Redirection of Perverse Incentives for Unsustainable Livestock Production

Guidance for the Implementation of the Convention on Biological Diversity and its Strategic Plan

Deforestation in Paraguay. Photo © Miguel Lovera

Global Forest Coalition

Brighter Green
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SUMMARY

International commodities like beef, soy, palm oil, and wood have been recognized as some of the most important drivers of forest and biodiversity loss.[1] Policies to make these commodity chains more sustainable in terms of quality and quantity cannot be the responsibility of the producing countries only. Measures to reduce deforestation triggered by commodity trade in one country will almost by definition lead to transboundary "leakage" of emissions if no measures are taken to address the levels of consumption of those products. Such policies also lead to unfair competition between more responsible producers and countries, and less responsible producers and countries.

For that reason, an analysis of incentive systems to be reformed should take a multi-criteria, holistic approach that addresses their effectiveness, cost-efficiency, and their social, cultural, gender, and health effects as well. However, prior to such an analysis a proper review of the real drivers and underlying causes of biodiversity loss should be conducted. Such a review should also look at the international dimensions of these drivers, including in particular international commodity chains, which could be influenced in the production, as well as in the consumer countries of these commodities.

It is in this context that the Global Forest Coalition and Brighter Green present here (1) an analysis of unsustainable livestock production as a major driver of biodiversity loss and other negative environmental, economic, social, and cultural impacts; and (2) recommendations for reforming harmful incentives and redirecting subsidies and other forms of economic support for unsustainable livestock production, in line with the Convention on Biological Diversity's Aichi Target 3.[2]

This would free up significant amounts of financial support for more sustainable forms of food production. Positive incentives that could support more sustainable forms of livestock production include:

- Fiscal reform that supports sustainable forms and levels of livestock production and consumption, such as a redirection of the tax burden from sustainable to less sustainable products and production methods.
- Developing and implementing strict legislation prohibiting livestock production practices that involve biodiversity loss, significant greenhouse gas emissions, environmental pollution, weak labor standards, land grabbing, health risks, or maltreatment of animals.
- Legally recognizing and supporting territories and areas conserved by pastoralists, as well as their traditional knowledge related to sustainable use; and
- Incentivizing consumer campaigns about the benefits of dietary change.

This briefing paper is based on a 2013 briefing paper, Livestock Farming, Communities, Biodiversity and Climate Change, and a recently released initial report, The Impacts of Unsustainable Livestock Farming and Soybean Production in Paraguay, on the country that currently experiences one of the highest deforestation rates on the planet. Unsustainable livestock production forms by far the main driver of forest loss in Latin America, the continent with the highest rates of deforestation.

Deforestation for cattle ranching in the Paraguayan Chaco. Photo © Miguel Lovera

THE IMPORTANCE OF NON-MARKET-BASED APPROACHES TO INTERNATIONAL COMMODITY CHAIN REFORM

As noted in the draft background documents for the upcoming 18th session of the Subsidiary Body on Scientific, Technical and Technological Advice of the Convention on Biological Diversity (CBD SBSTTA) in June 2014, eliminating, phasing out, or reforming subsidies and other incentives harmful for biodiversity may have multiple benefits. These include discouraging environmentally harmful practices and behaviors, removing wider economic distortions, and freeing up scarce public resources.

The report, Non-market-based Approaches to Reducing Deforestation and Forest Degradation, concluded there are many non-market-based approaches that can be applied to address the drivers of forest loss related to international commodity chains. One promising approach is the appropriate recognition of territories and areas conserved by Indigenous Peoples and local communities (ICCAs), and the legal recognition of Indigenous territorial rights and community land tenure in general.[3]

Another important non-market-based approach is

to eliminate perverse legal, fiscal, and other incentives for commodity chains like unsustainably produced beef and animal fodder and feed that are majors driver of biodiversity loss. While consumer choices play a primary role in sustaining these chains, governments have a key responsibility and opportunity to address the negative impacts of these commodities. This is also the case because consumers often are not properly informed or aware of all the environmental, social, health, and animal welfare aspects of the meat and dairy products they consume.

