

+ COVER STORY | READERS-WRITERS | FOR THE RECORD

gobar times

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A DOWN TO EARTH SUPPLEMENT FOR THE YOUNG AND CURIOUS



THE MERRY WORRY!

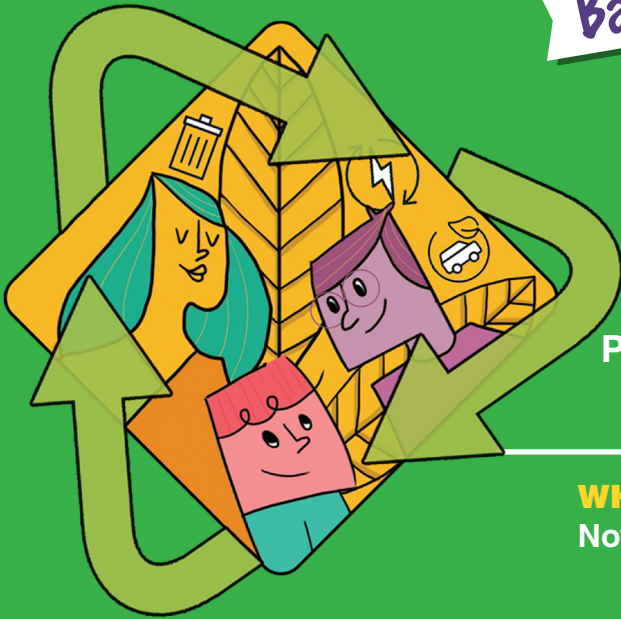
Jingle bell, smoggy spell,
spreading all the way...
Oh no fun this 'warming' is
When Santa sweats all day!



Back to school

THE GSP AUDIT FOR SCHOOLS IS NOW OPEN

Participate now and take a step towards becoming a green school



WHEN

Nov'21-Feb'22

WHO CAN PARTICIPATE

Schools registered with GSP
(Green Schools Programme)

GO GREEN WITH US!

Inviting all schools and their young environmentalists to take a step towards becoming a green school with GSP Audit!

The GSP audit for schools is back in a new avatar to help you assess your school's resource consumption. Here are a few tips to help you begin:

1. Identify a team of around 10 students for each audit section.
2. Report the latest data and practices for each section carefully.
3. Every question in a section needs to be answered to move to the next section.
4. Remember to upload pictures and documents (not more than 100 KB) to support your data.

To know more, please visit www.greenschoolsprogramme.org or write to us at support@greenschoolsprogramme.org

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Green strokes



Secret Diary of Santa

I am confused!

Gone are the days when I used to be very joyous and happy about distributing gifts and toys to you all. I am growing old and over the last few decades my job is becoming tougher and challenging with every passing day. Well, every passing year to be precise!

But why? Let me explain.

Last year, I couldn't go out due to the COVID lockdown. No shops were open from where I could purchase any toys. But I must acknowledge that it was after several decades that I experienced such nice, pollution-free weather.

So, to compensate for my journey cancelled last year, I decided to visit as many kids as possible this year. When I was on my toy-shopping spree, suddenly, one of my reindeer reminded me that most of the toys nowadays are made of plastic using synthetic paints. They are not only harmful for the kids' health but also cause plastic pollution. So, how could I purchase them after knowing this? Thus, I

had to abandon my plan.

You know, placing coal inside your socks is also a part of my visit but there are issues with the coal as well. I am told that the global community is shifting to renewable resources. I wonder if I am supposed to place some solar panels inside your socks now!

Next, come sweets. Now, my other reindeer raised some serious doubts because sugar is one of the biggest causes of obesity among children.

In summary, there are harmful chemicals in toys, 'coal' is now a dirty word, and there is a danger of excess sugar in sweets and chocolates. Further, there is low visibility due to high air pollution these days. I was upset and thought about what should I do this Christmas? I feel that the best way to celebrate a festival is to celebrate Nature and the best way to do so is by conserving it.

Merry Christmas, Happy New Year, and Happy Holidays!

Freeze Frame by Vikas Choudhary



The Smoking Sky: Air pollution caused due to stubble burning—eliminating crop residue for preparing the farm field—in Amritsar, Punjab.

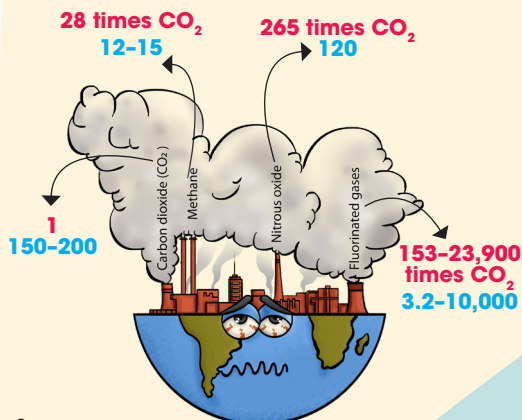
This space is for young and budding wildlife photographers who wish to share their work with us!

