

## Soil-Greatest Carbon Sink



Today had been an exceptionally busy day for Som, the head of animal resources in the Amazon Forest. Som, an Ostrich, had been tirelessly arranging a last-minute meeting called by Bon, the fox, who was democratically elected as the forest's king.

Nobody knew the agenda, but top scientists, environmentalists, activists, ministers, politicians, and influencers were summoned. Som had to organize food and accommodation for all of them, and she had a list of food and hotel preferences for everyone except one participant: Chatur, the elephant, who is the lead scientist at the Amazon forest's geological academy.



Chatur, it turned out, wanted "Negan" food. Som found herself scratching her head, wondering what "natural vegan" (Negan) food was and where she could find it. Natural vegan food, as Chatur explained, contained no animal products, and came from sources other than human farms. Som scrambled to find a supplier for Negan food.

As the invitees began to arrive, Som worriedly checked them in while anxiously waiting for Chatur. Finally, Chatur showed up, and Som mentioned her struggle to find Negan food. "I brought my own food and water," Chatur said, revealing a cloth bag with his packed lunch. Som breathed a sigh of relief.



Once everyone was seated and the king arrived, the forest choir sang the forest anthem, "Together we live, together we strive, together we eat of the forest, together we fight..."

Bon, the Fox, began addressing the gathering. "Thank you all for coming on such short notice to this COP28 climate conference. A recent environmental and climate report has sounded alarm bells, demanding immediate action. The report underscores the grim future facing the Amazon forest due to human activities both within and around it, including reduced forest cover, increased temperatures, decreased rainfall, and more frequent droughts and prolonged heatwaves."



"We must act now to protect our forest and, in turn, the world. By the end of this workshop, I expect practical solutions that can be implemented promptly to avert the impending climate catastrophe and ensure a sustainable future for generations to come."

Som stepped onto the stage and added, "Thank you, Mr. President. All participants will now take a short break for tea and snacks. When you return, you will be divided into groups to brainstorm ideas to address these issues."



The participants were divided into ten groups, with Chatur leading a group of five members, including Laaz the lizard, an environmentalist, Lin the lion, a politician from the opposition party, Sod the snake, a religious leader, and Bret the teen bear, a student climate activist.

Chatur's group was guided into a private enclosure with a large rectangular table. Chatur, as the group's chairman, took a seat at the head of the table, with Laaz and Bret on the left and Lin and Sod on the right.

Before Chatur could speak, Bret shouted, "Climate action now!" Laaz quickly calmed her down, saying, "Not here."



Lin the lion chimed in, "The current government should resign. They haven't done anything for the climate in the last two years."

"People have turned away from our animal gods, causing these catastrophes," added Sod.

Chatur interrupted, "This isn't the time for personal opinions. We need practical solutions to combat climate change. If you have any suggestions, please share them now," he said, motioning to Bret to start.

"We need to reduce our carbon paw print. The government needs to take immediate climate action!" Bret exclaimed.



"That's why we're here, but do you have any specific solutions in mind?" Chatur inquired.

"We demand climate justice and will call for a forestwide action starting tomorrow," Bret declared.

Chatur saw little value in Bret's demands and moved on to Laaz. "Do you have any proposals?" he asked.

Laaz, the laid-back lizard, suggested, "We should ban all transportation, and the government should provide food." Laaz preferred to spend his days sleeping without worrying about food.

Next, Chatur turned to Lin, the lion. "What are your proposals?"

"The current government should resign immediately to combat climate change. Their 'ethical hunting' policy has contributed to climate change by increasing herbivore populations, leading to deforestation. The ethical hunting law should be repealed immediately," Lin proposed.

Sod, the snake, spoke next. "We are being punished for losing faith in our gods. The youth no longer come to our places of worship, running after worldly pleasures, and ignoring the gods. Climate change is a result of the gods' anger. We must appease them to cool the atmosphere," he suggested.

Chatur concluded, "I've noted down all your proposals. I will submit them to the central committee, which will select the ideas to pursue."

Chatur's proposal for addressing climate change involved capturing carbon dioxide from the atmosphere and storing it deep within the earth using a device powered by solar panels. This environmentally friendly solution wouldn't release additional carbon dioxide into the atmosphere.

Lin, the lion, offered his support, saying, "Why capture carbon when we can achieve more by getting a weak government to resign and lifting the hunting ban? Nonetheless, your proposal is promising, and I'll fund it if I become king."

Chatur submitted all the proposals from his committee members to the central task force. After about two days, he received a letter from the king's office, indicating that his proposal had been selected. He needed to submit a detailed plan with timelines and a budget within two weeks before the end of COP28 climate summit.



Chatur was thrilled and worked day and night on his plan. One day, his daughter, Maha-Chaturi, approached him. "Papa, why are you working even at night?" she asked.

"I'm working on a machine to capture carbon from the atmosphere," said Chatur.

"What are you going to do with that captured carbon?" asked Maha-Chaturi.

"The machine will pump the carbon into the Earth's core and store it there," Chatur explained.

"Why do we need to do that?" Maha-Chaturi inquired.



"Excess carbon dioxide in the atmosphere acts like a blanket, trapping sunlight and causing temperatures to rise," Chatur explained.

"You mean the greenhouse effect?" asked Maha-Chaturi.

"Yes, exactly. This device, powered by solar energy, will capture carbon and pump it into the earth's core. Due to increased economic activity, carbon dioxide has increased significantly," added Chatur.

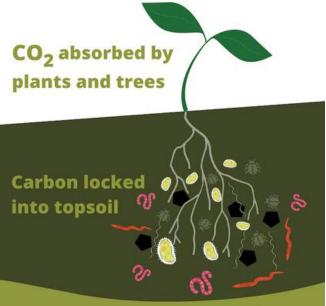


"Isn't that what trees have been doing for millions of years?" Maha-Chaturi asked.

"I read in science class that one acre of forest can absorb 5-40 tons of carbon dioxide. Why can't we plant more trees? Trees can cost-effectively capture carbon from the atmosphere and store it in the earth," suggested Maha-Chaturi.

Chatur did not think about trees. Leaves absorb sunlight, combined with water from the tree's roots and carbon dioxide from the air, undergoes a chemical reaction to produce glucose and oxygen.





Trees store carbon in their root systems, which can extend deep into the ground. Some of this carbon is stored in the soil. This stored carbon remains out of the atmosphere, helping to mitigate the greenhouse effect and reduce the overall concentration of CO2 in the air.

"We did a class project on how tree-based agriculture can fight climate change and help farmers increase their income," added Maha-Chaturi.



Maha-Chaturi showed the project to her dad who was very impressed.

"Could you and your team present it to the king at COP28 summit?" Chatur asked.

"Of course, Dad, we'd be happy to," Maha-Chaturi replied.

Maha-Chaturi and her friends presented their project and proposal to the delegates of the COP28 climate summit and the King. The king and his team were impressed and formed a committee to promote and incentivize tree-based agriculture and increase forest cover.



