The forests not seen on picture post-cards: looking beyond the tropical belt

When it comes to ‘tropical forests,’ most studies, campaigns and policies focus on those located along the equator: the Amazon rainforest, the Congo basin and the south or southeast Asian forests. And with reason. Tropical rainforests are being increasingly fragmented, plundered and destroyed under the mantra of a so-called ‘economic growth’ model (see WRM Bulletin 188). The consequences have been devastating and world-shattering, since these forests contain a large part of global biological diversity, participate in vital cycles – including the air and water cycles – and coexist with a multiplicity of peoples and cultures.

However, there exist a wide variety of forests, often ignored, which are plundered and where deforestation is also having devastating consequences.Climate, soil, altitude and humidity, among many other variables, create different biodiversities and forests, which at the same time play an essential role for the populations who depend on them. We find, for example, forests with trees with needle-like leaves; with open vegetation of arid regions; with woody scrubland; with clouds at the level of the vegetation; with swampy terrains; etc. Many of these ‘other’ forests are not often pictured on post-cards. Yet, they are of vital importance for biodiversity and local economies, and in many cases, they are even more threatened and have even higher deforestation rates than the tropical rainforests.

Brazil’s most threatened forests

Brazil’s Amazon rainforests definitely captivate media headlines worldwide. But in fact, the Brazilian *cerrado* (savannah) and *caatinga* (semi-arid chaparral) are among the country’s most threatened areas. In the *cerrado*, the expansion of agribusiness with its monocultures of soya, sugarcane and eucalyptus and of cattle ranching with extensive grazing has pushed deforestation rates above those of the Amazon. Intensive use of toxic agricultural chemicals and heavy machinery is involved. Agriculture and livestock are the direct cause of the destruction of over 50% of the area of the *cerrado* in the last 35 years, as well as fragmenting habitats and causing the invasion of exotic species, extinction of biodiversity, soil erosion, pollution of water sources and fire regime changes (1). Mining activities are expanding in the region and are accelerating the disappearance of the *cerrado* (2). Above all, these industries have led to the displacement of countless traditional communities, including indigenous peoples and *campesinos* (peasants), and to the pollution of their territories.

Local populations who are resisting the advance of the agriculture and livestock industries are playing an immensely important role in the defence of the remaining areas of *cerrado* (see article in WRM Bulletin 195, and RedeCerrado). But land grabbing is happening fast. As Sergio Schlesinger of the Brazilian Forum of Non-Governmental Organizations stated, “Families living on family agriculture and forest management are being expelled. Pollution of water and of the soil is forcing people who live near the big plantations to move away.” (3)

With the focus on the Amazon, government policies have neglected the imperative need to stop the

destruction of the *cerrado* by limiting the spread of agribusiness there. The Brazilian Forest Code, for instance, requires only 35% of agricultural areas in the *cerrado* to be preserved as legally protected areas, while in the Amazon rainforests that percentage is 80%, although still insufficient. Worse still, policies tend to reward agribusiness companies that have a discourse on 'sustainability,' while small farmers are blamed as the main perpetrators of deforestation. "While large producers cause an enormous amount of deforestation with impunity, small farmers are made to pay for the slightest change in the environment. The law nowadays is heavily weighted against the small farmer, who cannot even fell a single tree," says Rosane Bastos of RedeCerrado (4). Moreover, approval of genetically modified soy and cotton crops has reduced production costs, acting as an incentive to expand agribusiness in the *cerrado*.

Trees in the desert? Namibia's dry forests

When it comes to the Namib Desert, one of the oldest and largest on the planet, forests do not immediately come to mind. But in addition to the vast gravel plains and sand dunes along the Namibian coast, the desert also has 'dry forests' or open savannah vegetation (5). These woodlands are home to unique flora and fauna and are important for the subsistence of local populations. The thorny !Nara plant, for instance, not only provides nutritious fruits and seeds for native peoples like the Topnaar, but also stabilizes the shifting sands of the dunes with its roots and stems.

Unfortunately, the desert coast also contains rich deposits of uranium; in 2012 Namibia was the fifth largest exporter of uranium in the world. At present, there are two mines in the country: Rössing Uranium, majority-owned by the Rio Tinto Group, which is the third largest open pit uranium mine in the world; and Langer Heinrich, belonging to Paladin Energy, an Australian company. Mining poses a major threat to the unique biodiversity of the desert's dry forests. It also has serious health effects on mine workers (6), and on local and indigenous communities, due to heavy pollution of water sources and soil, as well as radioactive dust and chemicals released into the air during uranium extraction and processing (7).

Namibia's uranium is extracted, milled, transported and exported as concentrated uranium oxide to nuclear plants in France, the U.K., the U.S. and Japan. Ironically, in these countries, the nuclear energy they produce is classified as 'green energy' and 'free of carbon emissions.'

