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Time to look at alternate sources of power near cities

Rajesh Tiwari
Publisher
rt@iccsr.org

AIR POLLUTION IMPACTS URBAN ECONOMIES THROUGH A REDUCTION IN LABOUR PRODUCTIVITY AND AN INCREASE IN EMPLOYEE ABSENCE, LEADING TO ECONOMIC LOSSES AND INCREASING HEALTH COSTS.

Residents of Delhi, Mumbai, Kolkata, Bangalore and Chennai are experiencing some of the worst health and economic impacts from coal pollution compared to those living in other major cities around the world.

It's time to look at renewable sources of power in Indian metros and big cities.

A new research released last by C40 Cities examined India's existing coal power plants and plans to expand India's coal fleet in the years ahead.

According to the study, under current plans major Indian cities would suffer 52,700 premature deaths, 31,300 preterm births, 46,800 asthma emergency hospital visits and 25.8 million days of sick-leave over the next decade.

India is the second largest coal user in the world. 55% of India's coal-generated electricity is generated within 500 km of these five megacities.

Air pollution from coal-fired power plants travels long distances and all of the coal plants within a wider geographical area (here defined as 500 km) put urban residents' health at risk, especially the young, the elderly and pregnant women.

The report suggests that state and national governments air quality plans should incorporate an early retirement of coal, starting with the oldest and most polluting units, alongside investing in clean energy instead of building new coal plants. C40's research shows that retiring 20% of existing coal plants (approximately 46.5 GW of old coal) and stopping the construction of new coal power near Delhi, Mumbai, Kolkata, Bangalore and Chennai would have significant benefits between 2020-2030.

Air pollution impacts urban economies through a reduction in labour productivity and an increase in employee absence, leading to economic losses and increasing health costs. In India, business leaders estimate that employee productivity decreases by 8-10% on high pollution days.

The research suggests that around 25.8 million sick days could be caused by air pollution exposure from coal power plants in major Indian C40 cities between 2020-2030 if the current proposed expansion of coal capacity takes place. Over the coming decade, the economic health costs associated with coal pollution is estimated at 46.5 billion USD, more than twice as much as India's total public health expenditure in 2018.

Based on the modelling, coal use in India must peak at the latest this year, and reduce by 20% between 2021 and 2030, with the entire fleet of Indian coal plants being retired by the year 2045 to reduce emissions in line with a 1.5 degree C climate scenario. This scenario can support India to go beyond its current climate commitments, while drastically improving urban air quality and minimising economic losses.

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Editor: Rajesh Tiwari

India's Most Loved Cadbury Chocolates Reinforces its Commitment to Sustainable Cocoa Sourcing

Mondelez India, one of India's leading snacking company, announced that the country's most loved Cadbury chocolate brands like Cadbury Dairy Milk, Cadbury Dairy Milk Silk, Cadbury Bournville, Cadbury Dark Milk and Cadbury Temptations will now carry the Cocoa Life logo on the front of our packs. The Cocoa Life programme is the company's commitment and promise to be sourcing sustainable cocoa for chocolate in India. Cocoa Life is Mondelez International's cocoa sustainability program that helps communities thrive in six key cocoa-growing origins – Ghana, Côte d'Ivoire, Indonesia, the Dominican Republic, and Brazil, in addition to India. The company introduced cocoa farming in India, 55+ years ago in the four states of South India – Andhra Pradesh, Karnataka, Kerala, & Tamil Nadu, and has reached 100,000 cocoa farmers over the years.

Commenting on this milestone, Anil Viswanathan, Senior Director – Marketing, Mondelez India, said, "At Mondelēz International, we are passionate about chocolates. Cocoa is the essence of our chocolate and vital to our business, so we ensure it is "made right". Making it right means helping the cocoa farmers gain knowledge and skills to improve their livelihoods, strengthen their communities and inspire the next generation of cocoa farmers.

Through the Cocoa Life programme, we are creating a movement for lasting change, rooted in deep understanding through sector-wide collaboration and partnership. We believe that consumers are looking for their most trusted brands to have a point of view on Sustainability. Cocoa Life will thus become another strong pillar for Cadbury to strengthen its purpose of Generosity. When our consumers choose chocolates with the Cocoa Life logo, they have contributed meaningfully to a sustainable future of our planet and our communities."

The Cocoa Life programme in India has been active since 1965 and has already reached out to a community of more than 100,000 farmers, helping them understand and subsequently adopt the art of cocoa farming. The company today sources a large part of its cocoa requirements indigenously and is the single largest corporate organization to nurture and promote cocoa cultivation in India. The initiative roots from the company's global vision to transform the lives and livelihoods of cocoa farmers and their communities, and to inspire the next generation.