Send us your best pics at young@downtoearth.org.in

Digits speak

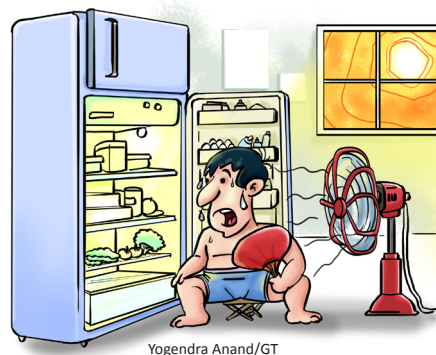
How the greenhouse gases (GHGs) warm our planet can be understood through their 'warming potential' and 'lifespan'. The higher their warming capability, the more they will heat the atmosphere. Also, the longer they stay in the atmosphere, the more they will warm it. Given below are some highly lethal GHGs.

■ Warming potential (in 100 years)
■ Lifespan (in years)



Source: UN IPCC reports

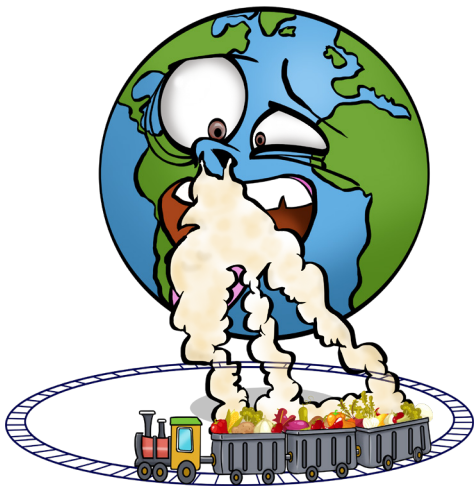
Deathly Climate



Yogendra Anand/GT

A Canadian woman could be the world's first person 'suffering from climate change.' She developed acute breathing problems due to heatwaves and poor

air quality. Record-breaking heat in 2020-21 in British Columbia in Canada might have easily killed over 500 people in the region. In fact, heatwaves have already been responsible for 'undeniable climate change deaths.' In 2018, over a thousand people died in Japan when temperatures shot 41°C, a rare sight over there. Scientists at the Japan Meteorological Agency investigated this weather phenomenon using a new branch of meteorology called 'attribution science,' which connected these deaths to global warming.



Food Miles

The trend of buying exotic fruits and seasonal vegetables throughout the year has resulted in their early harvesting. This is done to transport them to consumers residing miles away on time. Early harvesting compromises the flavour and nutrition of the food while damaging the environment. 'Food Miles' is a measure to assess the sustainability of such food production and consumption. It is calculated as the distance travelled by any food before it reaches the plate. As transportation increases, carbon emissions go up, contributing to global warming. Foods with lesser food miles are better both for human health and the environment.

It's time to say: enough. Enough of brutalizing biodiversity. Enough of killing ourselves with carbon. Enough of treating nature like a toilet

Antonio Guterres
Secretary-General,
United Nations

Medicine Man: Upendranath Brahmachari (1873-1946)

The scientist and medical practitioner who almost got India its first Nobel Prize in Medicine in 1929 and Physiology in 1942, Upendranath Brahmachari is a forgotten polymath. Born in 1873, in Jamalpur, Bihar, Upendranath loved the sciences from early childhood.



He pursued his Masters in Chemistry from Presidency College, Calcutta and a PhD from Calcutta Medical College. In 1905, he was appointed as a teacher and physician at Campbell Medical College, where he conducted further research.

Brahmachari's most outstanding contribution was in the field of Kala Azar (black fever), a protozoal infection. This epidemic affected millions of children and adults, particularly, in Assam, Bengal, and Bihar. It is characterised by enlarged spleen and liver among other symptoms. Working in an ill-equipped lab, which he recalled as a 'place of pilgrimage,' he discovered the most effective remedy of Kala Azar called Urea-Stibamine in 1921. Brahmachari also worked on several other ailments like malaria, blackwater fever, diabetes, filariasis, influenza, leprosy, and syphilis.

Brahmachari was associated with several prestigious institutions, like the Indian Red Cross Society, and made generous donations. In 1924, the British government conferred the title of 'Raibahadur' on Brahmachari. This was soon followed by knighthood for his lifetime contributions to humanity.



Ashu Ratra

Nurturing Environmental Consciousness

Inculcating environmental sensitivity among youngsters through environmental citizenship, trained teachers, green ambassadors, technology and innovation

Climate change is no longer a discussion that can happen in silos. Increasing carbon footprint and its impact on the 21st century environment is becoming part of many daily conversations in schools. But to achieve long term goals, more needs to be done.

