Save Plants : Save Environment

## NATIONAL BOTANICAL RESEARCH INSTITUTE, LUCKNOW

## Gurgaon residents plan Chipko to save trees

#### The Times of India, 10 July 2018

GURUGRAM: A citizens' group is planning a Gurugram version of 'Chipko' movement, on the lines of the one launched in south Delhi recently, to save around 100 trees that are likely to be removed for a proposed revival of Bal Bhawan in Sector 4.

On Sunday, some members of the group called on state forest minister Rao Narbir Singh, seeking his intervention.

But officials said the contract to build new Bal Bhawan had already been awarded to a company and thus the trees could not be saved.

As TOI reported last week, 28 trees will be cut while another 78 trees will be transplanted by MCG for the renovation project.

MCG has already obtained permission for uprooting the trees from the forest department.

"The authorities need to review the decision and carry out an assessment on how many old trees exist at the site. It is stupid to say that compensatory plantation will be carried out.

Thus, we have to bring 'Chipko' to the city to safeguard precious trees," said Anindita, a Gurugram resident who was part of the Chipko in south Delhi

"A team from the minister's (Singh) office visited Bal Bhawan on Monday, but they didn't inspect Atul Kataria Chowk, where authorities plan to fell several trees," said Shona Chatterji, working on air pollution.

"We received a request to cut all trees. But, we gave permission to cut only 28 trees and transplant 78 trees," said a senior forest official.

### Uranium pollution damaging crops, health of people in Kadapa district: Scientists

The Times of India, 12 July 2018

HYDERABAD: Hundreds of people living in villages around the uranium plant at Tummalapalle in Kadapa district are suffering from a plethora of diseases caused allegedly by leachate of uranium radionuclei and alkali material used in the processing of uranium ore. Scientists for People (SFP), an environment protection body of scientists and researchers, has called upon the Uranium Corporation of India Limited (UCIL), which owns the uranium mines and plant at Tummalapalle, to conduct a comprehensive survey by independent scientists to arrive at the extent of pollution, particularly groundwater. It alleges that all research studies conducted thus far are by Bhabha Atomic Research Centre (BARC) or its associate bodies. The studies mainly concentrated on the pollution caused by uranium and did not bother to investigate into the contamination caused by alkali chemicals used in processing the uranium ore.

SFP convener and senior scientist Dr K Babu Rao told TOI that the issue of groundwater contamination was brought to the notice of UCIL after a small farmer, G Maheswara Reddy of Mobbuchintapalle village, complained of his banana orchards drying up in May 2017 without any explainable reason. "Analysis of groundwater and soil samples collected from the banana orchard of Maheswara Reddy revealed that they are unfit for agriculture. It was reported to officials in the zonal office of Andhra Pradesh Pollution Control Board (APPCB) in Kurnool. No action was taken," Babu Rao said. Babu Rao said since May 2017 the contamination spread from Mobbuchintapalle to other villages. It is now a common problem in at least five villages around the plant and mining site. Farmers complain of white salt deposit on their fields once the drip water dries up. A team of revenue and pollution control board officials visited the villages. "Preliminary report confirmed the effect of pollution on banana plants.

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## Plastic pollution risks 'near permanent contamination of natural environment'

The Guardian, 19 July 2018

Humans have produced 8.3bn tonnes of plastic since the 1950s with the majority ending up in landfill or polluting the world's continents and oceans, according to a new report.

The first global analysis of all mass-produced plastics has found that it has outstripped most other man-made materials, threatening a "near permanent contamination of the natural environment".

The study by US academics found that the total amount of plastic produced – equivalent in weight to one billion elephants – will last for hundreds, perhaps thousands, of years. And with production expected to accelerate over the coming decades, campaigners warn it is creating an environmental crisis comparable to climate change.

"We are increasingly smothering ecosystems in plastic and I am very worried that there may be all kinds of unintended, adverse consequences that we will only find out about once it is too late," said Roland Geyer, from the University of California and Santa Barbara, who led the project.

In 1950, when plastic was first mass produced, the report found 2m tonnes was manufactured. That figure has risen to 8.3bn in 2017 and is projected to reach 34bn by 2050.

