

Science for Environment Policy

International trade drives nearly a third of threats to species

A pioneering new study has estimated that 30% of threats to species are driven by international trade. The researchers identified the products and supply chains which lead to biodiversity loss, and suggest that further loss can be reduced through regulation, supply chain certification and consumer labelling.

The world's biodiversity has declined at rates of 100 to 1000 times that of pre-human levels. Historically, this has been caused by local demands for food, space and fuel, but in today's globalised economy, international trade in products has caused habitat degradation and biodiversity loss in areas long distances from the place of consumption. Coffee-growing in Mexico, palm oil plantations in Malaysia and beef production in Brazil are just a few examples of industries with products that are in global demand and which have been linked to biodiversity loss.

The study provides a comprehensive examination of the role of international trade in biodiversity loss, considering whole supply chains. It linked 7000 threatened animal species on the International Union for the Conservation of Nature's Red List¹, to more than 15,000 commodities produced in 187 countries. For example, the *Ateles geoffroyi* (spider monkey) is endangered and threatened by habitat loss linked to coffee and cocoa plantations in Mexico and Central America that produce these commodities for the USA and the EU, amongst others.

The study demonstrates that developing countries tend to be net exporters of commodities implicated in biodiversity loss, and that Indonesia, Madagascar and Papua New Guinea have suffered the most damage.

Developed countries tend to be net importers of commodities implicated in biodiversity loss, perhaps the result of environmental policy that protects domestic species, causing these industries to locate elsewhere. The USA, the EU and Japan are the main final destinations for these commodities.

Agriculture is a major cause of biodiversity loss. For example, 139 species are affected in Malaysia, which exports the agricultural products palm oil, rubber and cocoa. Fishing and forestry also cause biodiversity loss, both directly, through excessive and illegal use of resources, and indirectly, by harvesting rare species and depleting habitat.

Pollution caused by trade is another problem. Pollution is responsible for 304 threats to species in China, for example. The majority of species on the Red List are vulnerable to several threats, for example, the round whiplay (*Himantura pastinacoides*) is threatened in Indonesia by chemical pollution and loss of mangrove habitat from shrimp farming, logging and coastal development.

The study provides clear evidence that global trade and economic activity are driving local threats to numerous species. Policy must be designed from a global perspective, taking into account local producers, traders at various steps of the supply chains and consumers around the world, it suggests. By identifying the impact of certain commodities, policy can reduce the volume of trade in products that harm biodiversity. Potential policies could include labelling products with biodiversity footprints to raise awareness, and an expansion of the UN Convention on International trade in Endangered Species² (CITES) so that it not only restricts trade in endangered species, but also trade in commodities whose production leads to threats to these species.



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