IMPACTS OF UNSUSTAINABLE LIVESTOCK FARMING

As described in the case study from Paraguay and highlighted by the recent report of the United Nations (UN) Special Rapporteur on the Right to Food,[4] the small farmer running a family farm is rapidly giving way to the large-scale, factory farm model. This is particularly prevalent in the livestock industry, where millions of animals (including pigs, chickens, and cows) are raised in inhumane, unsanitary industrial conditions. These operations, along with the resources needed to grow the grain and oil meals (principally soybeans and corn) required to feed these animals place intense pressure on the world's most vulnerable ecosystems and human communities.

Soy fields in former subtropical rainforest areas in Paraguay.
Photo © Simone Lovera

Climate change is a key threat to biodiversity and estimations of the total percentage of total global greenhouse gas emissions triggered by the livestock sector vary from 14.5%[5] to an astonishing 51%.[6] Each year, more than 60 billion animals are raised for human consumption. Meat and dairy production already uses 30% of the Earth's land surface, and 70% of agricultural land, and accounts for 8% of the water humans use, mostly to irrigate feed crops. The global livestock industry is, according to UN Food and Agriculture Organization (FAO), "probably the largest sectoral source of water pollution," and one of the key agents of deforestation and biodiversity loss.[7]

Unaddressed meat and dairy consumption will make it impossible to feed the world's population in the coming decades. As the UN Special Rapporteur on the Right to Food points out: "*Over one third of the world's cereals are already being used as animal feed, and if current trends continue, this will rise to 50 per cent by 2050. Demand for meat diverts food away from poor people who are unable to afford anything but cereals. Concentrated animal feeding operations, in which industrial quantities of meat are produced, have widely reported negative environmental impacts. Continuing to feed cereals to growing numbers of livestock will aggravate poverty and environmental degradation.*"[8]

It should be highlighted that there are more sustainable forms of livestock production, which can contribute to the conservation and even the restoration of biodiversity. The Lanzur Rangelands in Iran, for example, are regulated by several tribes and used for livestock rearing based on a traditional annual rotating grazing system. This system ensures that pastures are not overexploited, and benefits and responsibilities are distributed equitably amongst the participating clans.

The Maasai pastoral communities that own the Naboisho Conservancy in Kenya's Maasai Mara have set aside part of their lands for wildlife protection while using some of the remaining land to graze their cattle.

In Paraguay, the Alianza Pastizal is trying to promote sustainable cattle ranching on the many natural pasture lands in the country, thus demonstrating that cattle ranching does not need to trigger deforestation. Indigenous peoples and local communities in countries like Finland and Spain are also trying to revive traditional herding practices that not only sustain age-old cultures but also enhance biodiversity, including in forest areas.

However, it should be highlighted that quantity is a determining factor in the sustainability of most of these practices. If the number of livestock per hectare becomes too high, there is a significant risk of

UNSUSTAINABLE LIVESTOCK PRODUCTION AS A DRIVER OF FOREST LOSS: THE CASE OF PARAGUAY

Livestock and soybean production in Paraguay are the most important production sectors. Most of the land in the country is privately controlled and devoted to the production of these commodities. Hence, most of the negative environmental impacts derive from these production activities.

Two and a half percent of the population owns 85.5% of the land, making Paraguay the country with the most unequal land distribution in the world, as reported by the World Bank. Lands once destined for agrarian reform have now been taken over by agribusinesses for soybean and cattle production. According to the "Comision Verdad y Justicia" (Truth and Justice Commission, 2010) some 7,851,295 hectares (ha) were sold illegally to agribusiness farmers and, in many cases, the preceding owners were evicted by force or by deceit.

Although most of the land is not intensively used and speculation is high, owners usually clear large extensions of land to justify its apparent use to avoid intrusion by landless peasants. Cattle ranching occupies more than half of Paraguayan territory, some 25 million ha. Paraguay is the world's ninth main exporter of bovine meat. A total of 1.03 million animals are slaughtered for export every year, and 240,000 more are slaughtered for the internal market.