India has the lowest per capita emissions compared to the major world economies including the US, China and the European Union. Despite this fact, the impact of climate change has become evident in our country through rising levels of air pollution and extreme weather situations. Therefore, India is an active stakeholder in shouldering the responsibility with its global partners in combating the climate crisis.

It's time for educators to take cognizance of this fact and delve deeper on why climate change is not a one-

country issue but needs individual, local, and global intervention.

The role of schools is to break the notion that protecting the environment is only the responsibility of the government. We need to remember that the foundational thinking of an individual is shaped during his/her school days. Therefore, nurturing children who will be leaders of tomorrow—possessing the right mindset, skills, and vision towards environmental preservation—is important.

Here are some measures that schools can take for students to make them environmentally-conscious citizens for a better collective future.



Yogendra Anand/GT

CONCEPT OF ENVIRONMENTAL CITIZENSHIP

Introducing the concept of Environmental Citizenship (EC) in classrooms can help students understand the importance of living in harmony with nature. This develops within them a sense of responsibility towards environmental conservation.

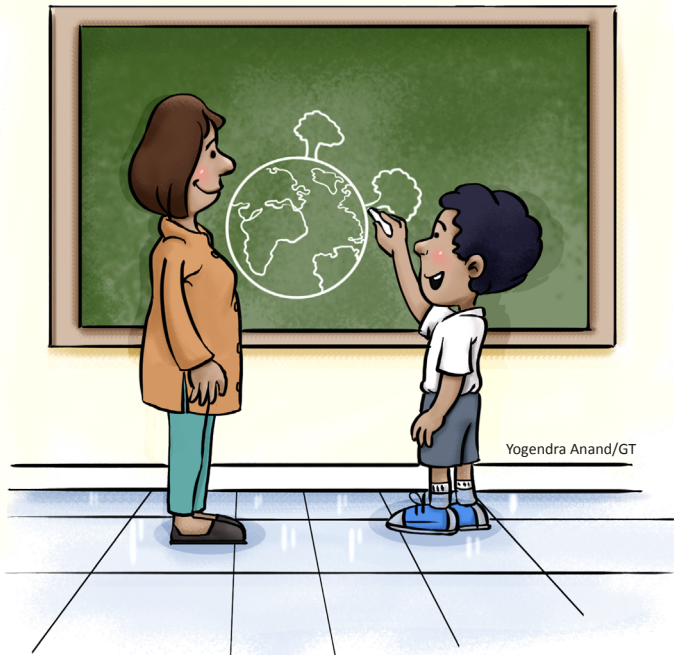
It is based on one's life choices in minimizing the ecological impact on earth.

Awareness among children through such concepts can influence their families towards responsible consumption and conservation of resources. For example, minimizing the usage of electricity, undertaking water conservation, and practising reuse and recycle. The ultimate goal of EC is to develop green citizens.

In light of this, our school has designed a program 'Go Green' to strengthen students' knowledge and skills through daily activities and lifestyles that can positively impact the environment.

TRAIN THE TEACHERS

Teachers need to be well-aware about the issue of climate change irrespective of the subjects they teach. Therefore, schools must have a well-designed and comprehensive program that can sensitize them about conservation issues. This can guide them and help them evolve the right teaching pedagogy. It is important for a teacher to know his/her role and responsibility in engaging students, through dialogue or active participation, for environmental preservation.



CREATING GREEN AMBASSADORS

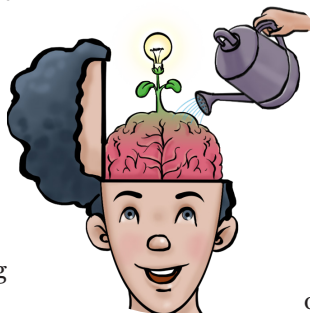
Following green practices, like nature walks and observation tours, are the best examples of experiential learning programs. These sensitize the students towards actual ground realities. Beginning from their campus, students must be introduced to the flora and fauna in their school and be encouraged to conduct a biodiversity assessment in the area.

Conservation, biodiversity and wildlife experts can be invited to deliver talks in schools and sensitize the impressionable young minds. Students can also become role models for others by volunteering as 'Green Ambassadors' in schools. This would motivate them to adopt green lifestyles and eco-friendly practices, particularly, towards waste management.

USE OF TECHNOLOGY AND INNOVATION

As part of bringing about change, there are numerous activities related to climate change that can be carried out in schools. We need to inculcate knowledge, right set of skills, attitude, and values among students to help them make informed choices and decisions. Undertaking long term projects with a 'design thinking' approach in mind, will help them in identifying problems, ideating solutions, building prototypes, and adapting local methodologies.

For example, a group of students from our school created a product called



'E-Sanitarios.' This was made for collecting online deliveries at the doorsteps of customers following full safety norms. The students identified the problem emanating from rising numbers of return deliveries. These deliveries caused transportation and carbon footprint to increase excessively. Thus, they worked on a solution with the help of technology.

