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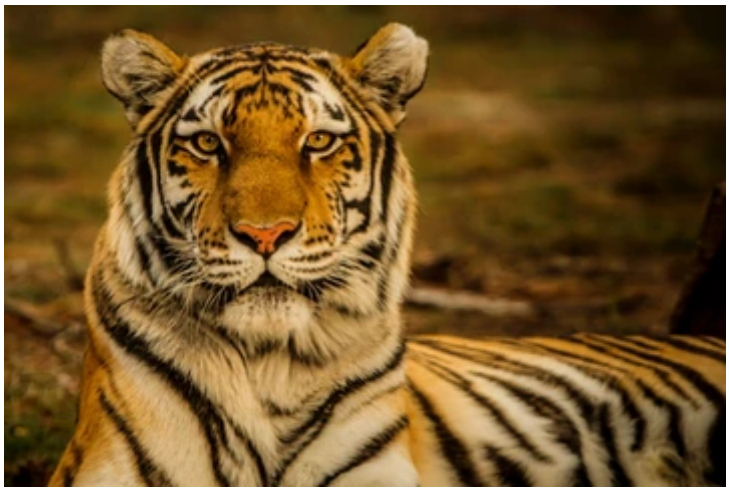
Raven Newsletter #6

"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it is the only thing that ever has." — Margaret Mead

Kailash Sankhala - Tiger Man Of India



Remember the animal with orange skin and black embroidery, the ferocious yet beautiful beast, whose roar can tremble even the residents of heaven. The one who once ruled an area larger than that of Alexander's, but now is limited to small traps in urban jungles.

Yes! The Tiger, who became our national animal in 1972. The love for Tiger in this country is not new, as it was one of the favourite animals for hunting, for the Mughals as well as for the European masters.

But one man's love supersedes other's. **Kailash Sankhala**, the wildlife manager of Rajasthan and later manager of Delhi Zoo, was the first one to properly raise the banner of conservation of tiger. His extensive studies on their declining population because of poaching finally led to the adoption of Project Tiger in April 1973.

The project which was aimed to eradicate factors responsible for their decline has done its job quite well as the animals which were once about to go extinct, today number to nearly 3000.

And we can remember this beautiful animal, or perhaps see it in its habitat, is only because of the efforts of this person, who is rightly known as '**Tiger man of India**'.

Here we go again: The Fukushima continues

On the 11th of March, 2011, a 9 magnitude earthquake and tsunami struck eastern japan near the small town of Okuma. It caused a devastating INES Level 7 accident at Fukushima nuclear power plant. To preserve the surrounding area from nuclear radiation, TEPCO (the entity responsible for the plant) has been using a makeshift system of pumps and piping to inject water into damaged reactor vessels to keep melted uranium fuel rods cool, this contaminates the fresh groundwater which flows in daily.

The water is pumped out and treated before being stored in huge tanks. Those tanks now hold about 1.3 million tonnes of radioactive water which increases in quantity by about 140 tonnes a day and is now being stored in more than 1,000 tanks, and space at the site is expected to run out by mid-2022. Tepco has argued that it will struggle to make progress on decommissioning the plant if it has to keep building more storage tanks at the site. Though it battled leaks, spills, safety breaches etc and also admitted in 2018 that it had not filtered all the dangerous material out of the water, despite saying for years they had been removed.
Tepco and the Japanese government has announced, it will again filter the water to remove isotopes, leaving only tritium, before pumping it directly into the ocean. Water containing tritium is routinely released from nuclear plants around the world. Once begun, the water disposal will take decades to complete.

Representatives of the fishing industry said they feared reputational damage for Fukushima seafood. Local fish catches were down more than 80% in 2019 compared with before the accident. There is a strong call from environmental groups, including Greenpeace, saying the government should build more tanks to hold the water outside the plant instead of choosing the cheaper and potentially harmful option of ocean release. Many people have also questioned Tepco's plans because there is a high level of distrust of the company.
Greenpeace Japan's polling has shown that the majority of residents in Fukushima and the wider Japan are opposed to discharging this radioactive wastewater into the Pacific. Also, United Nations' human rights special rapporteurs warned the Japanese government in June 2020 and again in March 2021 that discharging the water into the environment breaches the rights of Japanese citizens and its neighbours including Korea.

Landslides in the concrete jungle of Darjeeling

Darjeeling is now under a greater threat from natural calamities. Disasters are more common with continuous climatic change on the go. Darjeeling is no major exception to landslides, due to high-intensity rainfall influenced by global climatic conditions including illegal activities i.e. mining, illegal construction and deforestation has worsened the conditions occurring more in hilly terrains. The old fashioned villages of Darjeeling at one time known for their tea harvest is now more prone to frequent landslides due to uneven climatic conditions.

