical waste as one wrong step can result in the leaking of some toxic element.

The burning of health care waste emits dioxins, furans, and particulate matter in the atmosphere. Alternatives such as microwaving, autoclaving, and steam treatment integrated with internal mixing can prove to be beneficial and reduce the chances of releasing toxins and chemicals.

As per WHO, "Lack of awareness about the health hazards related to health-care waste, inadequate training in proper waste management, absence of waste management and disposal systems, insufficient financial and human resources and the low priority given to the topic are the most common problems connected with health-care waste. Many countries either do not have appropriate regulations or do not enforce them".



Photo: iStock

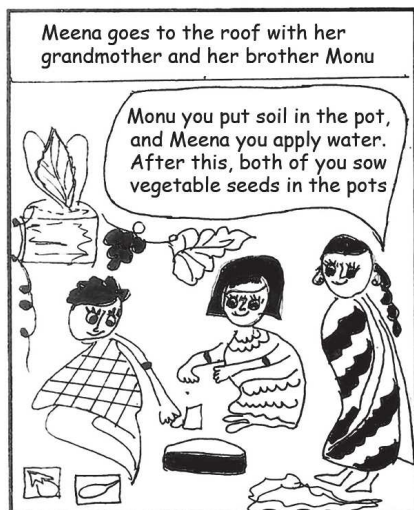
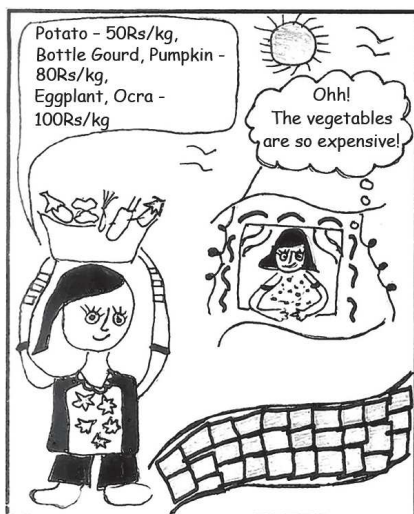
What is Medical Waste?

Healthcare waste or medical waste includes body fluids, blood, injections, old blood samples and other medical equipment that is generated at facilities like blood banks, veterinary clinics, medical research institutes and hospitals.

Medical waste can be radioactive, pathological, sharp, infectious, chemical and cytotoxic and it also has potentially harmful microorganisms that can attack health workers, patients and the general public. However, out of the total medical waste generated, only 15% is hazardous according to WHO.

Fresh Green Vegetables

Sadrun Nisha
(Chetna)



Using Organic Farming to Keep Ganga Clean



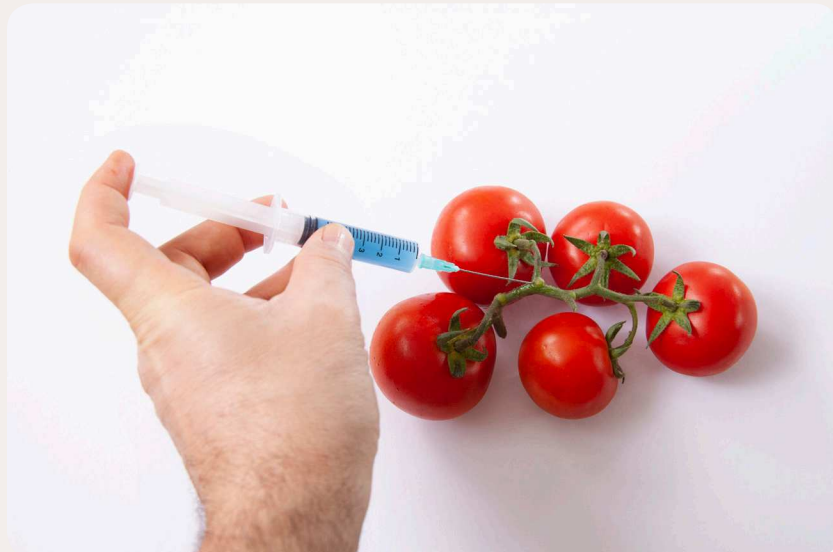
Photo: iStock

The Uttar Pradesh government is promoting organic farming and afforestation along the banks of the river Ganga under the ambitious Arth Ganga project launched by the Prime Minister of India. The river passes through 27 districts of the state and the plan is to promote organic farming and afforestation within a 10-kilometre radius on both banks in all the districts. This step is being undertaken to reduce the inflow of chemical fertilisers and pesticides, as under organic farming, chemical fertilizers and pesticides are replaced by organic products that do not harm the environment. Organic farming has huge potential throughout the region as the soil of the Gangetic plain changes every year owing to floods.

