

What's feeding our food?

The environmental and social impacts of the livestock sector

Summary

The food that we eat has a significant, but often hidden, environmental footprint. Producing it requires ever-growing quantities of land, water, energy and chemical inputs – which has serious consequences for the environment.

Meat and dairy production has a particularly large impact. Intensive farming methods in Europe, which rely on high-protein animal feeds, have created a global food chain in which UK poultry, pigs and cattle depend on feed crops from the other side of the world.

Soy, grown and imported from Latin America, has become the main source of protein in animal feed. It has created a soy boom where vast swathes of land in Brazil, Paraguay and Argentina have been converted for large-scale production – causing deforestation, greenhouse gas emissions and the loss of valuable wildlife habitat.

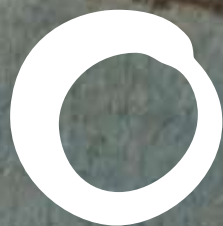
The livestock sector is responsible for an estimated 18 per cent of global greenhouse gas emissions,¹ and deforestation is a significant source. Reducing the impact of the livestock sector is critical if we are to prevent dangerous climate change.

Soy farming has devastating local impacts, contaminating soil and water with pesticides and other inputs. It has also been linked to human rights abuses, forced evictions and intimidation of local communities. Small-scale farmers are pushed out by the vast soy monocultures and struggle to survive in the global agro-industry. Many are forced to sell up and leave the land.

Crops for human consumption are being replaced by soy plantations for animal feed and biofuels. This pressure on food supplies has added to the recent volatility in global food prices, exacerbating global hunger and poverty.

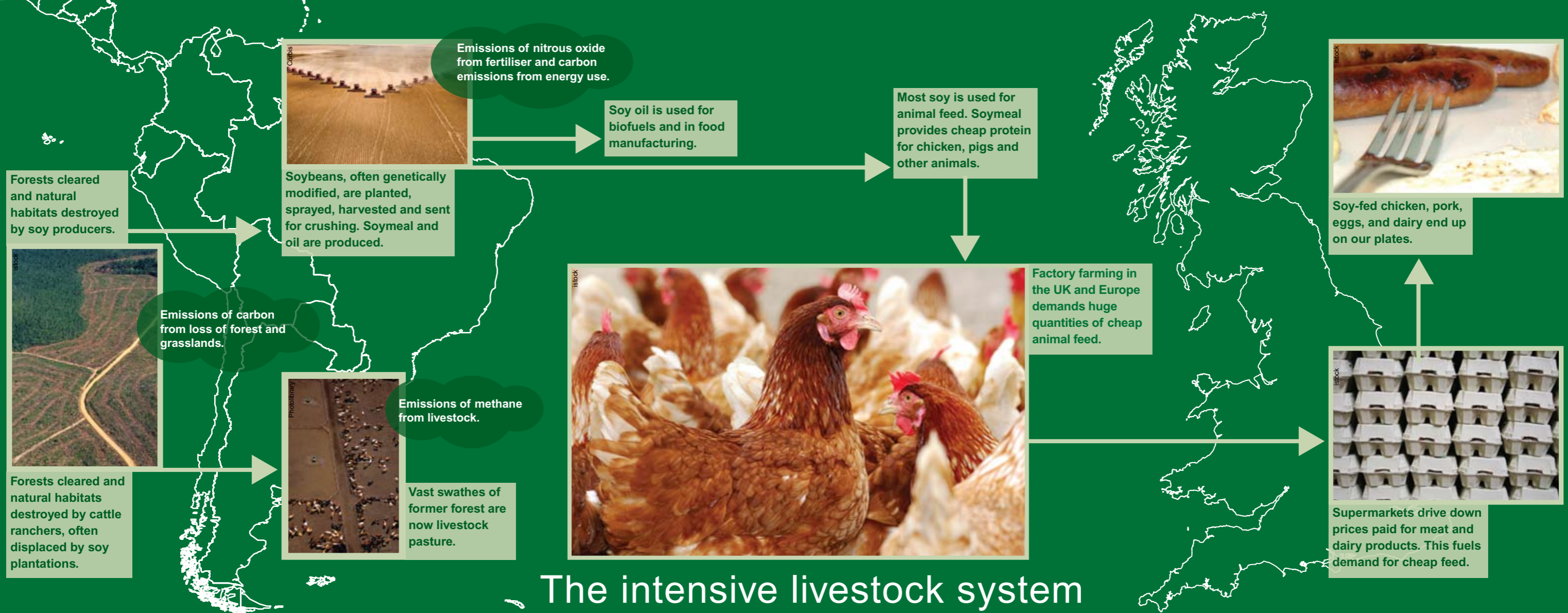
This summary traces the impacts of the livestock chain from the soy field in Latin America to the supermarket shelf. It examines the environmental and social impacts and puts forward the case for the UK Government to act.

The full report can be found at: www.foe.co.uk/resource/briefings/livestock_impacts.pdf



**Friends of
the Earth**

Friends of the Earth December 2008



Soy production in Latin America

Soy production has expanded rapidly and now covers an area the size of California.² Brazil, Argentina and Paraguay are all major producers – and the EU is a key market.

78 per cent of UK soybeans are imported from Brazil.³

Soy use in animal feed

Livestock breeding for intensive farming has produced animals dependent on high-protein feeds to fuel fast growth and large meat, egg and milk yields. European agricultural policy, including the ban on the use of meat and bonemeal in animal feed since the BSE outbreak, has driven a dependence on imported soy to provide this protein.