"Cocoa Life builds on our proud legacy and over five decades long relationship with India's cocoa farming community, providing us with an opportunity to locally source cocoa beans in India. Through this program, we want to extend our relationship beyond being just a buyer to a fully committed partner for all our cocoa farmers and their communities. We also foresee India playing a very crucial role in the overall strategy of scaling the program even further, globally, so that by 2025, all chocolate brands are able source their cocoa from Cocoa Life." said Roopak Bhat, Cocoa Operations Lead – India, Mondelēz International.

IIT Jodhpur researchers use plants to generate electricity from wastewater in microbial fuel cells

Researchers from the Environmental Biotechnology Lab at Indian Institute of Technology Jodhpur led by Dr Meenu Chhabra, Associate Professor, Department of Bioscience & Bioengineering, IIT Jodhpur, have demonstrated for the first time that plant-based microbial fuel cells can generate power profitably from wastewater compared to algae-based systems. The results of their work, sponsored by the Department of Science and Technology, Govt. of India, through the INSPIRE Ph.D. fellowship scheme, has been recently published in the journal, Bioresource Technology. The paper has been co-authored by Arti Sharma, Sanjana Gajbhiye, Sweta Chauhan, and Dr Chhabra.

Biofuel Research Group of IIT Jodhpur

Wastewater treatment is an important activity in any civilized society, and the increasing generation of large amounts of domestic wastewater has necessitated development of newer treatment methods that are energy efficient and scalable. Organic waste materials have a lot of latent energy – domestic waste contains nine times more energy than the treatment consumes – there has been interest all over the world to generate energy from waste during the process of waste treatment.

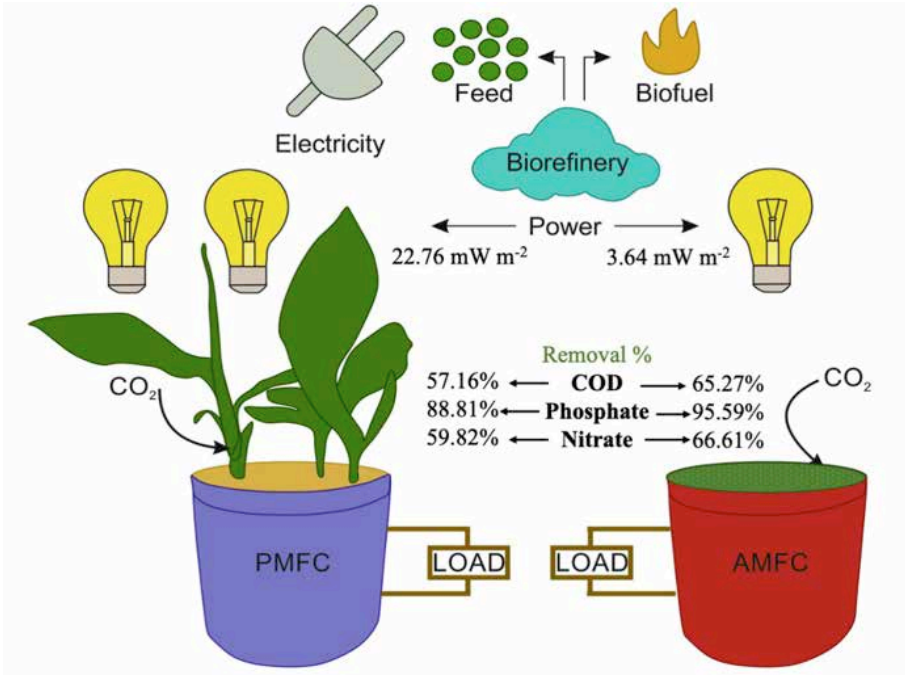


Illustration - Schematic Diagram_Biofuel Research

"A Microbial Fuel Cell (MFC) is a device that uses microbes to convert organic matter in wastewater directly into electrical energy," explained Dr. Chhabra. While the idea of using microbes to produce electricity was proposed as early as 1911 by Michael Potter, a professor of botany at the University of Durham, its use in fuel cells is a recent development and promises to solve two separate problems – the treatment of waste and energy generation. In MFCs, live microbes act on the waste organic matter to release the electrons that are extracted with an external load, thereby generating power. Photosynthetic MFCs uses algae or plant to generate oxygen from waste at the cathode of the fuel cell. Algae-based systems have been extensively

IIT Madras Develops India's First Indigenous Motorized Wheelchair Vehicle

Imports account for 2.5 lakh of the total 3 lakh wheelchairs sold in India annually; Products with comparable features are available only in the global market and are three to five times more expensive

Dr Rajalakshmi from Bangalore on her NeoFly

Indian Institute of Technology Madras has developed India's first indigenous motorized wheelchair vehicle that can be used not only on roads but even on uneven terrains.