Further, in the following six months, the government plans to afforest 6,759 hectares of land along the Ganga's banks, divided across 503 locations in the several districts where the river passes by. This will not only assist to enhance tree cover in these areas but will also help to reduce soil erosion and flood severity.

There might be steroids in the fruits & vegetables you eat

Photo: iStock



We must include fruits in our diet as they are an excellent source of vitamin A and C, and having them in our diet generally keeps us away from many chronic diseases. WHO recommends having five servings of fruits and vegetables every day for a healthy life.

The quality of fruits and vegetables depends on how they are ripened and harvested. The process of fruit ripening is long and in this long process, the fruit becomes soft, changes its colour, and develops an aroma and a flavour naturally. Sadly, sometimes due to high demand, or to save time and money, these fruits are forced to grow fast, unnaturally, and untimely by injecting chemicals and steroids.

The difference between artificially ripened fruits and naturally ripened fruits is that artificial ones are only ripe from the skin and stay raw on the inside, while natural ones are completely ripe throughout.

The chemical commonly used in the artificial ripening of fruits is Ethephon that disrupts the organic balance of nutrients and vitamins according to an article by DownToEarth.

Arsenic, phosphorus, and industrial-grade calcium carbide can also be traced in fruits and vegetables. These elements can cause symptoms like ulcers of the skin, mouth and throat, vomiting, diarrhoea, everlasting eyesight loss, sore throat and abdomen pain according to the article. Generally fruits and vegetables spend a long time in travel and harvesting them when entirely ripe would lead most of them to decay before reaching to us. However, this does not mean that steroids are absolutely necessary in the process and we should find healthy alternatives to it.

Care Earth Trust - Reviving Chinnavedampatti Ecology



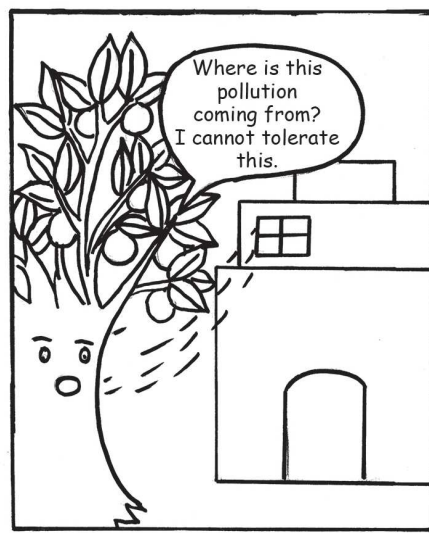
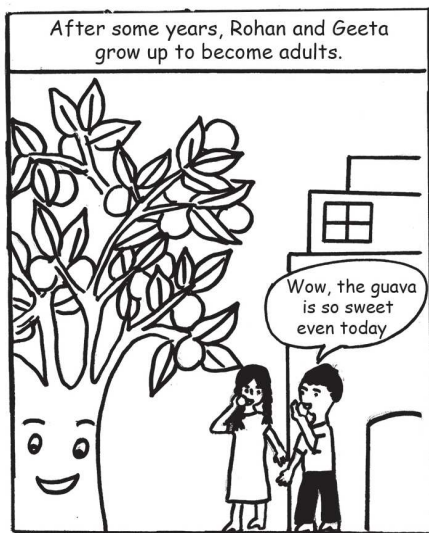
A buffer area of 2200m by 100m around Chinnavedampatti lake of Coimbatore was in a severely disturbed state. However with the joint efforts of HCL Foundation and **Care Earth Trust**, it was transformed into an urban forest patch through science-based techniques like the plantation of native plant species and using drip irrigation methods for watering the plants. Alongside native plants, different medicinal herbs and shrubs were also planted to make the forest patch biodiversity-rich.

The public works department of Coimbatore also contributed to the project as they laid down a dedicated sewer line of 1.5km to divert the sewage inflow from the project site. Other sewerage lines were transformed into extensive canals.

A beautiful nursery and green space for kids to play have also been developed to add to the attraction of the forest. Moreover, an adequate volunteer base is also in place for activities like lake cleaning, maintenance and watering of the saplings and lake conservation. Established in 2000, Care Earth Trust is an organisation working towards biodiversity betterment and conservation through research, advocacy and capacity building.