In the Chaco region, located in the north of Paraguay bordering Bolivia, most of the deforestation is undertaken to plant pastures and establish ranches. In 2013, 268,000 ha were destroyed. Deforestation rates in this region are the highest in the world, reaching up to 2,000 ha/day. Most of this deforestation is being fuelled by Brazilian and Uruguayan investors.

The Ayoreo people have lived in the Chaco for about 3,000 years. They have adapted to the harsh environmental conditions of the region and developed a lifestyle that allows them to obtain all the material resources needed for their survival. At present, groups of the Ayoreo People still live in voluntary isolation, mainly in the band of territory that has not yet been converted to cattle ranching or national parks. This territory, however, is the area where most of the deforestation is taking place. Due to their vulnerability to common diseases, up to 80% of the population in voluntary isolation might die if forest conversion breaks their isolation and destroys their livelihoods.

The concentration of land has also been accompanied by an exponential increase in the area devoted to genetically manipulated or modified (GM) soybean production, which currently stands at 3.15 million ha. Multinational corporations and foreign immigrants, mainly from Brazil, largely control the soybean business in Paraguay. Paraguay is the country in South America with the highest proportion of agricultural land devoted to soybean monoculture. Most of the soy involves a GM seed-herbicide technology package.

This is a model of extensively mechanized, export-oriented production requiring minimal labor demand and high use of pesticides: an annual discharge of 25 million liters and 1.5 million kilograms of pesticides. This model has caused the degradation of fertile lands, loss of biodiversity, the disappearance of forests, a high degree of air and water pollution, and increasing cases of chronic and acute poisoning amongst the rural population, particularly women. These factors make the survival of family farming, as well as indigenous peoples' livelihoods, increasingly difficult and trigger expulsion and land abandonment.

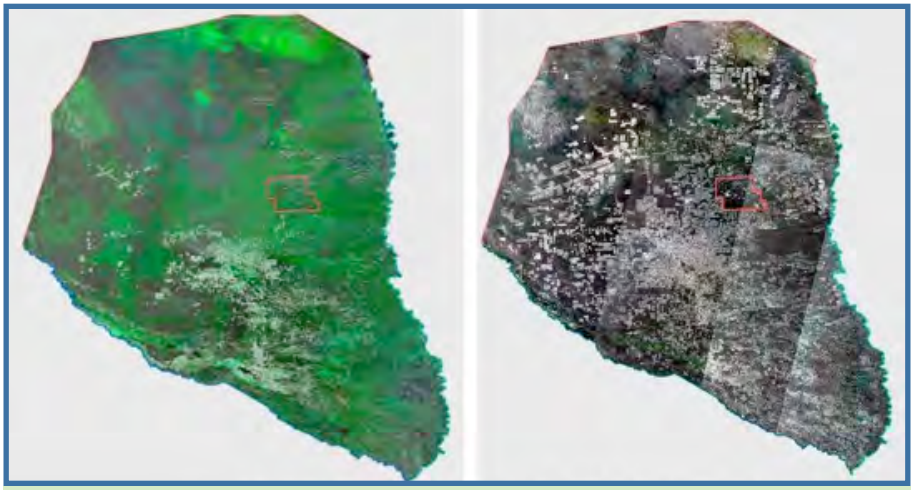
Most of the soybeans produced, 72% of domestic production, are exported as grain without any taxation. This makes Paraguay a tax haven, as few investments in the world yield as much profit as planting transgenic soybeans in Paraguay. Estimating, conservatively, the prices at about US $500/ton, production costs on the order of US $400/ha, and yields reaching averages of 2.4 ton/ha (crop year 2013/2014), would leave net profits of US $800/ha per crop cycle; at two cycles per year the profits rise to US $1,600. In 2012, the whole of the agribusiness sector contributed only US $31 million in taxes to Paraguay. This is a total contribution of just 2.5% to national tax revenues, while its export value was estimated at US $3 billion.