Called 'NeoBolt', it has a maximum speed of 25 kmph and travels up to 25 km per charge. It empowers wheelchair users with a convenient, safe and low-cost mode of outdoor mobility when compared to cars, auto rickshaws or modified scooters. NeoBolt is powered by a Lithium-Ion Battery that will give 25 Kms for every charge.

Throughout the development process, the IIT-M Researchers collaborated extensively with organizations and hospitals working among people with locomotor disability and built the products factoring in their experiences and making constant design adjustments.

NeoBolt was developed by a team led by Prof. Sujatha Srinivasan, Department of Mechanical Engineering, IIT Madras, and has been commercialized through a startup called 'NeoMotion.' The Startup has been co-founded by Prof. Sujatha Srinivasan and an IIT Madras Alumnus Mr. Swostik Sourav Dash, who is the CEO of NeoMotion.

Prof. Sujatha Srinivasan also led the team that developed India's first indigenously-designed Standing Wheelchair called 'Arise,' which enables a wheelchair user to shift from sitting to standing position.

Highlighting the vision behind developing these products, Prof. Sujatha Srinivasan, Faculty Head, TTK Center for Rehabilitation Research and Device Development (R2D2), IIT Madras, said, "Our centre's vision is to transform the disability landscape in India by creating functional and affordable assistive devices. How often do you see a wheelchair user at a school, an office, a shop or a theatre? Wheelchair users are typically restricted to the four walls of their home, which affects their community participation and their ability to contribute to the economy." Further, Prof. Sujatha Srinivasan said, "NeoMotion, the start-up from R2D2 incubated at IIT Madras, is here to transform the landscape through game-changing and world-class wheelchair products designed and made in India – for India and the world."

The start-up has also developed and commercially launched 'NeoFly,' a personalized wheelchair designed to enhance health and lifestyle. As much as 18 customizations ensure a perfect fit to the user's requirements. "NeoFly is the first Indian Wheelchair that is customised to the user. It is built to provide comfort, efficient propulsion, higher manoeuvrability and superior ergonomics. The motor-powered attachment, NeoBolt converts NeoFly

CSR INDIA UNITED

Dabur rolls out Vaccination on Wheels in Uttarakhand

Joins hands with Udham Singh Nagar District Administration to vaccinate residents of 21 villages

Deepening its association with India's war against COVID-19, the world's leading Science-based Ayurveda major Dabur India Ltd has joined forces with the District Administration of Udham Singh Nagar in Uttarakhand to roll out 'Vaccination On Wheels', a door-to-door vaccination campaign to cover 21 villages in Rudrapur and Gadarpur blocks in the state. The week-long drive seeks to take COVID vaccines to the doorstep of every villager in these two blocks and help the state government in its mission to increase immunization penetration and achieve vaccination for all adults in the region.

"A special vehicle has been designed, which will travel to different villages in Rudrapur and Gadarpur blocks of Udham Singh Nagar district to vaccinate priority groups, including senior citizens and specially abled individuals. Since a number of residents, particularly from the villages, were finding it difficult to go to a vaccination centre, we decided to bring the facility to their doorstep. The 'vaccination on wheels' initiative would administer over 150 doses of COVID vaccines a day. Through this initiative, we have already helped vaccinate over 500 adults in these villages," Dabur India Ltd CSR Head A Sudhakar said.

The 'Vaccination of Wheels' vehicle would cover 10 villages in Rudrapur block and 12 villages in Gadarpur block under this drive. The joint initiative will enable ease of access to vaccines for the underprivileged communities and build equity that will collectively accelerate a return to normalcy.

"The COVID pandemic has already affected many lives and livelihood across the country. Vaccination is the best remedy available to fight this pandemic. With this initiative, our intent is to provide the community easy access to vaccines, accelerate the immunisation rate in the region. We are alongside working towards dispelling myths around vaccines and vaccination. This is in line with our motto of being dedicated to the Health & Well-Being of every Household," Mr. Sudhakar added.