Guava Tree

Shayna, Casp



Terminating Kikars From Delhi



Photo: Express Photo/ Tashi Tobgyal

The Delhi government is eyeing to get rid of Vilayati Kikar (*Prosopis Juliflora*), a plant species from Mexico which was brought by the Britishers to India in the

1920s. The government initiated a project to remove the tree from 10 hectares of land in the Central Ridge.

Prosopis juliflora or Vilayati Kikar is seen throughout the Delhi-NCR region and has deep and extended roots that extract so much water that nothing is left for other tree species around them. It also has very wide branches that block sunlight, which doesn't allow smaller plants to absorb sunlight. Britishers planted *Prosopis Juliflora* in different locations of the city and now this tree species has spread in the entire city and has become a big threat to native trees of Delhi. Moreover, the Kikar plant also poses huge environmental risks as it has left the land parched by sucking up most of the groundwater. Small water bodies are also being developed by professionals in order to restore moisture.

Transplant Trees Instead of Cutting Them, Said Delhi High Court

Delhi High Court showed its concern over cutting down old and fully grown trees in the state. The court mentioned that it would be logical and best to transplant trees instead of straight cutting them.

A contempt plea filed by Neeraj Sharma on cutting down trees in the Vikas Marg area in East Delhi started this conversation. "This is a worrying issue because, on one side, the endeavour is said to be underway to maintain the green cover of Delhi while simultaneously fully grown trees are allowed to be cut down. This self-defeating exercise by the Forest Department needs to be arrested at the earliest," said the Delhi High Court.

Delhi is set to revive 22 native plant species



Malabar Nut

Photo: iStock

Delhi Forest Department in collaboration with Bombay Natural History Society will revive 22 native plant species that have almost vanished from the city. Seeds for planting these native trees have been brought from Haryana, Rajasthan, Madhya Pradesh and Chhattisgarh.

The intention behind this initiative is to develop a seed bank and revive these plant species in Delhi's ecology. All the plantations for this project will take place in a five-month-old nursery in Asola Bhati Wildlife Sanctuary. The species to be planted in the sanctuary are Kankera (Red Spike Thorn), Jungli Moringa (Konkan Moringa), Jaal (Large Toothbrush tree), Indrok (Roundleaf Axlewood), Gunja (Indian Ash Tree), Inderjao, Guggal (Indian Bdellium), Gangeti (White Crossberry), Goya Khair (Sickle Bush), Dhau (Axle Wood Tree), Adusa (Malabar Nut), Barna (Three-leaf Caper), and Bistendu (Bombay Ebony).

Native trees and plants are important in improving the biodiversity of the city, however, according to experts, growing and maintaining native trees can be a tough task. The reasons behind the decline of native species from Delhi are poor plantation methods, emphasis only



Three - Leaf Caper

Photo: Flickr

on ornamental or grand trees to be planted on the footpaths and along public roads, and overuse of their bark, roots and fruits. Other than this, expansion of tree species like Vilaiti Kikar has damaged the native ecology. Most of the 22 native threatened trees have medicinal and traditional values.

Matka is Not Cool Anymore

Earthen Pot and its maker are struggling to survive - a report by Sarthak Mehra



Summers can be exhausting due to the extreme heat and cold water proves to be a lifesaver in this heat. How does the modern citizen consume cold water? The refrigerator is the clear winner now. The Indian middle class has welcomed modern electrical appliances with wide arms as their income rose. What has been disregarded in this quest to be modern is the alternative that has dominated the country's market throughout - Earthen Pots or 'Matka'.

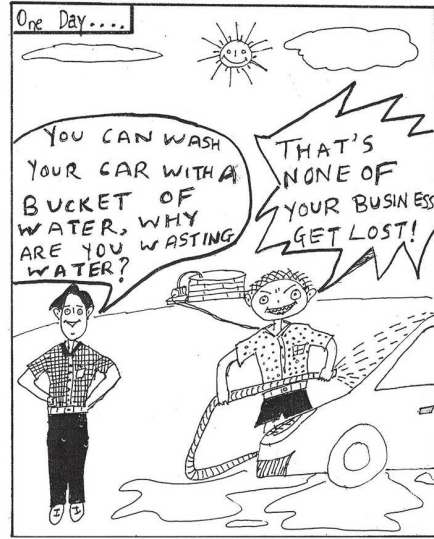
Hira Lal, whose family has been in the business of buying and selling matkas for over 30 years confirms the same. Running a small business near a Mother Dairy shop in Rohini, the family has witnessed the downfall in the demand for matkas over the years. Hira Lal said – **“Our business was good in the early 2000s before refrigerators dominated the market. We used to sell 10-15 matkas per day earlier, whereas we sell only 1-2 matkas now”.**