"We are on this enormous growth trajectory – there is no end in sight of the rate of this growth," said Geyer. He added that even academics who worked in the same field were unaware of the "sheer dimensions" of the crisis.

"Combined with this huge growth rate it makes me very concerned. We should look at the numbers and ask as a society, is this what we want, can we not do better?"

Last month a Guardian investigation revealed that a million plastic bottles are bought around the world every minute and that number is expected to jump another 20% by 2021. And earlier this year scientists found nearly 18 tonnes of plastic on one of the world's most remote islands, an uninhabited coral atoll in the South Pacific.

#### Soil bugs munch on plastics

#### Science Daily, 26 July 2018

After harvest, it often is impossible for farmers to re-collect the entire films, particularly when films are only a few micrometers thin. Film debris then makes its way into the soil and accumulates in the soil over time, because PE does not biodegrade. Film residues in soils decrease soil fertility, interfere with water transport and diminish crop growth.

#### Soil microbes mineralise films composed of alternative polymer

Researchers at ETH Zurich and the Swiss Federal Institute of Aquatic Science and Technology (Eawag) have now shown in an interdisciplinary study that there is reason to be hopeful. In their recent study, they demonstrate that soil microbes degrade films composed of the alternative polymer poly(butylene adipate-co-terephthalate) (PBAT). Their work has just been published in the journal Science Advances.

#### Labelling of polymer with carbon-13

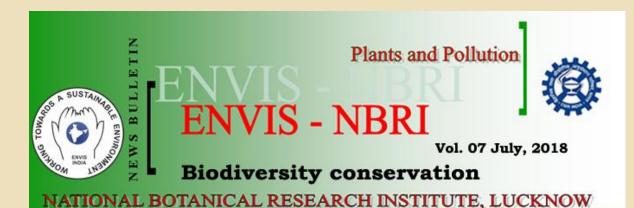
In their experiments, the researchers used PBAT material that was custom-synthesised from monomers to contain a defined amount of the stable carbon-13 isotope. This isotope label enabled the scientists to track the polymer-derived carbon along different biodegradation pathways in soil.

#### True biodegradation

"The beauty of our study is that we used stable isotopes to precisely track PBAT-derived carbon along different biodegradation pathways of the polymer in the soil," says Michael Zumstein.

#### Too early for an all-clear

"Unfortunately, there is no reason to cheer as of yet: we're still far from resolving the global environmental problem of plastic pollution," says Sander, "but we've taken a very important first step in the direction of plastic.



# Report urges action on conservation to stem biodiversity crisis

#### The Globe and Mail, 17 july 2018

Governments across Canada are sitting on unfulfilled conservation promises that must be met to stem a biodiversity crisis, says a new report from the national charitable organization created to safeguard the country's natural spaces.

The report from the Canadian Parks and Wilderness Society (CPAWS), which is to be released on Tuesday, says it is possible for Canada to meet its international commitment to protect 17 per cent of its lands and inland waters by 2020. But it will take specific commitments on the part of Ottawa as well as the provinces and territories, and not just pronouncements that are never realized, the report says.

To date, just 10.5 per cent of Canada's land and fresh water has been protected. To reach 17 per cent, which was promised at a meeting of 194 countries in Japan in 2010, an area approximately the size of Alberta will have to be declared off-limits to development over the next two years.

"What we're trying to do is apply pressure to governments across the country that have committed to these targets but have yet to put forward their plan," says Alison Ronson, the national director of the parks program for CPAWS.

Federal, provincial and territorial environment ministers agreed at a meeting two weeks ago to put forward plans for contributing to Canada's 2020 targets by the end of this year. Those plans must outline specific lands and inland waters that will be protected, and name the community partners or Indigenous partners that will ensure the protection actually takes place, Ms. Ronson says.

One way to get closer to 17 per cent, the CPAWS report says, would be for provinces to keep the commitments they have already made.

Newfoundland and Labrador, for example, committed decades ago to implement what it called a Natural Areas System Plan, but the protected areas that would be part of that plan have never been established.

### Does biodiversity loss leads to an increased disease risk?

#### Science Daily, 18 July 2018

UM Assistant Professor Angela Luis shows for the first time that species diversity can have both positive and negative influences on disease transmission in the same host-pathogen system at the same time in her article published in the Proceedings of the National Academy of Sciences.