The most important aim of our education is to build capacities of young minds. It is also to help them unleash their creativity and develop leadership skills, useful for our environment.

The author is the Green School Programme Coordinator and Science Educator at the Shiv Nadar School, Noida.



X-MAS SPECIAL

The Jingle of Santa

The man and the myth—will he endure in today's world of changing climate and environmental degradation?

Rajat Ghai

Dear friends,

As we approach the end of 2021, it is time for all of us—especially you—to take a break. These past two years have been exhausting. There has been sadness all around. You have been forced to attend classes on your phones and computers.

We should not let our guards down but perhaps now we all can relax a bit. And at the right time too. For it is that time of the year again when a rotund, pot-bellied man visits you in the dead of the night and leaves behind gifts.

Yes. It is ho, ho, ho time when there is the delicious

chill of winter and the huddle of warm clothing beckons. It is a time when Santa Claus comes calling as the world celebrates the birth of Jesus Christ.

But have you ever wondered who Santa Claus really is? And why does he do what he does?

Santa is not a real person. Yes, sorry to break it to you but that is the truth. However, you can take heart when I say that he is based in part on people who did live... and also on some figures from mythology.

The Myth of Odin

The primary inspiration for Santa is somebody called Odin. For those of you who might have watched the Hollywood movie *Thor* in 2011, you may remember Sir Anthony Hopkins playing a character with this name. Odin (or Woden or Wotan) is the king of Gods in Germanic and Norse mythology like Lord Indra in Hindu mythology. (Psst: 'Norse' means relating to ancient Norway or Scandinavia.)



And just in case you don't know 'Scandinavia' also, it refers to Norway, Sweden, and Denmark.)

Odin is depicted with a long beard. In Norse myth, he leads the gods, until he is killed by the huge wolf, Fenrir. He was killed on the day of Ragnarok, which signifies the end of an epoch and the start of a new one. Renewal. Rebirth. It is something like the Hindu 'Pralay'.

So, how is the legend of Odin linked to Christmas? Well, as you know, Europe, like other areas, was also tribal once. There were a host of tribes in that continent. Among them were the Germanic peoples. They played a key role in the collapse of the Roman Empire. However, soon, they adopted the Empire's single biggest identity marker: the Christian faith.

Before they turned Christian, many Germanic tribes, especially the Norse of Scandinavia used to celebrate a so-called 'pagan' festival. Every year, around mid-winter, or the beginning of the winter solstice, the longest night of winter, the community used to congregate in their temples. Here, they brought grain, ale (a type of beer), and sacrificial animals. The animals were sacrificed in the name of Odin and their meat eaten along with ale. Prayers were offered for peace and a good harvest as well.

Europe and Scandinavia's Christianisation was a long process. In many areas, non-Christian, pagan customs persisted for a long time even after people became Christian. In many areas, pagan customs were, in fact, re-branded as Christian ones to appeal to converts.

And so, my friends, the pagan festival of Yule came to be celebrated as Christmas. And the god worshipped in Yule, Odin, became the first prototype for Santa Claus.

However, the story does not end with Odin.

The Legend of Sinterklaas

There was a second inspiration for Santa: Saint Nicholas, the Greek Christian bishop of Myra in what is now modern-day Turkey.

Saint Nicholas was well known for his kindness towards all, especially children. According to legend, he left gifts for children in secret. Sounds familiar?

Saint Nicholas soon evolved into a legendary figure in various European countries. In England, for instance, he was Father Christmas. And in the Netherlands, he was Sinterklaas.

The Dutch established the colony of New Amsterdam in 1624 AD. It was part of the larger colony of New Netherland on the eastern seaboard of North America. Forty years later, in



Cover Story

1664, the English took New Amsterdam as well as New Netherland and renamed it New York.

Dutch settlers had brought their culture to New Netherland, including the legend of Sinterklaas or Saint Nicholas. In later years, it was mostly forgotten. Till 1812.

Last Few Updates

It was in 1812 when Washington Irving, the author of *Rip Van Winkle* and *The Legend of Sleepy Hollow*, published his book *A History of New York*.

Irving's work rekindled interest in Sinterklaas, at the same time giving it a more Anglo-American character. Another person who moulded the modern image of Santa Claus was political cartoonist Thomas Nast.

In the years since, more and more nuggets were added and the figure of Santa Claus was fleshed out and reinforced every year through popular media. And since the United States has been the dominant power in the world for most of the 20th century, we all now look forward eagerly to Santa coming every year down the chimney.

But the Santa story holds other lessons for all of us too, my friends.

The Santa Saga

Have you noticed the landscape that Santa moves in? There is pristine, almost spotless snow everywhere. There are reindeer-drawn sleighs. The sky, where depicted, is clear blue or filled with twinkling stars.