The family buys matkas from the manufacturing hub in Delhi, Uttam Nagar and all five members of the family depend on the earnings from this small business. Though there is an overall drop in demand, Hira Lal mentioned that the pandemic has proved to be advantageous for their business as people have started buying matkas again. He says, **“People are moving back to utensils made of mud and clay after the pandemic. Doctors recommending to avoid drinking cold refrigerated water during the pandemic has increased the sales of matkas”.**

Being a seasonal product, the demand for matkas fluctuates throughout the year, being nearly zero in the winter season. Hira Lal and his family do not switch professions even in peak winters as the demand for matkas takes a nosedive. Belonging to the Parjapat caste, the family has accepted selling matkas and utensils made up of mud and clay to be their lifetime profession. Hira Lal says, **“We are from the Parjapat caste and we engage in this work only. Though people from other castes have also started doing this work, we cannot leave it. This is our work. I am a graduate and tried to get a job earlier with no success. It is only now that I have started working in the fire department at Ambedkar Hospital, Rohini as the demand for Matka is reducing and there is ever-increasing inflation”.**

EVERY DROP COUNTS

Vijay Prakash Iyer



India Under Heat Wave

After recording the hottest march since 1901, the temperature in April is constantly touching 40 degrees Celcius. The Indian Meteorological Department also issued a warning about the extreme heatwave in April.

As per National Oceanic and Atmospheric Administration (NOAA) - National Weather Service (NWS), a heatwave is a short and temporary climatic period associated with abnormal and scorching weather that lasts for more than two days.

The NOAA - NWS emphasised that a heatwave can transpire with or without high humidity and can cover a large area. Living in a heatwave for an extended period of time can be lethal as heatwave can have effects like sunburn, dehydration and stroke. As per WHO, 166,000 people died because of heatwaves around the globe between 1998 and 2017.



Photo: iStock

Your AC is Heating the Planet Earth

As the mercury rises, the consumption of Air Conditioners rises too. This increasing consumption of ACs is not only affecting our pockets but is also causing environmental degradation. ACs emit Hydrofluorocarbons (HFCs) gas that soak infrared radiations from the earth and the sun and hold the heat with themselves in the atmosphere that should ideally travel into outer space. In 2019, HCFs' contribution to global warming emissions was equivalent to 175 million metric tons of carbon dioxide according to an article by Time. Moreover, according to the report from *Birmingham Energy Institute*, the cooling industry around the world accounts for 10% of total CO₂ emissions, which is three times more than the shipping and aviation industries combined.

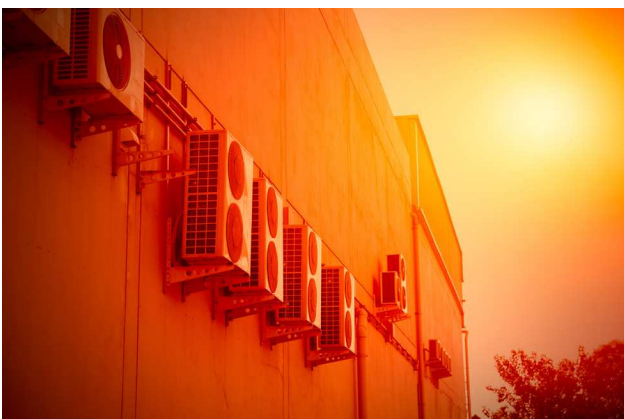


Photo: iStock

Aroha's Environment Programme for School children

Reducing waste from our homes and segregating it have been critical issues that deserve more attention. With this concern, **Aroha Multipurpose Society** in partnership with **HCL Foundation** is working with school children for environmental awareness and sensitization.

Aroha's environmental education has three parts, nutrition garden, nursery development and compost making. Through this initiative, school children were given demonstrations on how to make compost from green and dry waste. About 50% of our household waste is green waste which includes leftover food, vegetable remains, leaf litter, eggshells, coconut shells, etc. If this waste is used to make compost at home, the waste coming out of your house can be halved and it will be easier to separate plastic, metal, etc. from the rest of the waste.

The compost making demonstrations were done in 10 schools. Students were also given baskets to start making compost from green waste at home and many students are now doing it.