Source: The Impacts of Unsustainable Livestock Farming and Soybean Production in Paraguay, Global Forest Coalition, 2014

ecosystem degradation and diminished livelihoods of the pastoralists themselves.

REDIRECTING PERVERSE INCENTIVES FOR UNSUSTAINABLE LIVESTOCK PRODUCTION

In light of the above, the redirection of subsidies and other forms of economic and policy support for unsustainable livestock production to more diverse sustainable and humane methods of food production that are climate resilient and protect biodiversity and diverse human communities is one of the most effective policy steps that can be taken to implement the CBD's strategic plan.



Deforestation in Paraguayan Chaco, 1990-2013. Image © Survival International

The overwhelming majority of Organization for Economic Co-operation and Development (OECD) subsidies to the livestock sector continue to support production systems that are highly dependent upon imported feedstocks like soy, as well as being highly questionable from a climate, environmental, social, health, and animal welfare point of view. In November 2002, Nicholas Stern, then Chief Economist at the World Bank, calculated in a speech at the Munich Center for Economic Studies that the average cow in the European Union (EU) gets US $2.50/day in subsidies, and the average cow in Japan gets US $7.50/day, while 75% of people in Africa live on less than US $2/day.[10]

Direct subsidies for animal products and feed in industrialized countries (OECD members) in US billion dollars[9]

Beef and Veal	18
Milk	15.3
Pigmeat	7.3
Poultry	6.5
Soybeans	2.3
Eggs	1.5
Sheep	1.1

Non-OECD countries are increasingly subsidizing intensive livestock systems as well. China, for example, which has become the main destination for Latin American soy, provides more than US $500 million in subsidies to promote "scale" livestock and poultry farms, on top of an estimated US $564 million in "award" payments for major pig-producing counties.[11] The Brazilian Development Bank provides generous soft (low interest) loans to cattle and soy producers, including investments in neighboring Paraguay. The total amount of such credit provided through the Brazilian government's 2010 Agriculture and Livestock Plan was US $61 billion, of which only US $8.5 billion was directed towards small family farms, which produce an estimated 60% of Brazil's food.[12]

CONCLUSION

The redirection of subsidies for unsustainable livestock production to more diverse, sustainable, and humane methods of food production would free up significant amounts of financial support for more sustainable forms of agriculture that would not only contribute to biodiversity conservation, but also to climate change mitigation and adaptation.

Other positive incentives to promote more sustainable levels and forms of livestock production and consumption include the promotion of consumer campaigns about the benefits of dietary change, in line with some of the successful campaigns that have been started by civil society. Fiscal reform, such as redirecting tax burdens to the most unsustainable forms of food production and consumption in terms of health, social, environmental, and animal welfare impacts, provides another promising measure to promote more sustainable forms of food production.

The recognition of territories and areas conserved by pastoralist Indigenous Peoples and communities (ICCAs) and support for their sustainable practices can play an important role in enhancing the resilience and socio-economic viability of sustainable forms of livestock production, and the rich traditional knowledge and cultural practices that sustain these ICCAs. ICCAs are increasingly recognized as the most effective and socially sound area-based conservation measures.[13]

Last but not least, strict regulations are often the most effective way to avoid the externalization of environmental and social costs like deforestation, water

contamination, climate change, rural depopulation, and negative animal welfare impacts that are triggered by unsustainable forms of livestock. As pointed out by several livestock and feed producers involved in sustainability initiatives at a recent conference on "Scaling Up Sustainable Commodity Supply Chains" organized by the Katoomba Group in Brazil, greater government involvement, including stronger regulation and law enforcement, is an essential condition to scale up often worthwhile initiatives and avoid their remaining economically marginalized in an otherwise unsustainable market.