But what is the reality that stares us in the face? Since the Industrial Revolution began in 1750, humanity has been digging its own grave. In our insatiable quest for 'progress'

and 'development', we have cut down forests, wiped out wildlife, and poisoned our land, rivers and oceans with chemicals and plastic. Climate change has followed inexorably. The snow which Santa treads is disappearing as glaciers melt; in many places, we witness a layer of black soot on the snow—a result of our incessant burning of fossil fuels.

Today, deadly hurricanes, cyclones, and typhoons occur in all parts of the world with increasing frequency. There is acid rain. There is smog and haze. There is polluted water. There are long summers and short winters. If this situation continues, what will happen to the Santa story, among other things?

For one, there will be no snow and ice at the time when he comes visiting us. There will be no cold. The clear skies will be replaced by



Yogendra Anand/GT

a smoggy, dirty grey one. There might also be no reindeer left, especially Rudolph!

I take full responsibility for all this. Had my generation and the generations past been a little more considerate and careful, things would not have come to such a pass.

I don't know whether there is still time left. But what I do know is that we can keep trying. We can reduce our greed. We can stop polluting

our air, water, and land—so that our children do not have to lose out on one of the most endearing fantasies and imageries of their beautiful lives: Santa in a snow-bound landscape.

The author is Senior Assistant Editor, Down To Earth (Web) in the Centre for Science and Environment.



Yogendra Anand/GT

Climate Change Takes a Toll of Reindeer

In the winter of 2013-14, over 60,000 reindeer died in Russia. Norway also saw hundreds of reindeer deaths in the winter of 2018-19. These deaths have been all attributed to starvation, triggered by climate change and other causes, such as deforestation.

What is happening is that winters

are increasingly becoming warmer in the Arctic due to climate change. The higher temperatures cause the snow to melt and 're-freeze' as ice sheets, which tend to cover the lichen—the algae-fungus growth that is the main winter food of reindeer. The reindeer cannot dig through the ice sheets to reach the lichen, and end up starving to death.



Swati Sood

Autobiography of a Page

The story of a paper sheet in its own words and on its own self

I see you grow, day by day, year by year. I am your constant companion from the time you scribbled ABC to the time you solved the most complicated high-school problems. I am the one to whom you disclosed every secret and remained assured that they won't get spoken to anyone else. I am a witness to your countless emotions—love, sadness, anger, and joy... Can you guess who I am?

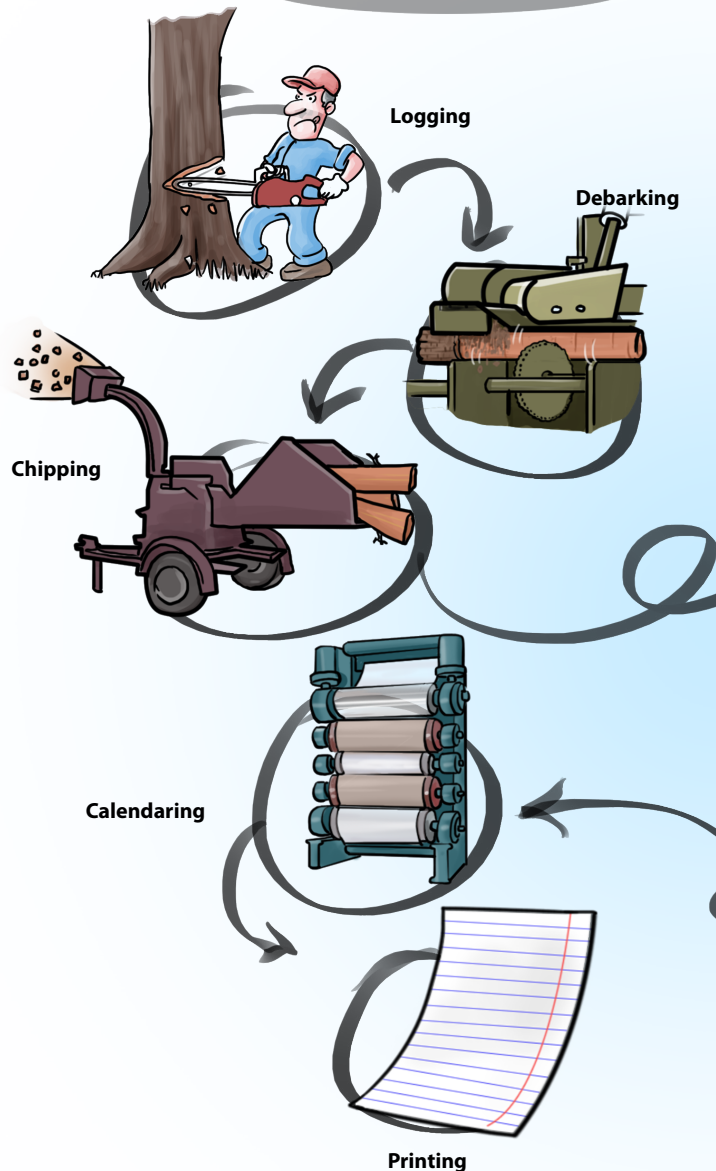
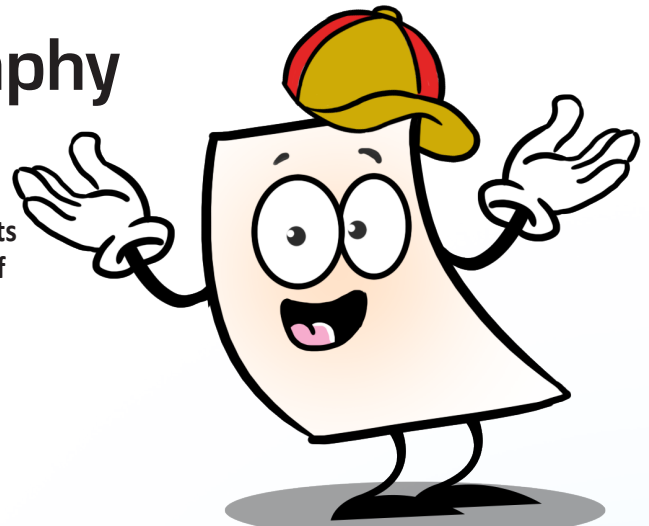
I am your sweet and simple notebook page, my friends, and here's my story!