Developing empathy towards the environment - Wild Shaale



To further strengthen environmental education in schools, the **Centre For Wildlife Studies** in partnership with **HCL Foundation**, has developed a unique curriculum and tools for improving children's interest and empathy. This conservation programme 'Wild Shaale' is developed for school going children aged between 10 and 13 years living in rural areas near wildlife reserves.

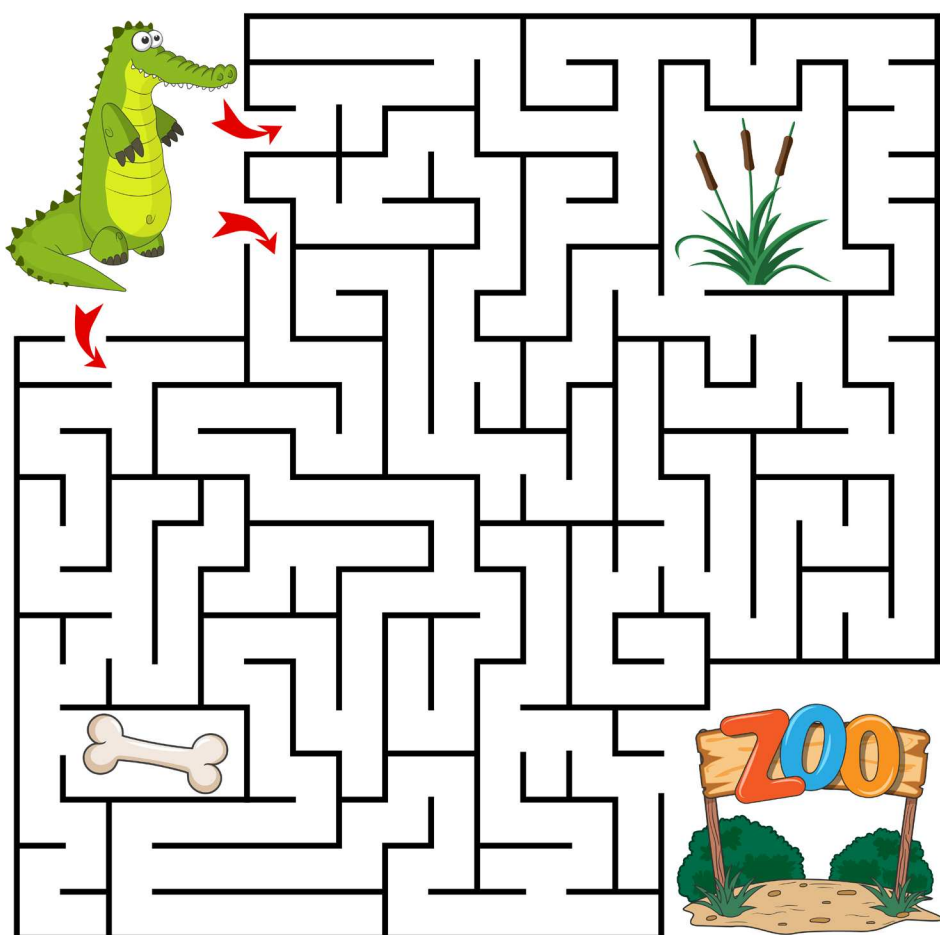
Wild Shaale's curriculum consists of region-specific topics like wildlife, ecosystems, and conservation issues with evaluation techniques to measure the programme's impact on children's environmental knowledge. To date, the programme has covered 500 schools, including 20,000 children.

The Centre of Wildlife Studies is a respected international organisation working in the field of wildlife research, nature based tourism, community health, conservation activities and policies.

BEST OUT OF WASTE

BY : HEMALATHA .S.

Help the crocodile reach the zoo



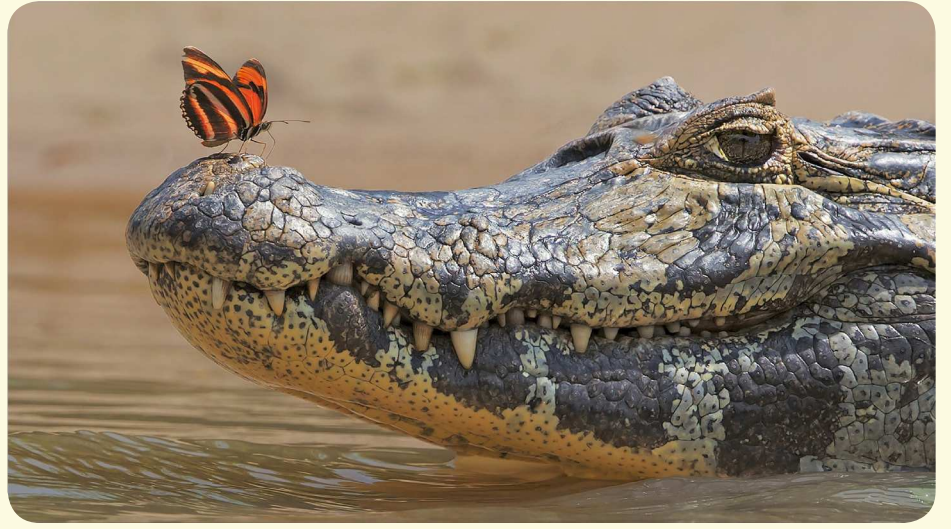
21% of All Reptile Species Is Under The Threat of Extinction