Unsustainable livestock farming is a major driver of biodiversity loss and climate change. As with other commodity chain-related drivers, policies and projects that address the impacts of unsustainable livestock farming in one country or area will unavoidably lead to increased biodiversity loss and greenhouse gas emissions in other countries (leakage) as long as the overall demand for livestock products is not addressed. Moreover, while sustainable forms of livestock production are possible, they will always require quantitative restrictions regarding the number of animals per hectare to prevent overgrazing or other negative impacts on ecosystems.

A range of incentive-related measures can be applied to address the negative impacts of livestock production on biodiversity. They include:

1. The redirection of financial and technological support for unsustainable livestock production to environmentally and socially sustainable, small-scale farming systems, and traditional forms of pastoralism that conserve and enhance natural ecosystems like native grasslands, wetlands, and open forests.

2. The recognition of pastoralist ICCAs.

3. The promotion of educational campaigns that encourage responsible dietary change.

4. Fiscal reform that promotes more sustainable methods and levels of meat and dairy production and consumption.

5. The development and implementation of strict legislation prohibiting practices that involve serious biodiversity loss, climate change, environmental pollution, weak labor standards, land grabbing, health risks, and maltreatment of animals.

It should be ensured that such reform and redirection of policies and incentive measures is not blocked or otherwise frustrated by international trade rules. Countries should foster the policy space required to pursue more economically, socially, and environmentally sustainable development and to take the necessary measures to implement the CBD's strategic plan. For that reason, Parties should halt negotiations on bilateral and multilateral trade agreements that might weaken national standards related to biodiversity, the livestock sector, and food and agriculture in general.

Lastly, as the draft documentation for the upcoming CBD SBSTTA meeting rightfully points out, the reform of incentive schemes should take into account all economic, social, cultural, environmental, gender, and equity aspects of these schemes. For that reason, we recommend to fully involve Indigenous Peoples and local communities as well as other rightsholder groups like women, small farmers, pastoralists, fisherfolk, and trade unions in the design and implementation of incentive reform.

ENDNOTES

[1] See for example Getting to the Roots: Underlying Causes of Deforestation and Forest Degradation, and Drivers of Forest Restoration, http://www.ucsusa.org/assets/documents/global_warming/UCS_RootoftheProblem_DriversofDeforestation_FullReport.pdf and http://www.globalcanopy.org/LittleBookofDrivers

[2] The 20 Aichi Targets were agreed by Parties to the Convention on Biological Diversity in Nagoya, Japan, in October 2010. They are now being translated into revised national strategies and action plans by Parties to the Convention and are to be achieved by 2020. Aichi Target 3 calls for incentives, including subsidies harmful to biodiversity to be "eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions."

[3] For more information see http://www.iccaconsortium.org and http://naturaljustice.org/library/our-publications/legal-research-resources/icca-legal-reviews

[4] Report of the Special Rapporteur on the Right to Food, Olivier De Schutter to the UN Human Rights Council, A/HRC/25/57.

[5] United Nations Food and Agriculture Organization (FAO), Livestock Impacts on the Environment, Spotlight, 2006. http://www.fao.org/ag/magazine/0612sp1.htm

[6] R. Goodland and J. Anhang, "Livestock and Climate Change: What if the Key Actors in Climate Change are Cows, Pigs, and Chickens?", World Watch, November/December 2009.

[7] FAO, ibid.

[8] Report of the Special Rapporteur on the Right to Food, Olivier De Schutter to the UN Human Rights Council, A/HRC/25/57.

[9] Chemnitz, C. and Becheva, S., 2014. Meat Atlas, Facts and Figures about the Animals We Eat. Heinrich Boell Foundation and Friends of the Earth Europe.

[10] World Bank Chief Economist Urges Cuts in Rich Country Agricultural Subsidies, http://go.worldbank.org/MQQ12QYDN0

[11] http://dimsums.blogspot.com/2013/07/chinas-livestock-support-policies-2013.html

[12] "Financing Brazilian Farmers up 7% to US $61 Billion in the Next Crop," BrazzilMag, June 8, 2010, www.brazzilmag.com

[13] http://www.cbd.int/doc/publications/cbd-ts-64-en.pdf