My life begins from large green forest farms, where there are hardwood and softwood trees. They are especially reared for raising me and my cousins. These trees undergo an interesting makeover which is carried out in several stages.

At first, they are cut into logs. That's because handling regular wood trunks is much easier than dealing with scattered leafy branches. After logging, the woods are sent to paper mills where their barks are removed. This is called debarking. Then, these de-barked logs are sent to chipping units, where they are cut into small pieces called chips. Following chipping, the pulping begins.

Just like how our mothers bathed us when we were young, the baby wooden chips are also given a nice bath in the early stages of paper-making. Basically, they are put into large pressure cookers called digesters. Then, they are mixed with water and pulping chemicals, like sodium hydroxide, and boiled upto 170°C. This process softens the wooden chips and turns them into a mixture called pulp. This pulp is the actual raw material for making paper.

After pulping, bleaching chemicals, such as hydrogen peroxide, are added for whitening. That's how we, the pages, become clean and bright for you to write upon! But in case someone wants colourful pages in their notebooks, then different colours are added to



the pulp. Red bleach for red pages and so on and so forth...

Then, the pulp is again mixed with some water and passed through a fine-mesh screen. That's when the first impression of our paper body is formed but it is weak. To make us healthier and stronger, the extra water from the pulp is removed by pressing it.

After the pressing stage, my makers decide what shape they want to keep me in. That's when they put me into molds of different shapes. So, the next time you see pages of different colours and sizes, remember that they are all my friends, who may look different but are made the same way.

But we aren't ready as yet. We are put on a diet to make us slim and trim. So, just as your mother nudges you to do exercise when you start gaining fat, my folks and I are slid down large rolling machines when our pulp makes us too chubby. These rolls squeeze us and make us lean and thin within minutes. Hehe...

Technically speaking, after the pulping and pressing stages, the paper pulp is passed through hot rotating cylinders. Whatever little water is left behind in our pulp, gets evaporated at this time. This procedure makes our paper body even stronger.

After this drying stage, we are passed through a calendaring machine. Psst! This machine has got nothing to do with your New Year's calendar. It simply smoothens the high and low surfaces of our paper thin body. And finally, a smooth, slim paper page is ready for you!

But wait a minute. My friends and I won't be available for you for too long. That's because you guys are chopping off trees too fast. In fact, trees are not just important to make paper but are indispensable for curbing global warming.

But am glad that you people brainstormed upon some alternatives of wood, like agricultural residues. These residues are the wastes remaining on farm fields after the crops are harvested in a farming season. Example, rice straw and wheat straw. Normally, these residues are burnt, causing a lot of pollution, but now they are being used for paper-making. So, that's a good way you found for waste utilisation. Congrats!

