

From *The New York Times*

Upsetting the Balance

By Thomas L. Friedman

April 11, 2007

Surely of all God's creations, none is more beautiful than the sunrise on the Masai Mara grassland, Kenya's spectacular nature reserve and a backdrop for the movie "Out of Africa." The sun's ascent here is like a curtain going up on one of Mother Nature's richest ecosystems. Through the day you can be greeted by a bull elephant in hot pursuit of a cow, serenaded by tropical boubou birds, intimidated by two lionesses devouring a warthog, amused by the cattle egrets riding on the backs of African buffalos and impressed by how each small cluster of topi antelope "assigns" one topi to stand on a small hill and keep watch for predators while the others graze. Everything seems in perfect balance.

Except behind the curtain, deforestation, the poaching of wildlife and now climate change present a trio of threats to the Mara, which have Kenyans, and all those concerned about biodiversity, worried.

Over the last 10 years, "the weather has changed," explained our Masai naturalist, Daniel Memusi. "All of a sudden it is becoming unpredictable. April has always been a rainy month -- every afternoon and all night. You expect rain, but no rain." If the few scattered rains this April don't become more intense, he added, the farmers who just planted their crops will have serious problems. "This should be a very wet month for anyone who knows the Mara, but instead the rains came in January and February," he said.

One should never extrapolate about climate change from any single ecosystem or brief period. But as *The Times's* environmental reporter Andrew C. Revkin recently noted, scientists say it's increasingly clear "that worldwide precipitation is shifting away from the equator and toward the poles."

"Rainfall has changed dramatically in the last 30 years -- it is less predictable now," said Julius Kipng'etich, director of the Kenya Wildlife Service, which manages Kenya's Noah's ark of endangered species. If climate changes bring more severe droughts and floods, and the animal migrations are disrupted, "the brand of the Mara dies," added Mr. Kipng'etich, referring to Kenya's "Lion King" grassland. That would really

hurt Kenya's economy. "When every Kenyan meets a wild animal, they should bow and say thank you."

Kenya also has to worry about deforestation and poaching, although poaching is now under better control. Kenya's forests have been reduced from 10 percent of the country's landmass at the time of its independence in 1963 to 2 percent today, while in the same period its elephant population went from 170,000 to 30,000 and its rhino population from 20,000 to around 500. "When you see a rhino today, you are very lucky," said Mr. Kipng'etich. "Your children or grandchildren may never see one."

Climate change could worsen this. The U.N.'s Intergovernmental Panel on Climate Change just concluded that two-thirds of the atmospheric buildup of heat-trapping carbon dioxide has come -- in roughly equal parts -- from the U.S. and Western Europe. These countries have the resources to deal with climate change, and may even benefit from some warming. Africa accounts for less than 3 percent of global CO2 emissions since 1900, the report noted, yet its 840 million people could suffer enormously from global-warming-induced droughts and floods and have the fewest resources to deal with them.

"We have a message here to tell these countries, that you are causing aggression to us by causing global warming," President Yoweri Museveni of Uganda told an African Union summit in Ethiopia last February. "Alaska will probably become good for agriculture, Siberia will probably become good for agriculture, but where does that leave Africa?"

A study by Oxfam, entitled "Africa -- Up in Smoke," noted that in line with climate models, droughts in northwest Kenya appear to be becoming more frequent. It profiled the impact on the nomadic pastoralists of Kenya's northwest Turkana region, who graze cattle, camels and goats. They've always known droughts, but because they are now more frequent, families and animals have less chance to recover.

The Turkana people, said Oxfam, call this more persistent drought " 'Atiaktiak ng'awiyei' or 'the one that divided homes' because so many families split up to survive, migrating in all directions."

It really is wrong that those least responsible for climate change should pay the most. "My recommendation is that the biggest polluter pays,"

said Mr. Kipng'etich. "We are one planet, one system." He has a point. He deserves an answer.