

Chapter 1

Humpty Dumpty



There once was a fine fellow, who fancied himself quite a dandy. He usually dressed in a tuxedo and bowtie, and he could often be seen sitting on a stone wall watching the world go by. One day a young lady by the name of Greta stopped to talk to him. She said, "You seem like a perfect metaphor for Earth." He asked her what she meant, and she told him that his eggshell, like Earth's atmosphere, was paper-thin and very fragile. "Go on," Humpty said. She continued, saying that he was also precariously

sitting on the edge of a stone wall just like the Earth was teetering on the brink of an abyss – a climate change abyss. “Interesting,” said Humpty, “but I feel completely safe sitting on this wall and I’m too busy watching the world go by to worry about climate change.” Greta gave him a stern look, told him he would be sorry for being so cavalier, and walked away.

The next day it was pretty hot, so Humpty wore a t-shirt and shorts. An old man, out for a stroll, approached him and asked why he was sitting on the wall. Humpty said, “To watch the world go by.” The old man, Al, told him there might be better ways to spend his time; for one thing he could be spreading the word about the inconvenient truth of global warming. Humpty wiped the sweat from his brow and told Al he should mind his own business. Al sighed, and then said, “Well be careful, if you fall off the wall you’ll shatter into a thousand pieces and all the King’s horses and all the King’s men will never be able to put you back together again.”

This went in one ear and out the other, and Humpty was glad when Al left him to his peace and quiet. But it wasn’t as quiet as it could be; there was a canary singing in the tree behind him. Its singing was pleasant for a while, but as time went on the canary’s song grew shriller. This annoyed Humpty so much that he was thinking of going home. But then the canary stopped singing and fell out of the tree. “Stupid canary,” thought Humpty. “It sang itself to death.”

Indeed it had, and now Humpty could sit to his heart’s content in relative silence and perfect indifference. But the day was growing hotter, and as it grew hotter Humpty became drowsy. Twice he caught himself falling asleep and recovered just in time to maintain his balance on the wall. Had he been wiser he would have gone home for a nap or followed Al’s advice to go forth and spread the word about climate change. Unfortunately, he didn’t. The third time his eyelids became heavy he could not stay awake. He fell into a slumber, began to dream about being able to fly and suddenly awoke to find himself falling. When he was found later he was unrecognizable. Humpty, as Al had warned, had broken into a thousand pieces.

Chapter 2

Tropical Rainforests

It is estimated that 10-15% of our CO₂ emissions are due to deforestation in the tropics. This is not surprising since deforestation rates in many equatorial countries are high and unsustainable; and that studies show the amount of above-ground carbon in tropical rainforests is around 250 tons/hectare. Therefore, in order to address climate change rigorously we need to curb deforestation in the tropics. There is also a need to restore lost forests through reforestation projects using a mix of native tree species. Between 5-8 tons of CO₂/year (for the first 20 years of growth) is captured by these trees per hectare – equal to about half the typical carbon footprint of a North American.

So protecting and restoring tropical forests is an important part of our effort to mitigate climate change. But there are other compelling reasons for saving rainforests. For one thing, rainforests protect watersheds; absorbing excess water in the rainy season and releasing it downstream in the dry season. The rainforest also provides shelter, sustenance and medicinal plants for indigenous people who have lived in harmony with their environment for generations: In the Amazon basin alone there are approximately 3100 indigenous communities. Lastly, rainforests are storehouses of biodiversity and are inhabited by a star-studded cast of characters. In Central and South America, along rivers and in wetlands, dwell strange looking tapirs – half hippo and half elephant in appearance – and thirty foot anacondas. On the forest floor jaguars stalk clumsy looking anteaters, armadillos, peccaries and raccoon-like coatimundis. In the tree tops there are monkeys who have prehensile tails, squirrel-sized tamarins, marmosets, sloths, petal faced bats, vociferous macaws and margay – an arboreal feline.

Not to be outdone, the Congo forest of Central Africa can boast of giant forest hogs, aardvarks, forest elephants, leopards, bonobo chimps, lowland gorillas, African gray parrots and water buffalo; and in southeast Asia/Indonesia archipelago, nocturnal tarsiers, the slow loris (similar to sloths), reticulated pythons, tigers, rhinos, orangutan and the long-armed gibbon are to be found.

I could go on and on, listing countless creatures great and small; then naming plant after plant – orchids, bromeliads, heliconias, strangler figs, lianas and palm trees. I could also list some of the 1.5-5 million species of fungi in the rainforest – doing the important work of breaking down organic matter so the resulting nutrients become available to forest vegetation. But instead I will simply present some biodiversity facts:

Biodiversity Facts

-A Smithsonian scientist estimated that there may be between 20 to 30 million different kinds of insects in the rainforest.

-There are nearly 1,000 species of fig trees in the tropics and there are nearly 1,000 species of tiny wasps that pollinate them – a species for each species of fig. The complex web of symbiotic relationships is one reason there is so much biodiversity in the rainforest.

-Ecuador, which is the size of Colorado, has 1,300 species of birds. That is twice as many as all Canada and US combined. Five hundred of those bird species are endemic to Ecuador – found no place else in the world.

-The Amazon has more species of fish than the entire Atlantic Ocean, and if you paddle 100 miles out into the ocean from the mouth of the Amazon the water is still fresh and drinkable.

-Bats are the most diverse mammals in the rainforest. In Indonesia there are 225 species. In all of North America there are only 45 bat species.

-In Costa Rica 1,234 different species of butterflies were identified within two square miles.

-The best count is that Brazil has over 55,000 different kinds of flowering plants ranging from passion flowers to mahogany trees.

-Dr. Terry Erwin counted 163 different beetle species in one tree in Panama. From his study he estimated that there are eight million species of beetles.

-One survey has counted at least 300 different species of trees in one hectare (2.5 acres)! By comparison, a hectare of temperate forest in northern latitudes will usually contain approximately 20 tree species.

-Forty-three ant species were found in one tree in Peru. That's more than all the ant species found in the British Isles.