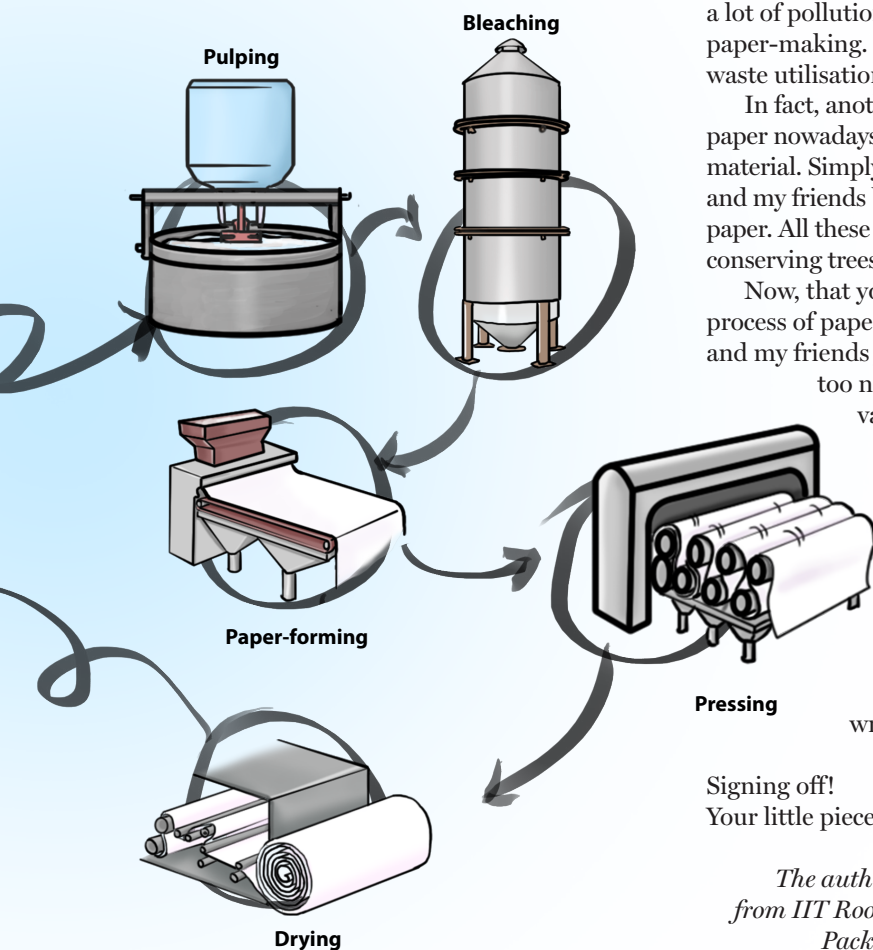
In fact, another way in which you guys produce paper nowadays is by using waste paper as a raw material. Simply speaking, this is recycling of paper and my friends born in this way are called recycled paper. All these new methods have helped in conserving trees. So, thanks to you again.

Now, that you've learnt about the effort-taking process of papermaking, I am sure you'll use me and my friends judiciously. But some of you are too naughty and don't appreciate my value. You tear me, fold me into aeroplanes and boats, and litter me everywhere. I feel very sad when you screw me into balls and reduce me to such a helpless plight.

But as times are evolving, I am happy to see digitisation all around and I hope that you'll always cherish the charm of writing on a paper page like me.

Signing off!
Your little piece of paper.

The author holds a PhD in paper technology from IIT Roorkee and is currently working with Packaging Technology & Research LLC.





Avantika Goswami

COP26: What is it all about?

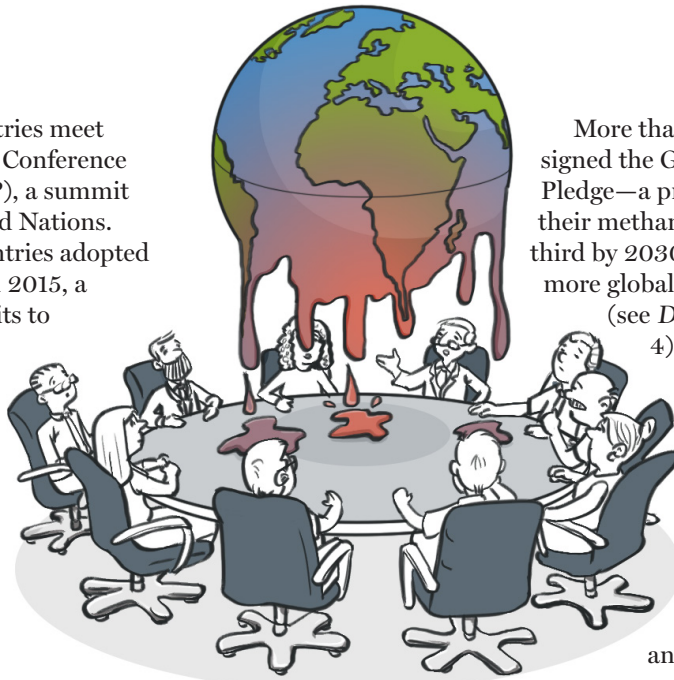
An explainer on the achievements and limitations of the 2021 United Nations Climate Change Conference held last month in Glasgow, UK

About 200 countries meet annually at the Conference of Parties (COP), a summit organised by the United Nations. Among these, 196 countries adopted the Paris Agreement in 2015, a global pact that commits to reduce greenhouse gas (GHG) emissions.