Today there is a regular construction of more than 10-storeyed buildings on the slopes and near the roads, while only a maximum of four storeys should have been approved. Uneven monsoon patterns have drastically changed from high intensity to low. And longer rainfalls are leading to excess water by clogging the drainage system due to the dumping of garbage on the roadside.

Lack of initiatives taken by the state government against builders and residents have led to such intensified situations in hilly terrains and to improve such conditions disaster management is necessary for every citizen to be known.

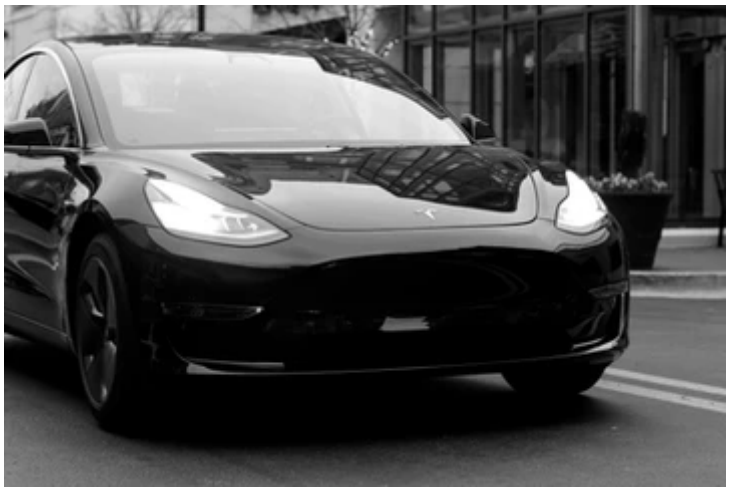
Farms and solar panels could transform how food and energy is produced

Agrivoltaics—a term for land that combines agriculture and solar farming. Creating renewable energy from solar isn't that complicated anymore, the heat acts both as fuel of renewable energy and fuel for the crops as well, practicing Agri Voltaics requires huge land masses for the cultivation of solar energy.

Agrivoltaic garden proved to produce a cooler microclimate under panels than conventional solar farms, this revolutionary practice of farming requires less usage of water as solar panels are placed above the plant, providing the shade on sunniest days. Many non-native plants thrive to grow under harsh and dry water conditions which make solar panels an ideal growing partner for plants.

Even turning 1% of farmland into agrivoltaic would help to meet the demands in the coming future, a method that can be practised in any environment it could even satisfy the world's energy demand.

Are green vehicles really as green as claimed?