With COVID emerging as one of the biggest crises all of mankind has faced in the recent times, Dabur India Ltd realigned its CSR strategy to focus on fighting COVID and rolled out initiatives aimed at providing relief to COVID patients, frontline Police, Health and Sanitation workers, migrant workers and community members during these unprecedented times. As part of this, Dabur has lent support to various dedicated COVID Care Centres across India, besides supporting distressed families by providing them groceries and vegetables, Nutrition and Health Care products and face masks to tide over these troubled times.

Aahwahan Foundation flags off Distribution of 1 Lakh Health Kits for needy families

The foundation till date has provided free medical assistance and consultancy to around 27 thousand people

Gearing up to a blunt possibility of third COVID wave that can impact numerous families, Founder of Aahwahan Foundation, Mr. Braja Kishore Pradhan today flagged off a distribution drive of family health kits for frontline workers, daily wage workers, government school students, slum dwellers, pavement dwellers, and others.

The COVID-19 pandemic has hit lower-middle-class families and daily wage workers the most, who are stranded in the city without adequate money, food, or shelter. To meet all of the obligatory COVID-19 guidelines, people have to purchase many healthcare items such as masks, gloves, and sanitizers, which add to their already high costs. Given the situation of Indian families, the virus has a high probability of spreading due to a large number of individuals in a single-family.

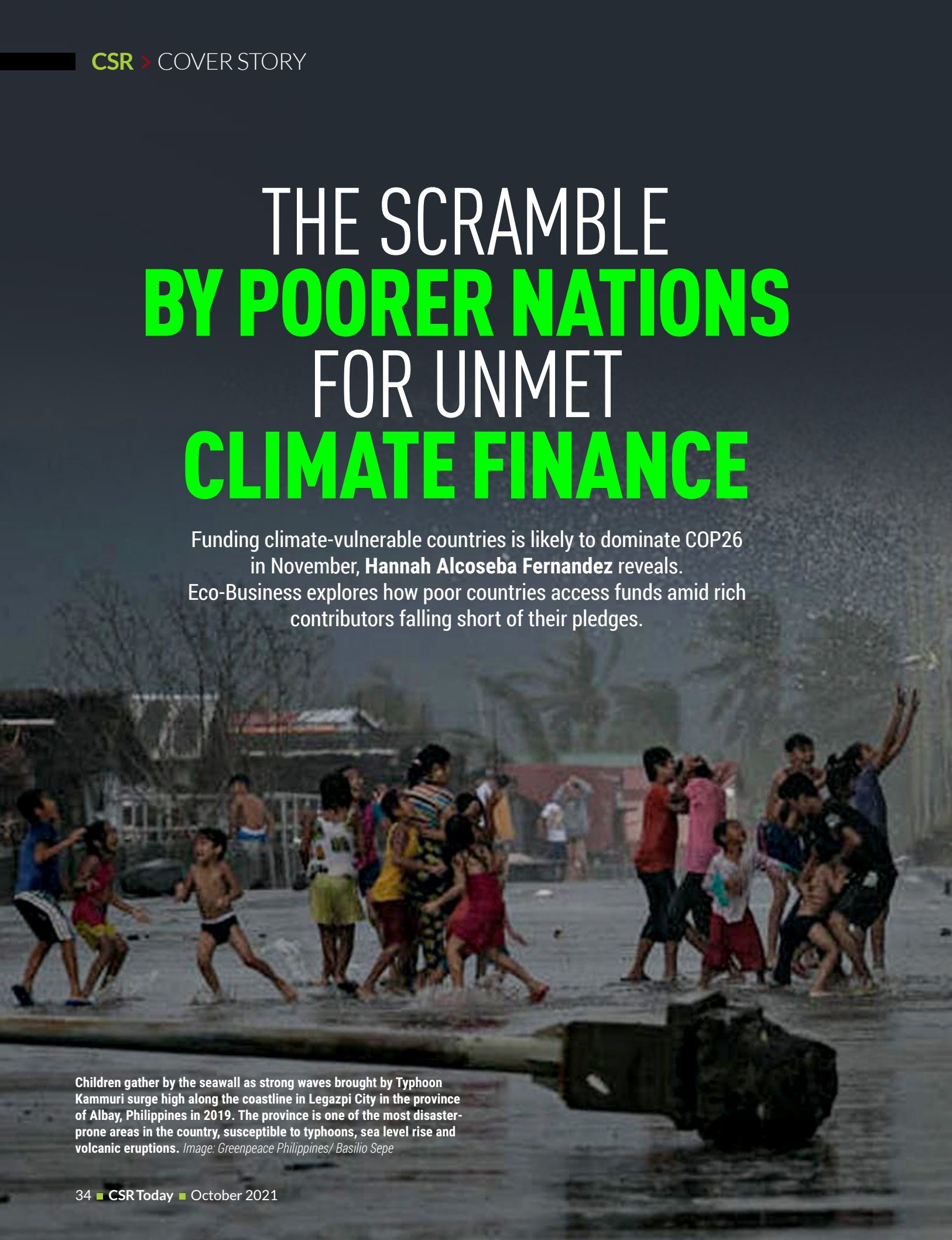
Understanding this situation, many non-profits, volunteer organizations, and even companies have initiated campaigns to help the needy. One such organization is Aahwahan Foundation who is always stretching out its helping hands to help the poor and vulnerable citizens. The Foundation today distributed 14,302 health kits to families in need as a part of its 'Family Health Kit Initiative.'