Towards the North Pole: Canada's boreal forests

The gigantic infrastructure needed to extract tar sands (deposits of oil, sand and clay forming an asphalt-like substance called bitumen) in Alberta, Canada, has deforested and contaminated thousands of hectares of the boreal forests. Boreal forests are incredibly diverse, featuring mountain ranges, forested plains, bogs and peatlands, coniferous forests (comprising trees with needle-like leaves) and mixed forests, and millions of waterways. They are home to several indigenous peoples or 'First Nations' (8), including the Mikisew Cree, Athabasca Chipewyan, Fort McMurray and Fort McKay Cree, Beaver Lake Cree, Chipewyan Prairie, and the Métis communities, whose livelihoods are being threatened by the tar sands mining. Extraction and transport operations in this area have resulted in the world's second highest deforestation rate (9). Moreover, it has been reported that over five million gallons of waste water a year find their way into lakes, rivers and groundwater, seriously affecting not only flora and fauna but also the health of local communities and people dependent on waters downstream.

In addition to the impacts suffered at the extraction sites, devastation is increasing exponentially

elsewhere as infrastructure is being built over the length and breadth of North America to serve the gigantic export traffic and oil consumption. However, some planned oil and gas pipelines have met with fierce criticism and resistance from local populations and international campaigns. The Energy East Pipeline project is the largest proposed oil sands pipeline, and would pass through or close to the territories of 155 First Nations, as well as affecting the livelihood of hundreds of fisherfolk on the Atlantic coast (10). Its construction is being hotly debated.

Tar sands mining in Alberta is also in violation of Treaty 8, signed in 1899 between First Nations in Northern Alberta and Queen Victoria of England. The Treaty guarantees basic rights such as health care and education, as well as the right to pursue traditional ways of living, including hunting and harvesting. If the Canadian or Alberta state government does decide to reduce the amount of land used for these activities, it has a duty to consult with the affected First Nations. According to the treaty itself, this agreement will remain valid “as long as the sun shines, the grass grows and the rivers flow” (11). Transport infrastructure will also affect other territories not covered by this Treaty.

Using examples from three continents, this article has tried to emphasize the great diversity of forests and the importance of each of them. This diversity is so wide that the whole of its extent cannot be covered in one bulletin. The forests and the peoples who coexist with them keep vast knowledge that has made it possible for them to maintain, safeguard, use and value each other. Increasing encroachment by agribusiness, mining or the fossil fuel industry, guided by the dominant economic model, is creating an alarming situation in the forests. It is imperative to change this dominant model which threatens life on the planet. Let us remember that forests, with all their diversity, play a key role in supporting life. By listening to, respecting and learning from the thousands of communities that live in co-existence with forests, we shall be able to work towards the transformation that is so urgently needed.

(1) *A Conservação do cerrado brasileiro* [Conservation of the Brazilian *cerrado*], Carlos Klink & Ricardo Machado, www.equalisambiental.com.br/wp-content/uploads/2013/02/Cerrado_conservacao.pdf

(2) *O cerrado e suas atividades impactantes: Uma leitura sobre o garimpo, mineração e a agricultura mecanizada* [Activities impacting on the *cerrado*: An interpretation of mines, mining and mechanized agriculture], Paula Arruda & Lucía Vera, http://www.observatorium.ig.ufu.br/pdfs/3edicao/n7/2.pdf

(3) *Repórter Brasil, Ser “celeiro do Brasil” devasta o cerrado* [Being the “granary of Brazil” is devastating the *cerrado*], Iberê Thenório, http://reporterbrasil.org.br/2006/08/ser-celeiro-do-brasil-devasta-o-cerrado/

(4) Ibid.

(5) A Forest Research Strategy for Namibia (2011-2015), Ministry of Agriculture, Water and Forestry, www.mawf.gov.na/Documents/Forest%20Research%20Strategy.pdf

(6) Study on low level radiation of Rio Tinto’s Rössing Uranium mine workers, 2014,EJOLT & Earthlife Namibia, http://www.criirad.org/mines-uranium/namibie/riotinto-rossing-workers-EARTHLIFE-LARRI-EJOLT.pdf

(7) Namibia’s Rössing-Rio Tinto mine causes environmental and health problems, 2014, EJOLT &

Earthlife Namibia, http://www.ejolt.org/2014/05/namibias-rossing-rio-tinto-mine-causes-environmental-and-health-problems/

(8) Canada's First Nations are its indigenous peoples, not including the Inuit or Métis.

(9) Northern Rockies Rising Tide, http://northernrockiesrisingtide.wordpress.com/tar-sandkearl-module-faq/

(10) Oil Sands Truth, http://oilsandstruth.org/opposition-mounting-energy-east-export-pipeline-even-transcanada-files-official-application ; Indigenous Environmental Network's campaign against tar sands,http://www.ienearth.org/indigenous-resistance-kxl-tar-sands/

(11) Treaty 8, http://www.treaty8.ca/documents/Treaty8_1899.pdf