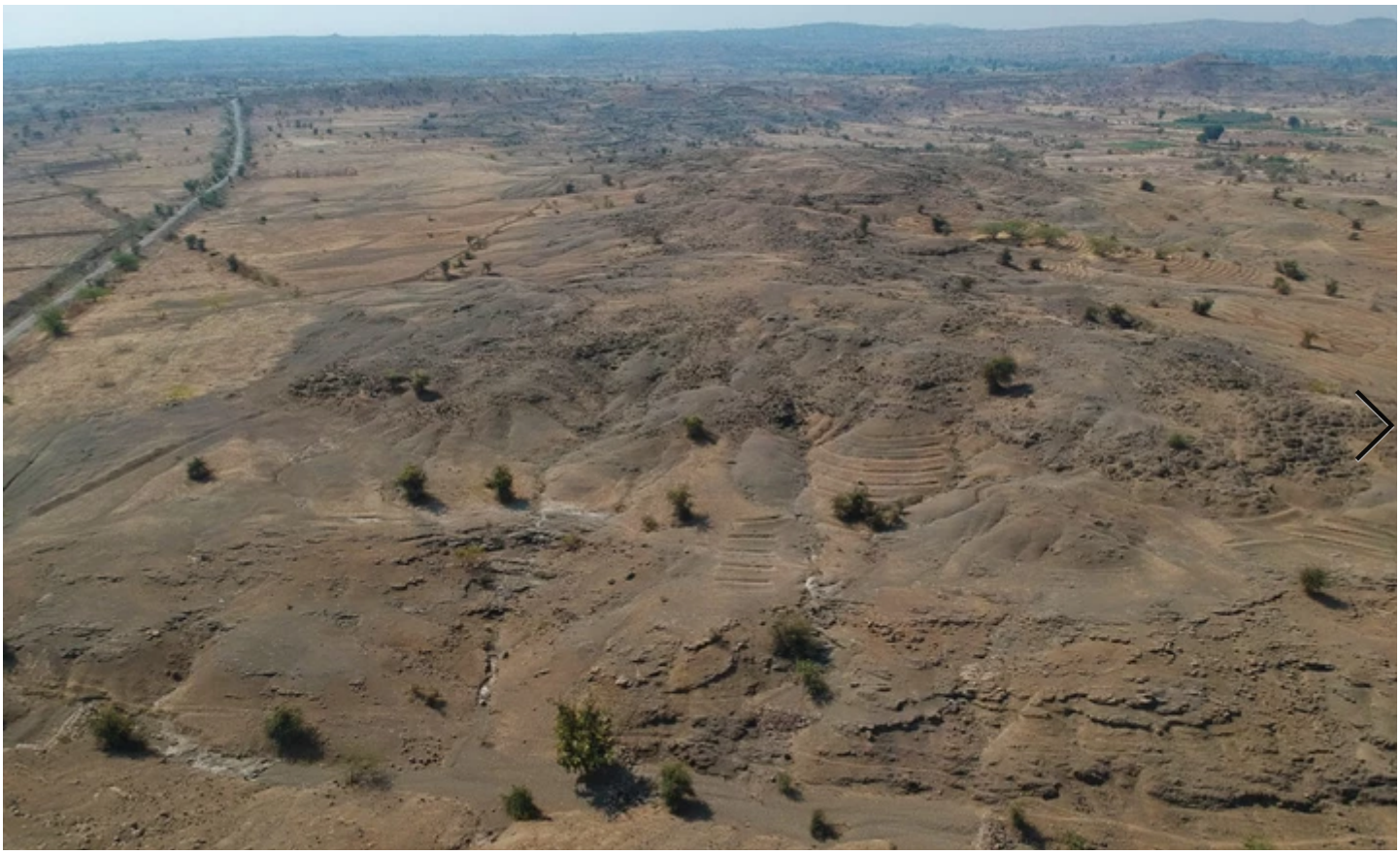
Yes, Green Vehicles are definitely the future. Around the globe, they are advertised and promoted as a sustainable life choice that will help us save fuel that we really don't have in abundance thereby lessening the threats by climate change. But in a real sense, they do have a different set of environmental challenges depending on how they are charged up i.e. how much coal is being burnt for the process and manufactured i.e the raw materials used in the making of the batteries like cobalt and lithium which are again rare elements.

What's New?

According to a newly crafted state law, California is required to test its water for years for microplastics and then ensure with the water providers that the quality of water is of safe drinking levels. The aim is to take

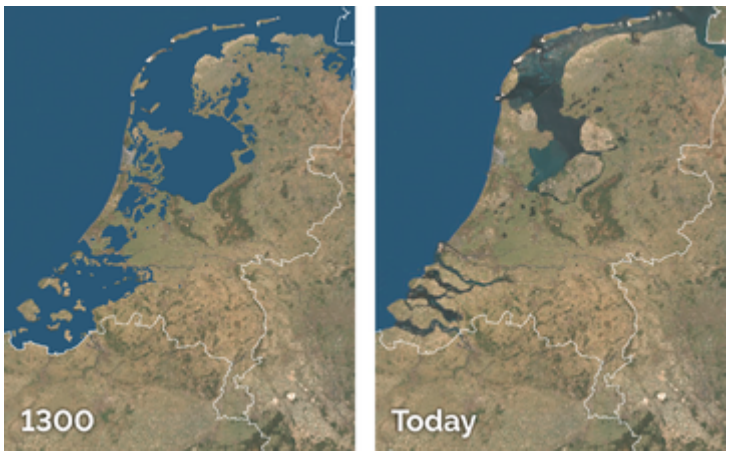
precautionary measures to tackle potential threats posed by microplastics because microplastics have already contaminated the environment, humans and animals. Microplastics are omnipresent. Be it in our toiletries, our synthetic clothes, oceans. All these collectively become a source of microplastic in the water which is there for our use and hence the measure taken by California is way too necessary.

Beacon of Hope!!!



Lamkani, a small village in Maharashtra, the place was known for its lush green grasslands that became barren enduring drought. But the community of the place has SUCCESSFULLY RESTORED over 400 hectares of its grassland through watershed management and traditional practices like 'Charai Bandhi' and 'Kurhad Bandhi'.

