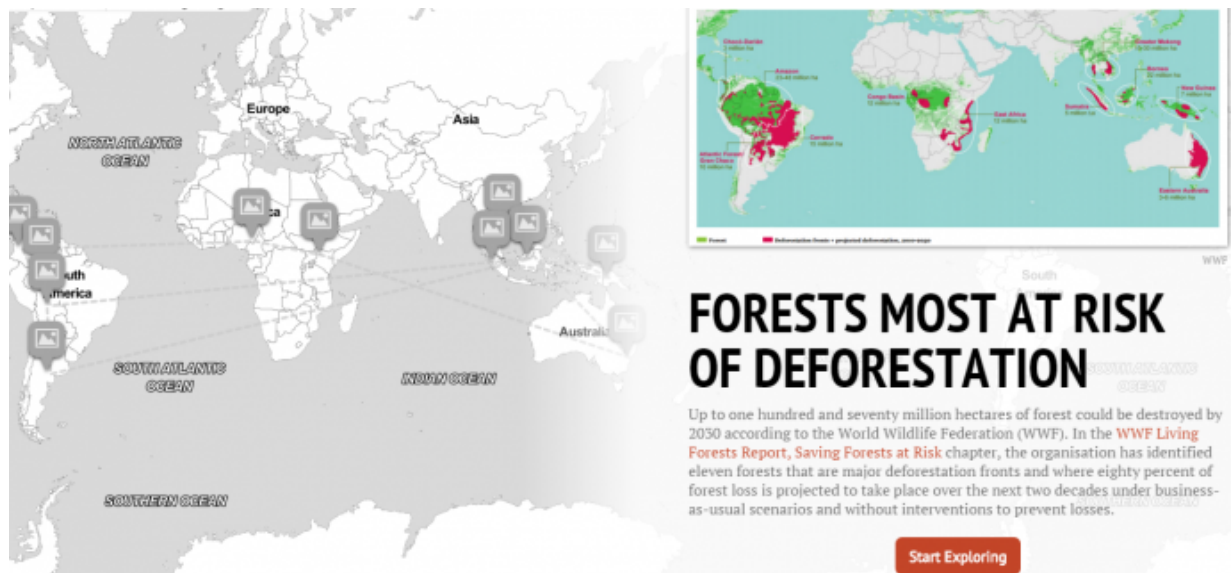


# Telling the story of the world's most at-risk forests

November 13 2015, by Jeff Atkins



Crowe's StoryMap where you can explore our most at-risk forests and the pressures they face.

The most recent chapter of the World Wildlife Foundation's Living Forests Report, [Chapter 5: Saving Forests at Risks](#), identifies 11 deforestation fronts where more than 80% of global deforestation between 2010 and 2030 is expected to occur. Business-as-usual scenarios project a loss of forest area of up to 170 million hectares. Alan Crowe, owner of Crowe's Sawmills, has built an interactive StoryMap, "Forests Most at Risk of Deforestation," that visually tells the story of each of

these 11 deforestation fronts, including background information about each forest and details about the rates of forest loss and unique pressures facing each forest.

The majority of deforestation fronts listed by WWF are in the tropics and sub-tropics and are forests of primary conservation concern because of their high levels of biodiversity and endemic species. Due to varying forces and pressures, these areas are in the crosshairs of habitat loss. The full extent and importance of forest biodiversity and forest ecosystem services are often not integrated into local or export markets. The WWF report notes,

"Forests are replaced by other land uses that generate higher short-term financial returns, or face gradual depletion through unsustainable harvesting, hunting, fires and other disturbances. Thus forest loss occurs in spite of the risks that declining forest ecosystem services pose to society."

Individual forest outcomes are determined by land-use decisions at a multitude of scales, from the local scale where the community and property owners self-determine property uses, to broader-scales where governments sculpt resource and economic policies that influence outcomes. Global markets—through investment, consumer demand, and prevailing market trends—also influence land-use decisions. This friction drives deforestation despite the acknowledgement that wide-spread loss of forests and forest ecosystem processes poses societal [risks](#). Crowe's map allows not only a spatial understanding of where these vulnerable forests are in the world, but also acquaints the reader with the individuality of each forest and the pressures that forest faces.