"Each family health kit costs 5000 rupees and contains an oximeter, a thermometer, sanitizers, a hundred masks (both N-95 and disposable), 100 gloves, and vitamin C tablets. We are aiming to provide these kits to 1 Lakh of families across India including cities like Bangaluru, Delhi, Mumbai, Pune, Hyderabad, Chennai and Bhubaneshwar." Says, Braja Kishore Pradhan, Founder of Aahwahan Foundation.

Further adding to this, he also said that "The Foundation with a team of 100 doctors and 3600 volunteers has been continuously trying to help the healthcare system of country. We were able to provide 500 oxygen concentrators, 1000 oxygen cylinders, 900 Covid beds, 1 Lakh grocery kits, 46 thousand RTPCR kits, 10 ICU beds, 63 thousand meals per day across India and provided free consultations for approximately 27 thousand people.

THE SCRAMBLE BY POORER NATIONS FOR UNMET CLIMATE FINANCE

Funding climate-vulnerable countries is likely to dominate COP26 in November, **Hannah Alcoseba Fernandez** reveals. Eco-Business explores how poor countries access funds amid rich contributors falling short of their pledges.



Children gather by the seawall as strong waves brought by Typhoon Kammuri surge high along the coastline in Legazpi City in the province of Albay, Philippines in 2019. The province is one of the most disaster-prone areas in the country, susceptible to typhoons, sea level rise and volcanic eruptions. *Image: Greenpeace Philippines/ Basilio Sepe*

Sourcing the finance for climate adaption and mitigation efforts will be one of the biggest challenges faced by disaster-prone countries in forging a new agreement at key United Nations climate talks in November.

Poor countries were promised US$100 billion a year in climate finance by 2020 by developed country governments more than a decade ago. But rich countries will continue to miss the longstanding pledge to US$100 billion a year for the next four years, according to analysis by Oxfam International.

Data from the Organisation for Economic Cooperation and Development (OECD) on Friday showed that climate finance reached only US$80 billion in 2019. Data was not available for 2020, but the US$100 billion target is likely to be missed amid the economic damage wreaked by the pandemic. Oxfam last year revealed the true value of financing is US$22 billion—only a quarter of what developed countries had reported.

Ahead of the 26th Conference of Parties (COP) in Glasgow, Scotland, negotiating blocs from developing countries have called the shortfall an "emotive issue" within the climate talks, that "damages trust" among parties.

"Issues identified include shortfalls in delivery, opaqueness of accounting by donors, problems with access, and the increasing presence of loans in the portfolio. These are in addition to the meagre resources allocated to adaptation," read a position paper released in July by think-tank Powershift Africa, backed by the Climate Vulnerable Forum, Least Developed Countries, and the Alliance of Small Island States.

Climate negotiators from the least developed nations have pushed back against the majority of pledged finance being given as loans, with only 20 per cent awarded as grants, adding to the debt-burden of poor nations whose economies have buckled under the pressure of the Covid-19 pandemic. This is likely to be a point of contension at the talks in November, according to one negotiator.

With 40 days to go before the climate summit, Eco-Business explores what at-risk low-income countries have to grapple with in order to access the financing promised to help protect them against the worst impacts of climate change.

1. WHY DO DEVELOPED COUNTRIES NEED TO PLEDGE CLIMATE FUNDING FOR POORER NATIONS?

As the greatest contributor to the climate crisis, developed countries are expected to take the lead in the mobilisation of funds needed to address climate change, based on the principle of the common but differentiated responsibility (CBDR) under the United Nations Framework Convention on Climate Change (UNFCCC).