Photo: iStock

With 31 species gone extinct, 1 in 5 reptile species is facing the threat of extinction says a study published in *Nature*, world's leading multidisciplinary science journal. The study took more than 15 years to complete due to difficulties in getting funds. The study highlights that among the kinds of reptiles, turtles and crocodiles are at high risk. The study reveals –

- Two-thirds of turtles and more than half of crocodiles are under the threat of extinction.
- Urban development, farming and logging are major reasons behind the habitat destruction of reptiles.
- Reptiles are facing the threat of extinction more in West Africa, Southeast Asia, Northern Andes and the Caribbean.
- Climate change poses a serious threat to reptiles, especially those living on low-lying islands.

Scientists have called for urgent reptile conservation, citing the importance of reptiles in areas such as pest control. "Reptiles to many people are not charismatic and there's been a lot more focus on more furry, feathery species of vertebrates for conservation," said Dr Bruce Young of the international nature organisation, NatureServe as reported by Helen Briggs in BBC.



Five Rare Reptiles of India

Gharial

Photo: Bhaskar Dixit



The *gharial* is a crocodylian from the family Gavialidae and among the longest of all living crocodylians.

These reptiles can grow up to 6 metres and have dark grey skin and pale yellow belly. The male has matka/ghara like structure on the snout. This endangered species can be found in rivers like Ganga and Son and sanctuaries like National Chambal Sanctuary and Katarnighat Wildlife Sanctuary. The gharial is also known as the fish-eating Indian Crocodile.

Batagur baska

Photo: iStock



Batagur baska, also known as Northern River Terrapin is an aquatic turtle and the International Union for Conservation of Nature (IUCN) has categorised it as

critically endangered. The terrapin population is constantly declining due to factors such as being consumed as food, habitat loss, infrastructural activities, fishing nets, etc.

Otocryptis beddomei

Otocryptis beddomei or the Indian Kangaroo lizard is endemic to the Western Ghats of South India and is on the endangered list of the IUCN. The lizard is named after kangaroos because it runs on its hind legs with its body held erect.

Photo: iStock



The species is generally found in lowland forests. Expansion of agricultural lands and betelnut gardens, and clearing of firelines in forests are causing a threat to the species and its habitat according to a research available at indianreptiles.org.

Indian Star Tortoise



Photo: iStock

The Indian star tortoise is distributed in north-western and eastern and southern

India and is found in scrublands, grasslands, desert edges, agricultural fields, hedgerows and plantations. The tortoise is listed as Vulnerable by the IUCN. The species and its habitats face serious challenges from the illegal collection by local and international traders and habitat degradation.

Eurylepis poonaensis

Eurylepis poonaensis or the poona skink reptile is endemic to the northernmost part of the Deccan peninsula



according to the Biospheres, an NGO working in this area. The IUCN has enlisted this species in the endangered category. The species is common in grasslands, scrub forests, and hill ranges around Pune and Satara. The species and its habitats are under threat from urbanisation and tourism-related infrastructural development.

Sitana Ponticeriana: The Fan Throated Lizards

The fan throated lizards are tiny and vivid reptiles found in the coastal areas of Southern Asia. Fourteen species of fan throated lizards have been found in the Indian subcontinent. The lizard gets its name from the vivid dewlap under its throat, which it displays during a particular time. Only the male *Sitana* lizard has this fan-like throat. A renowned French naturalist named Georges Cuvier first discovered the species in 1829 in Pondicherry.

The lizard only shows its beautiful fan-like throat during the mating season, which is the month of May and June. Then, they stand like a cobra and flaunt their colourful neck to attract the female lizards for breeding. Over the years, the species' habitat has been deeply affected by growing industrialisation and urbanisation.



Photo: V Deepak, Mongabay

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.

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.

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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