	 Livestock	 Large-scale agriculture	 Small-scale agriculture & colonization	 Unsustainable logging	 Pulp plantations	 Fires	 Charcoal and fuelwood	 Mining	 Infrastructure	 Hydroelectric power
Amazon	■	■	■	■		■		■	■	■
Atlantic Forest/ Gran Chaco	■	■		■	■	■	■	■	■	■
Borneo		■	■	■	■	■		■	■	■
Cerrado	■	■					■	■	■	■
Chocó-Darién	■	■	■	■				■	■	
Congo Basin	■	■	■	■			■	■	■	
East Africa	■	■	■	■		■	■	■	■	
Eastern Australia	■		■	■				■		
Greater Mekong		■	■	■	■		■		■	■
New Guinea		■	■	■	■	■				
Sumatra		■	■	■	■	■			■	

Table 2: Summary of main pressures on forests in different deforestation fronts

The most common pressures causing deforestation and severe forest degradation are: large and small-scale agriculture; unsustainable logging; mining; infrastructure projects; and increased fire incidence and intensity. New roads can have a small direct impact but a large indirect effect through opening up forests to settlers and agriculture. Poor forest management, destructive logging practices and unsustainable fuelwood collection degrade forests and often instigate an increasing spiral of degradation that eventually leads to deforestation (“death by a thousand cuts”). Table 2 gives a summary of these pressures.

- Primary cause of forest loss and/or severe degradation
- Important secondary cause of forest loss and/or severe degradation
- Less important cause of forest loss and/or severe degradation
- Not a cause of forest loss and/or severe degradation

Main pressures on forests in different deforestation fronts. (Table 2 from WWF Living Forests Report: Chapter 5)

For each of the 11 forests identified in the WWF report and in Crowe's map, agriculture (both large- and small-scale) and/or livestock grazing represent a primary driver of forest loss and/or severe degradation. For each forest, this story unfolds in a different way.

The Chocó-Darién, a 16.9 million ha forest along the Pacific coast of South America that extends from Ecuador through Colombia, faces a potential loss of 1.5 – 3 million ha of forest in the next 30 – 40 years. The Chocó-Darién is home to over 8,000 plant species and 600 bird species. While cattle ranching, mining, and road construction are significant contributors to forest loss in this region, it is estimated that

90% of deforestation within Ecuador and Colombia is caused by coca production. The coupling of armed conflict and narcotic production with population growth, poverty, and increasing land scarcity is creating further ecological pressure on this region.

Conversion of forest to palm oil plantations has contributed to a loss of 5.8 million ha of forest between 2003 and 2008 in Borneo. By 2030, business-as-usual scenarios predict an additional loss of 22 million ha of forest, reducing the island's forest cover to a scant 24%. The Cerrado high plateau of Brazil and Bolivia and the forests of Eastern Australia are facing pressure from livestock grazing, with projections of forest loss at 15 million ha and 3 – 6 million ha, respectively. East African forests, including those in Kenya, Malawi, Mozambique, Tanzania, Zambia, and Zimbabwe are projected to lose 12 million ha of forest by 2030. Forests in these countries are facing the combined pressure of expanding population, migrations, small-scale agriculture and livestock expansion, unsustainable logging, charcoal production, and uncontrolled fires.

The WWF report offers a framework for moving forward by providing measures that could prevent deforestation:

- Strengthened Protected Area Networks – Protected areas offer improved conservation of wildlife and ecosystem services than many alternative approaches to management and provide reservoirs of biodiversity and future possibilities for restoration efforts. However, protected areas that lack funding and support or are poorly governed, may not be able to withstand exploitative deforestation pressures. The Greater Mekong, Amazon, Congo Basin, and Coastal East Africa are examples of deforestation fronts facing protected area downgrading, downsizing, and degazettement (PADDD; [www.paddtracker.org](http://www.paddtracker.org)). Better understanding of the ecosystem services provided by forests,

from erosion control to water supply and nutrient cycling, could better inform land-use decisions and help educate to the need for protected areas.

- REDD+ – The United Nations Framework Convention on Climate Change's (UNFCCC) Reduced Emission from Deforestation and Forest Degradation (REDD+) program seeks to reduce greenhouse gas emissions from deforestation and forest degradation while also improving forest management and increasing carbon sequestration in developing countries. The expansion of REDD+ could offset threats at deforestation fronts.
- Deforestation-Free Supply Chains – Commitments by private sector actors to eliminate deforestation within the scope of their operations offers another measure to combat forest loss. The Consumer Goods Forum's zero net deforestation resolution is just one example.
- Forests Safeguards for Roads and Other Infrastructure – New infrastructure projects in remote areas result in an influx of people seeking jobs. Concomitant with this population influx, are associated additional pressures on forests, including settlement construction, roads, agriculture, hunting, livestock grazing, and fuelwood extraction, all resulting in additional [forest loss](#). Mediating the reduction in impacts of infrastructure development without compromising economic opportunities represents a unique and complex challenge.

Crowe's map could serve as useful tool to help globally inform and educate people about these areas and the scale of [forest](#) loss occurring and the ultimate results from continued, rampant [deforestation](#).

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