The CBDR is a principle of international environmental establishing that all states are responsible for addressing global environmental destruction yet not equally responsible.

At the UN climate summit in Copenhagen, Denmark in 2009, all developed countries agreed to provide US$100 billion in public and private finance each year by 2020 and through to 2025 to help developing nations tackle climate change.

2. HOW DOES CLIMATE FUNDING REACH RECIPIENT COUNTRIES?

Contributor countries usually channel the funding for developing countries either through multilateral institutions or direct access accredited agencies which mobilise climate finance in a country.

In the international access modality, financial resources are managed by multilateral agencies like the Asian Development Bank (ADB), World Bank, European Bank

IIT Jodhpur launches Thar DESIGNS to conserve and restore the Thar Desert

This unique initiative is a part of the Jodhpur City Knowledge and Innovation Cluster to conserve and restore the natural deserts and its minerals and flora & fauna

Under the aegis of the Jodhpur City Knowledge and Innovation Cluster, Indian Institute of Technology Jodhpur has launched Thar Desert Ecosystem Sciences Guided by Nature and Selection (DESIGNS), a unique initiative to conserve and restore the Thar desert, its minerals and medicines, and its flora and fauna by carrying out Ecosystem phenomics through transdisciplinary framework of Medical, Engineering, Environmental and Life Sciences.

Thar is a hot desert, unique to the Indian subcontinent and is characterized by high maximum temperature with large diurnal variations, scanty rainfall, extreme aridity, and intense UV radiations. This has been one of the largest natural laboratories for evolving innovative 'designs' that, ensures adaptation and survival of its constituent species, their interdependencies and the conservation of the entire ecosystem

The impact of loss of natural deserts is immense as these habitats are rich in flora and fauna as well as minerals and medicines that nurture and maintain different life forms on earth. Often considered as wastelands, deserts are crucial for stabilization of climate. Any shift in climate change or anthropogenic activity can lead to maladaptations for organisms who live at the ebb of physiological extremes, loss of diversity through extirpations and ultimately an ecosystem collapse. This threatens the lives and livelihood of the native inhabitants

To address this, the Jodhpur City Knowledge and Innovation Cluster (JCKIC) has under one umbrella brought together organizations from the Engineering, Space research, Medical, Agricultural, Zoological and Forestry that have carried out

focused efforts in tackling diverse aspects of the Thar desert. This collaboration includes unique projects that address the complex and networked issues of the desert in an integrative framework.

Speaking about the Thar DESIGNS, Prof. Mitali Mukerji, Professor and Head, Department of Bioscience and Bioengineering, said, "Thar DESIGNS aim to disseminate knowledge and encourage participation through a citizen science approach and inculcate design thinking across the entire collaborative network."

Under this initiative, the researchers will use IOT enabled devices and Big Data analytics framework to crowd source observations from the local ecosystem to the regional level keeping the cultural context and traditional medicine knowledge in perspective. Researchers would also integrate computer vision and Machine learning along with domain knowledge to infer links between environment, phenotype and genotype at geo-spatio temporal scales and identify signatures of Thar DESIGNS for early actionable intervention strategies. This knowledge generation will result in providing a 'Desert Ecosystem Knowledge Grid' that could foster the cycle of engineering- research-development-commercialization.

This data grid will be helpful in finding solutions for management of diseases common and endemic to desert regions, novel bioprospecting opportunities and innovative bio-inspired engineering designs. It could also help evolve unique strategies for ecological conservation and restoration that ensures sustained livelihood for its inhabitants.

Thar DESIGNS is also likely to propel the growth of new industry and capacity building for next-generation tech-savvy social and eco-entrepreneurs. An AI-assisted recommendation engine for sustenance of desert ecosystems based on the interacting principles of desert ecology, evolutionary biology and culture would also be of enormous utility for policymakers and diverse stakeholders.

A fisherman sorts through fish on a Chinese fishing vessel in Guinea.
Image: Pierre Gleizes/Greenpeace

BILLIONS IN FISHING SUBSIDIES FINANCE SOCIAL, ECOLOGICAL HARM: REPORT

A new report found that the world's top 10 fishing nations are spending billions of dollars on harmful fishing subsidies to not only exploit their own domestic waters, but to fish in the high seas and the waters of other nations, writes **Elizabeth Claire Alberts**, Mongabay.com

Tropical cyclones 'can improve mangrove health'

The health of India's mangrove forests, important to mitigate the effects of sea-level rise caused by climate warming, is influenced by tropical storms that change nutrient levels of coastal waters, according to new research.