For a number of species, a more diverse community decreases infection risk, termed "the dilution effect," because biodiversity dilutes infection. If this is a widespread phenomenon, then preserving biodiversity is a win-win for both animal conservation and human health.

However, a debate rages about how general this phenomenon is since, for some systems, a more diverse community increases disease risk, termed the "amplification" effect. For other systems, biodiversity has no consistent effect, leaving its relationship to disease unidentified. In the latest issue of PNAS, Luis, a disease ecologist, shows that the Sin Nombre hantavirus among rodents displays a significant dilution effect. Areas with a more diverse rodent community have lower hantavirus prevalence among deer mice, which are the main reservoir for the disease. When the virus spills over into humans, it causes hantavirus pulmonary syndrome, which has infected more than 700 people and killed about 1 in 3 since its discovery in 1993.

Luis' study shows deer mouse density causes the dilution effect. In more diverse communities — with more rodent species present in the same area — there tend to be fewer mice due to competition, and disease spread slows down.

However, for a given mouse density, as rodent species diversity increases, infection spreads faster in a "component amplification effect" as mice become stressed and their immunity decreases.



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## National Clean Air Programme likely to be notified by July end: Environment ministry

#### The Times of India, 04 july 2018

NEW DELHI: The National Clean Air Programme (NCAP), which proposes multiple strategies to combat air pollution, is likely to be notified by the end of this month, a top environment ministry official said today.

"It (notification of NCAP) should be done soon, say, by the end of this month," Union environment secretary CK Mishra told PTI on the sidelines of an event here.

The Environment Ministry has prepared the draft NCAP with an objective to come up with a comprehensive plan for prevention, control and abatement of air pollution, and to augment the air quality monitoring network across the country.

Various green groups have submitted their recommendations to the ministry on the draft.

In February, Union Environment Minister Harsh Vardhan had said that the ministry hoped to bring down air pollution in around 100 non-attainment cities by 50 percent in the next five years under the NCAP.

Non-attainment cities are areas with air quality worse than the National Ambient Air Quality (NAAQ) Standards.

The key components of the NCAP include cityspecific air pollution abatement action plan for 100 polluting cities of the country increasing the number of monitoring stations, data dissemination, public participation on planning and implementation.

The other components include setting up of air information centre for data analysis, resource apportionment studies, national inventory and rural monitoring stations, besides guidelines for indoor air pollution.

Last month, Greenpeace India had urged the ministry to speed up the pace of rolling out the programme as a thick haze of dust enveloped Delhi and the pollution levels spiked to an alarming

### Niti Aayog proposes 15-point action plan to deal with air pollution

#### The Economic Times, 11 July 2018

NEW DELHI: Niti Aayog has proposed 15-point action plan for combating air pollution in ten most polluted cities in the country, including Delhi, Kanpur and Varanasi.

The draft action plan titled 'Breathe India' includes encouraging electric vehicles, phasing out private diesel vehicle and development of crop residue utilisation policy.

According to a recent WHO database (2018), Kanpur, Faridabad, Gaya, Varanasi, Agra, Gurgaon, Muzaffarpur, Lucknow and Patna are the top ten most polluted cities in India.

Last month, air quality of Delhi had deteriorated beyond severe level because of a ground-level dust storm in western India, as per the Central Pollution Control Board data.

Every year, air quality of Delhi plummets to very poor levels during winter season.

The action plan also includes expediting strategic decommissioning of old and inefficient power plants and implementation of a large scale feebate programme from 2020 onwards.

"Increase distribution of electric and hybrid vehicles: This should be carried out through necessary financial measures and infrastructural support. The procurement of electric vehicles (EVs) should be mandatory for vehicles for Central Government use and certain public facilities.

"All central government offices should replace existing fleets older than 15 years to electric vehicles in the next 3 years i.e. by 2021 April," the draft paper said. It also pitched for encouraging electric two and three-wheelers, saying a scheme to convert existing ICE (internal combustion engine) autos into electric ones either by retrofitting or by discounting the residual

value of the existing auto from a new electric auto should be launched.

The paper also favoured for implementing a large

The paper also favoured for implementing a large scale feebate programme from 2020 onwards.