GHGs are emitted when we burn coal to produce electricity, burn oil to run cars, or cut down forests. These GHGs heat our planet. A safe temperature rise for our planet is 1.5 degrees Celsius above the Earth's average temperature in the late 1800s, also known as the pre-industrial period. If the Earth gets warmed above this limit, then we will see extreme weather events like severe heat waves, frequent cyclones, etc.; and eventually, loss of crops, homes, and lives. So far, the Earth has already warmed about 1.1 degrees Celsius above the pre-industrial levels.

Meetings like COP are an important forum to put pressure on countries, especially the wealthy and high polluters, to resolve this problem.

The 26th meeting of COP, called COP26, took place in Glasgow in October-November this year. A few good things happened: 105 countries committed to stop cutting forests by 2030.



Yogendra Anand/GT

More than 100 countries signed the Global Methane Pledge—a promise to reduce their methane emissions by one-third by 2030. Methane causes more global warming than CO₂ (see *Digits Speak* on page 4). Rich countries promised to double the money they provide to poorer countries for climate adaptation. Adaptation is the process of building your cities and villages in such a manner that they are able to bear the worsening climate.

On many other issues, COP26 failed. Rich countries produced most of the CO₂ that is in the atmosphere from 1900 onwards. This CO₂ stays in the air for almost 100 years and keeps warming the planet. This warmth is causing the climate to change which is worst affecting the poor countries. Many islands, for example, are already sinking due to sea level rise and their people need money to find or build new homes. They are suffering from global warming—a problem they didn't even cause.

Hence, the poor countries are demanding money from the rich to be able to switch to greener resources. But this money has fallen short of the amount promised to them—\$100 billion annually. In fact, the rich did not even commit any money for the damages caused to poorer nations even though a group of countries called the G77, representing almost 6 billion people on Earth, demanded it.

A lot of work is yet to be done to solve the climate crisis and it will be continued next year at COP27 in Egypt.

The author is Deputy Programme Manager, Climate Change Programme in the Centre for Science and Environment, New Delhi.





Gargi Mishra

CALL ME HU-PU!

Aimed to amaze unfazed—
the Common Hoopoe



Its crown extends with a fineness and style as some royal aristocratic headgear. But the cinnamon-coloured plumage induces earthiness to its attitude. As it humbly blends into the woods, its black-white stripes flash a regal reminder. And as it walks thoughtfully on the ground, 'hoopoe' is what we admire.

The 'hu-pu' or 'hu-po,' as it is pronounced, is named exactly after the calls of this bird. It belongs to the family 'Upupidae' and species *Upupa epops*. Popular as Common Hoopoe or

"a little zebra in our park!" That's how my seven-year-old daughter summarized it years ago, little knowing that this birdy will pose as her first on-camera supermodel.

With their long and slender beak, hoopoes probe and pick their food. Foraging alone, as if commanded to 'earn your own food,' they deftly march through open fields and feed on insects, small reptiles, and frogs. Plant matter, like seeds and berries, also comprise their diet.

Instead of weaving a typical twig nest, this stately avian builds mansions on bare and lightly vegetated areas. They love to live near trees, cliffs, walls, or abandoned burrows, where both the husband and wife aggressively guard their abodes. The gentleman doesn't hesitate to discard all his chivalry if the house is under danger and through his fiery bill can stab or blind any intruder.

The incubating and brooding lady also deploys a defense mechanism to save her nest and nestlings. Her uropygial glands produce a very foul liquid, which smells like rotting meat. This gland, present in a majority of birds, is commonly called the preen or oil gland. The mother hoopoe rubs this stinking fluid, which otherwise is an antibacterial agent, onto her brood to ward off any attackers or parasites. The hoopoe chicks too spray their droppings, make snake-like hissing sounds, and use their bill and wings to fight invaders.

Hoopoes are most interesting when observed sun bathing and sand bathing. Particularly, when under sun, they take a peculiar position—head tilted backwards, and wings and tail spread above the ground. And if you think they're dead, these hopeful hoopoes can surprise you any moment!

The author is an amateur ornithologist and closely follows the avian world.



PHOTOS: ATHIYA MAHAPATRA

Eurasian Hoopoe, this resident bird of India, seasonally migrates across the subcontinent. During monsoon, for example, it flies from Western Ghats to regions downhill.

Hoopoe's crown adds glamour to its distinctive features. Its fawn brown body conceals it against the surrounding soil, where it strides briskly with its short and slender legs. The prominent black and white bands on its wings and tail look like

Near and Dear



SECRETS OF THE STUBBLE

Ritika Bohra/GT

Stubble burning is the large-scale burning of crop residues from the rice-wheat systems of Punjab, Haryana, and western Uttar Pradesh. There has not been, thus far, a definite answer regarding its contribution to Delhi's air pollution. However, it is certainly a substantial problem, if not the main cause of pollution during Delhi's winters. In fact, it is an episodic issue and significantly adds to pollution levels during early October to mid-November each year, which is the crop-burning season.