Mangrove restoration can provide mitigation and adaptation solutions to climate change and support progress towards the UN's Sustainable Development Goals more broadly, says Wetland International, a non-profit dedicated to the conservation and restoration of wetlands.

The study, published in Scientific Reports, says that mangrove ecosystems have high rates of carbon sequestration which is reflected in their vast aboveground biomass and soil carbon content. Some 57 per cent of the world's mangrove species can be found in India although the country only has about 3 per cent of the world's mangrove forests.

Dina Nethisa Rasquinha, lead author of the study and researcher at the department of geography, University of Georgia, US, says that the study provides insights into how mangrove productivity may change with fluctuating frequency and magnitude of cyclones under a changing climate. "Cyclones and storm events in the last two decades show a net positive effect on long-term mangrove carbon assimilation abilities across the Indian subcontinent," Rasquinha tells SciDev.Net.

"Storm-induced nutrient fluxes and freshwater supply play a crucial role in influencing productivity gradients in mangroves," says Rasquinha. "However, with increasing intensity of storms in the last few years, the likelihood of this trend continuing needs further research."

Mangroves in Pichavaram, Tamil Nadu, India. *Image: VasuVR, CC BY-SA 3.0.*

Geetha Gopinath, environmental educator and assistant professor at India's Central University of Hyderabad, tells SciDev.Net that the study on how tropical cyclones shape mangrove productivity gradients is unique and opens new avenues in climate change research. "Mangrove forests are known to capture massive amounts of carbon and sequester (trap and store) it for millennia."

The study highlights differences in mangrove extent, species diversity and productivity between the west and east coast of India attributable to large estuarine environments shaped by the deltas of the Ganga, Brahmaputra, Mahanadi, Krishna, Godavari, and Cauvery Rivers.

Earlier studies have said that the diversity of mangrove species is higher on the east coast of India than on the west coast. Previous studies have also found that the losses occurring from cyclone events and even tsunamis were far less in coasts protected by mangrove forest cover than in other areas.

R. Sathyajith, an environmental activist based in Kerala state, says however that mangroves are declining rapidly as they are getting degraded by agriculture, aquaculture, tourism and urban development. "Over the last century [India] lost nearly half of its mangrove areas." Sathyajith says the loss of mangroves is unfortunate because they are among the first lines of defence against incoming cyclones, storm surges and wind shear and more than proved their worth during the devastating Asian tsunami of 2004.

Maps developed by the Global Mangrove Watch team shows that the world had some 136,000 square kilometres of mangroves in 2016. South-East Asia is home to almost a third of all mangroves, some 20 per cent of it in Indonesia.

Deepak Mishra, co-author of the study, says that an improved understanding of mangrove ecology at the local, regional and global levels is necessary to manage mangrove forests and integrate the newly-generated data with global research efforts.

This article was originally published on SciDev.Net. Read the original article. (Source: https://www.eco-business.com/news/tropical-cyclones-can-improve-mangrove-health/)

The new draft of the UN's biodiversity framework aims to have at least 20 per cent of degraded freshwater, marine and terrestrial ecosystems under restoration by 2030.
Image: Jani Sipilä/Greenpeace