The Dutch Example



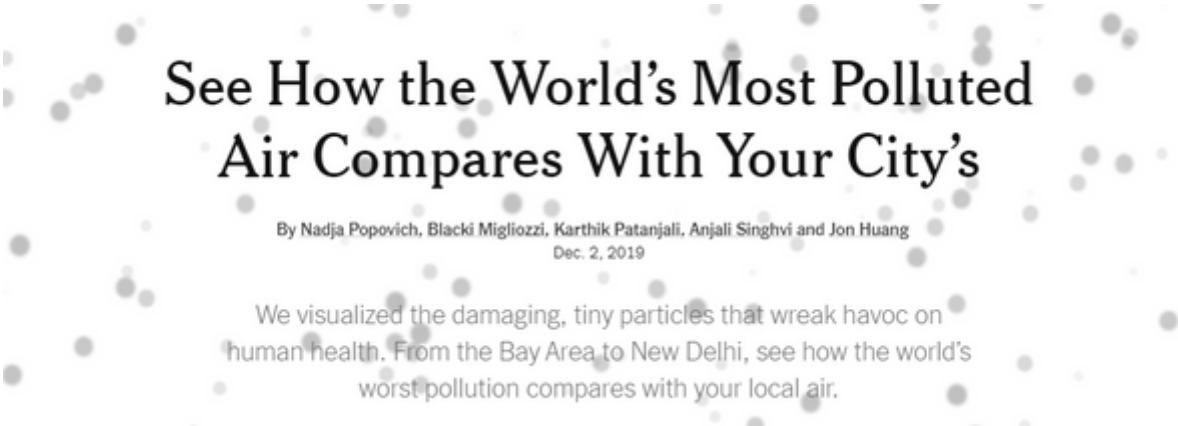
The Netherlands is an extremely flat country and therefore people tend to use cycles. The country is as flat as the sea and this creates a severe problem for the Netherlands - flooding and land erosion. The seas have been biting away chunks of Dutch land for long. And the Dutch, they're fighting it. They built dikes, walls of land with water on both sides of the wall, they first came into existence about 500 years ago. These walls prevent water from flowing across and therefore prevent erosion. Somewhere along with this, they set up water pumps powered by windmills and drained the water trapped away from the sea. On this drained piece of land, they started farming. They created new land out of the sea. They did to the sea, what the sea was doing to the lands of the rest of the world. But this was still relatively a small operation. Until 1932.
In 1932, they built a massive dike across a big portion of the sea. They're so massive, they had to create new states for these new lands. At present 17% of the Netherlands is land that used to be the sea. That is around 7000 sq km

There was a point in time the country was worried about how it would feed its growing population. But today it is the second-largest exporter of food in the world. The first is the USA (a country which is over 200 times larger).

Today, around 27% of the Netherlands is actually below sea level. This area is home to over 60% of the country's approximately 17 million people. It has an average elevation of 11 meters. A huge part of it is highly susceptible to flooding.

With the world's seas rising and land being lost. The Dutch are fighting and winning. They have plans chalked out till beyond the year 2100.

Give it a read!



An animated article that will help you to visualize what kind of world we are living in. This article shows the damaging, tiny particles that wreak havoc on human health on your screen. NYTimes has compared the air from the Bay Area to New Delhi. A must-read to understand how air pollution is slowly destroying us.

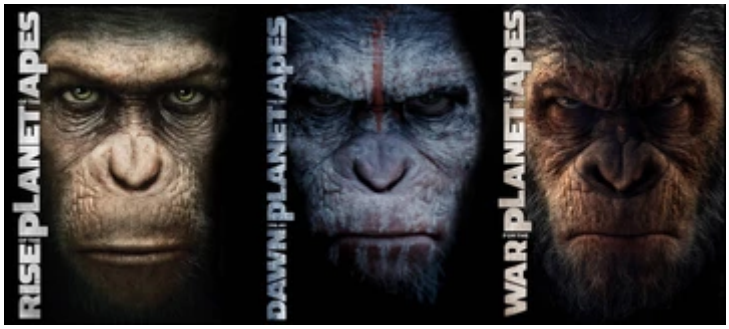
Link - See How the World's Most Polluted Air Compares With Your City's

What to Watch?

Natural World: Attenborough's Ark

Natural World: Attenborough's Ark is a TV series narrated and acted by Sir David Attenborough. In this series, Sir David Attenborough chooses his ten favourite animals that he would most like to save from extinction. He shows why they are so important and shares the ingenious work of biologists across the world who are helping to keep them alive.

Planet Of The Apes Trilogy (2011-2017)



Planet of the Apes is an American science fiction media franchise consisting of movies, comics, games etc. The movie plot revolves around a chimpanzee who got human-level intelligence from an experiment. But the virus that is injected into the monkey is killing humans. The movies trilogy shows the extinction of human beings and the revival of mother nature. The movie is full of action and a beautiful storyline.

What did you like about this fortnightly's The Raven? What did we miss? Let us know what you think:

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Curated with love by Shawn, Kasturi, Meddhansh, Ayush and Shivansh.