Nearly 1 million Rohingya refugees are living in camps in Bangladesh.

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Rohingya refugees and the environment

Violence in the Rakhine State of Myanmar has led to a humanitarian crisis as Rohingya people flee across the border to Bangladesh (*1*). With the rapid influx of nearly 700,000 arrivals between August 2017 and the beginning of 2018, the Bangladeshi city of Cox's Bazar is now under severe strain from a Rohingya population of almost 1 million, one of the largest concentrations of refugees in the world (*2*). The crisis seized global attention, and the international response was rapidly escalated to a Level 3 emergency (*3*).

In addition to the humanitarian challenges, the mass influx of Rohingya refugees has resulted in environmental degradation both within the refugee camps and in the surrounding areas (*2*). The expansion of existing campsites has led to more than 2000 ha of forest loss in the Cox's Bazar region (*4*). Expansion of the old Kutupalong camp blocked the only corridor used by the globally endangered Asian elephant as a migration route and trapped about 45 elephants in the western side of the camp (*5*). The latest Rohingya settlement has also amplified human-elephant conflict in the area, with 13 human casualties so far (*6*). The remaining elephant habitat is under severe pressure from uncontrolled fuelwood collection in the forest (*7*). The pressure on forests has caused tensions with local host communities, which rely on these forests for fuelwood, medicine, and food (*8*). The surrounding critical biodiversity areas, such as the Teknaf Wildlife Sanctuary, Himchari National Park, and Inani National Park, are also at risk (*2*). Soil erosion and landslides are already common in the area, affecting water resources, irrigation, and groundwater reserves (*9*). Local biodiversity, including marine resources, acoustic environment, and air quality, is being degraded at an unprecedented rate (*2*).

Repatriation is under negotiation, but it is likely that the Rohingya refugees will remain in Bangladesh for some time (*10*). The situation demands development of a long-term strategy at the landscape level not only to address humanitarian needs but also to mitigate both short- and long-term environmental effects. A forest and landscape restoration approach (*11*) will provide ample opportunities to integrate environmental and humanitarian interventions, both inside and outside the refugee camps. For instance, establishing fuelwood plantations to meet the local demand will reduce pressure on nearby forests. In addition, refugees and local host communities can use native species seedlings to plant trees, facilitating reforestation of degraded lands.

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Address the roots of environmental crime

In their Letter "Madagascar: Crime threatens biodiversity" (22 February, p. 825), J. P. G. Jones *et al.* call on the new president of Madagascar, Andry Rajoelina, to get tough on environmental crime and corruption to protect what is left of the island's precious resources. However, in countries where enforcement-heavy conservation strategies take precedence, the rural poor and frontline environmental activists, rather than those truly at fault, often pay the price (*1*).

As Jones *et al.* point out, illegal activities are "often linked to local violence and insecurity," but such activities are also deeply connected to the political and economic marginalization of local communities and global demand for valuable resources (*2*). For instance, Madagascar's exports of rosewood (*Dalbergia* spp.), a high-value hardwood, increased in protected areas from 2002 to 2009 and continued unabated during Rajoelina's political coup d'état and the subsequent 5-year economic crisis (*3*, *4*). Neither local gangs nor rural communities engineered this international trade; rather, it was organized by large timber syndicates and those in positions of power with connections in global networks (*5*).

To date, top-down enforcement on environmental crime in Madagascar has mainly resulted in minor thieves held in jail indefinitely awaiting trial. Amnesty International reported that, as of October 2017, more than half the total prison population were petty offenders made up of rural poor who "lacked formal education and were underinformed of their rights" (*6*). Long-term incarceration will drive many rural inhabitants deeper into poverty, potentially reversing conservation objectives, and does little to target more powerful, centrally involved actors. Compounding the injustice, environmental activists and journalists speaking out on the government's role have also been arrested (*7*).