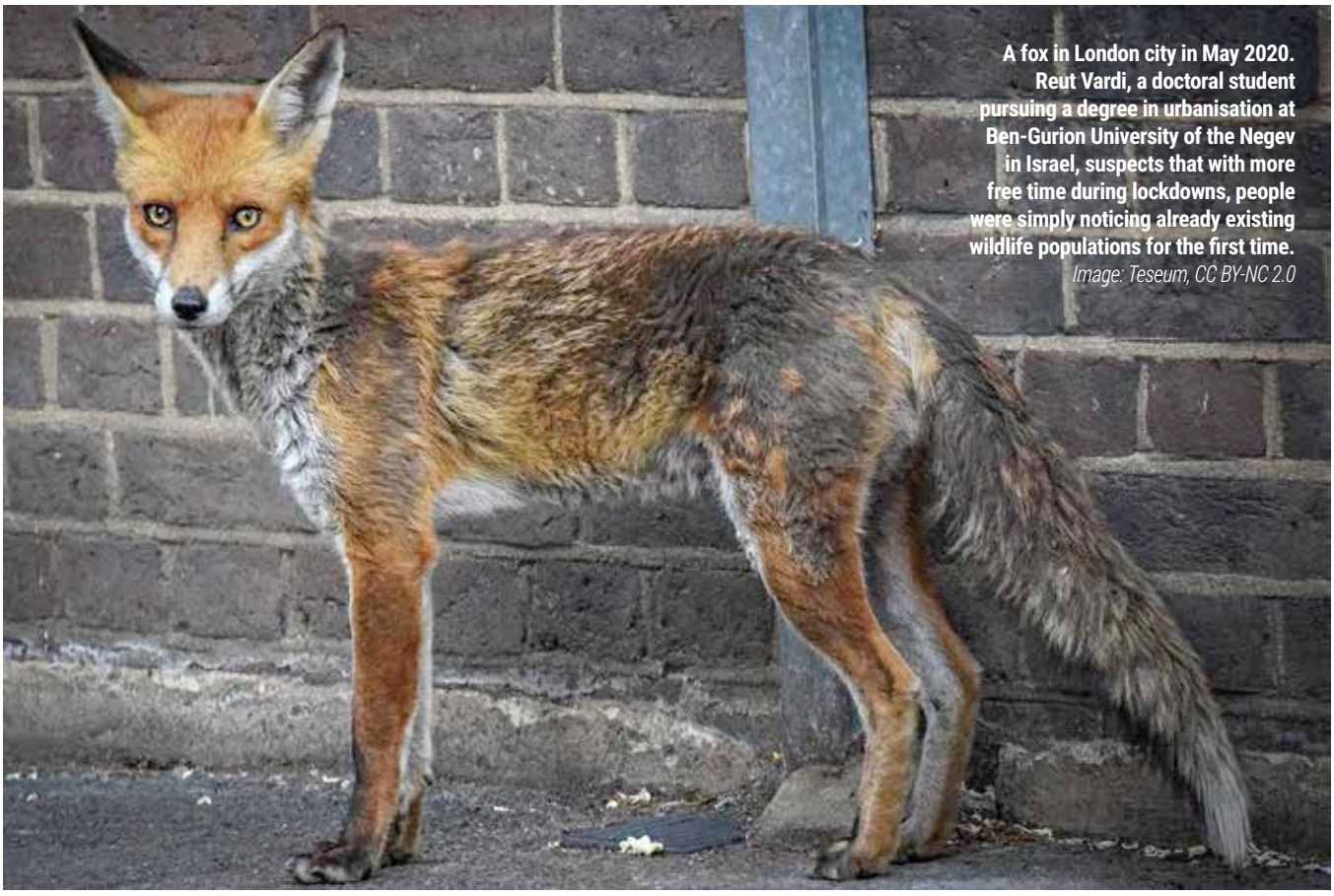
CLOSING THE NATURE-FINANCE GAP

Although the biodiversity crisis is intimately linked to the climate one, the financing to address it is woefully inadequate. With a new global biodiversity plan now in the works, the world has an opportunity – and a duty – to start making up for lost time, states **Andrew Deutz**

If you want to understand policy choices, it is said, "follow the money." Inspired by that advice, we at The Nature Conservancy (in partnership with the Paulson Institute and the Cornell Atkinson Center for Sustainability) crunched the numbers to see what it would cost to preserve biodiversity – the variety and abundance of life on earth. We found that while the world spends US$124-143 billion per year (as of 2019) on economic activity that benefits nature, it spends much more on activities that damage it. Moreover, to protect and then begin to restore nature, we urgently need to close a $598-824 billion annual financing gap.

This gap has had devastating consequences. By the start of this decade, the world had failed to achieve a single one of the 2010 Aichi Targets, the world's blueprint for biodiversity conservation. Now, another plan is in the works.

Over the past two years, scientists and government officials have been



A fox in London city in May 2020. Reut Vardi, a doctoral student pursuing a degree in urbanisation at Ben-Gurion University of the Negev in Israel, suspects that with more free time during lockdowns, people were simply noticing already existing wildlife populations for the first time.
Image: Teseum, CC BY-NC 2.0

Studies debunk 'nature is healing' portrayal from 2020 lockdowns

Several new studies have tried to tally up the costs and benefits to the environment as a result of lockdowns around the world last year in response to the Covid-19 pandemic, writes By **Jansen Baier**

When the world went on lockdown, nature got a reprieve, or so it seemed. Dolphins swam in the Hudson River, Los Angeles' famed smog dissipated, and wild animals were reportedly reclaiming cities. The narrative presented in the media was clear: the Covid-19 lockdowns last year allowed nature and the environment a temporary reprieve. But how much did lockdown really impact