I agree with Jones *et al.* that enforcement is vital, but it must be implemented in a way that avoids overcriminalization of the rural poor. Fairer and more inclusive conservation policies would focus attention on important global drivers of environmental crime, including the role of complicit governments. Independent truth and justice commissions (*8*) adapted to specialize on international environmental crime could be used alongside in-depth investigations by United Nations special rapporteurs on human rights and the environment (*9*). Such programs are not meant to replace a country's judicial or enforcement systems, but rather to support existing institutions and work with transnational crime prevention programs. Interventions that directly address structural poverty at the local level could also combat counterproductive enforcement (*10*). Governments should fully adopt transparent benefit-sharing mechanisms, compensation for burdens of environmental harm, procedures to ensure diverse voices in natural resource allocation, and recognition of historical injustices (*11*).

Strengthened conservation enforcement involves not only national governments but also journalists and frontline activists, who often help hold those in power to account—including for their involvement in environmental crimes. These actors need to be able to live and work without the fear of arrest or worse. In 2017 alone, there were 207 activists and frontline environmental defenders killed worldwide (*12*). Now more than ever, we must ensure basic standards of human rights, freedom to protest, and protection of the press.

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Concerns of young protesters are justified

The world's youth have begun to persistently demonstrate for the protection of the climate and other foundations of human well-being. (*1*, *2*). As scientists and scholars who have recently initiated similar letters of support in our countries, we call for our colleagues across all disciplines and from the entire world to support these young climate protesters (*3*). We declare: Their concerns are justified and supported by the best available science. The current measures for protecting the climate and biosphere are deeply inadequate.

Nearly every country has signed and ratified the Paris Agreement of 2015, committing under international law to hold global warming well below 2°C above preindustrial levels and to pursue efforts to limit the temperature increase to 1.5°C (*4*). The scientific community has clearly concluded that a global warming of 2°C instead of 1.5°C would substantially increase climate-related impacts and the risk of some becoming irreversible (*5*). Moreover, given the uneven distribution of most impacts, 2°C of warming would further exacerbate existing global inequalities (*5*).

It is critical to immediately begin a rapid reduction in CO_2 and other greenhouse gas emissions. The degree of climate crisis that humanity will experience in the future will be determined by our cumulative emissions; rapid reduction now will limit the damage. For example, the Intergovernmental Panel on Climate Change (IPCC) has recently assessed that halving CO_2 emissions by 2030 (relative to 2010 levels) and globally achieving net-zero CO_2 emissions by 2050 (as well as strong reductions in other greenhouse gases) would allow a 50% chance of staying below 1.5°C of warming (*5*). Considering that industrialized countries produced more of and benefited more from previous emissions, they have an ethical responsibility to achieve this transition more quickly than the world as a whole (*4*, *6*).

Many social, technological, and nature-based solutions already exist. The young protesters rightfully demand that these solutions be used to achieve a sustainable society (*7*). Without bold and focused action, their future is in critical danger. There is no time to wait until they are in power.

Politicians have the huge responsibility of creating the necessary framework conditions in a timely manner. Policies are needed to make climate-friendly and sustainable action simple and cost-effective and make climate-damaging action unattractive and expensive. Examples include effective CO_2 prices and regulations; cessation of subsidies for climate-damaging actions and products; efficiency standards; social innovations; and massive, directed investment in solutions such as renewable energy, cross-sector electrification, public transport infrastructure, and demand reduction. A socially fair distribution of the costs and benefits of climate action will require deliberate attention, but it is both possible and essential (*8*).

The enormous grassroots mobilization (*2*) of the youth climate movement—including Fridays for Future, School (or Youth) Strike 4 Climate, Youth for (or 4) Climate, and Youth

Climate Strike (7)—shows that young people understand the situation. We approve and support their demand for rapid and forceful action. We see it as our social, ethical, and scholarly responsibility to state in no uncertain terms: Only if humanity acts quickly and resolutely can we limit global warming, halt the ongoing mass extinction of animal and plant species, and preserve the natural basis for the food supply and well-being of present and future generations. This is what the young people want to achieve. They deserve our respect and full support.

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SUPPLEMENTARY MATERIALS

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