97 per cent of the soymeal produced worldwide is used for animal feed.⁴

Nearly a third of Brazil's total soy harvest is exported to the EU.

Biodiversity under threat

Soy farms are expanding at the expense of Latin America's natural habitats – the grasslands of the Brazilian Cerrado, the uniquely diverse Amazon, the Atlantic Forest, and the Chacos region.

The Cerrado is one of the world's largest and most naturally diverse savannah regions, home to endangered species including the giant otter and hyacinth macaw.

Around 70 per cent of the Brazilian Cerrado has been converted to agriculture.⁵

The Amazon is the world's largest tropical forest and one of the most naturally diverse regions on Earth. It plays a crucial role in regulating the global climate.

The Atlantic Forest is home to around 8,000 unique plant species, but just 10 per cent of its original area remains in increasingly isolated fragments.

Cattle ranching in Latin America

Cattle farmers whose animals once grazed on fertile grasslands have been forced into forest areas, driving deforestation in the Amazon and other areas.

Brazil is the world's largest exporter of beef with an estimated 204 million cattle.⁶ Brazilian beef accounts for 13 per cent of the UK's beef imports.⁷

Climate change and livestock

Livestock production is responsible for 18 per cent of global greenhouse gas emissions. Emissions occur at almost every stage of the supply chain.

Simply producing animal feed requires large quantities of energy, but it is the destruction of forest and grasslands which causes the bulk of the carbon emissions. Forests and soils store carbon which is released when land is cleared. Land use change is responsible for 6 per cent of livestock's greenhouse gas emissions.⁸

Methane, including from animal digestion, contributes a further 6 per cent to global greenhouse gas emissions.⁹

Soy and local people

Soy expansion is driving out small farms and rural communities, destroying jobs and leaving local people without access to land. Rural unemployment in soy areas is high, and labour conditions are harsh.

Violent land disputes have arisen between local people and soy developers across Latin America. In Paraguay, communities have been forcibly evicted and their homes destroyed.¹⁰ The country is a nation of small farmers, but a tiny, rich minority own almost all of the land.

Three out of four soy farms in Paraguay are owned by foreign land owners.¹¹

Soy and pesticide use

Almost all of the soy grown in Argentina and Paraguay is genetically modified. Soy farmers spray a cocktail of weedkillers on the fields, contaminating neighbouring crops, soils and water supplies.

Communities living near the plantations are exposed to chemicals sprayed on the soy resulting in loss of crops and livestock and serious health problems. These impacts can be fatal.¹²

Poisoned by pesticides

Eleven-year-old Silvino Talavera died in 2003 after a tractor spraying chemicals on a soy field near his home in Paraguay failed to see him in its path. After a long legal battle by Silvino's family, the landowner was given a jail sentence in 2006.



Soy and big business

US companies Cargill and Bunge dominate the Latin American soy industry and much of the animal feed supply chain. They buy up beans from farmers, run crushing mills and export the products worldwide, including soymeal to the UK and Europe.

Consumption

Globally, livestock consumption is growing. In Europe the majority of soy in animal feed is used for pork and poultry production. In the UK the quantity of poultry consumed has almost doubled in the past 20 years.¹³

Typical diets in industrialised countries contain far more protein than the body needs, which can lead to health problems.¹⁴ Excess protein has been linked to kidney stones and bone defects.

Too much meat and dairy can also mean too much animal fat – high levels of which have been associated with heart disease and some types of cancer.

Intensive soy production in Latin America is dependent on, and fuelled by, industrial farming in the UK and Europe. Friends of the Earth is calling on the Government to revolutionise the way we produce meat and dairy to break this chain, and to help protect the environment and livelihoods while supporting a thriving and sustainable livestock sector in the UK.

The UK Government should:

1. **Stop spending taxpayers' money on subsidising intensive livestock farming and invest in research into local feed production. This requires significant changes to UK and European agricultural policy, a reduction in consumption levels and investment in developing alternative animal feeds.**
2. **Introduce new legislation to ensure public money is not spent on environmentally damaging, unhealthy food for schools, hospitals, care homes, the armed forces and prisons.**
3. **Address the climate change impacts of livestock production, including the worldwide impacts of the global food chain. This means pushing for an agreement at the international climate talks on reducing forest loss from agricultural expansion.**
4. **Change global investment policy and stop spending taxpayers' money on finance for damaging intensive livestock schemes via the World Bank, European Bank for Reconstruction and Development, and other forms of bilateral finance.**
5. **Fund research and development into sustainable farming, including suitable breeds, crop varieties and cropping systems. Set up a Sustainable Agricultural Research Council to provide an appropriate and well-funded institutional setting**
6. **Make UK companies, including supermarkets, accountable for the impact on people and the environment abroad.**
7. **Revise the Sustainable Consumption and Production Strategy so that it addresses the full impacts of livestock production, and recognises the benefits of changed consumption patterns to the environment and human health.**
8. **Review European Trade Policy and ensure greater priority is given to the environmental and social impacts of global trade.**

References

- 1 Livestock's Long Shadow, FAO, 2006
- 2 Livestock's Long Shadow, FAO, 2006
- 3 Soy Consumption for Feed and Fuel in the EU, Van Gedler et al, October 2008
- 4 Livestock's Long Shadow, FAO, 2006
- 5 Conservation International Biodiversity Hotspot and WWF Global 200 ecoregion.
- 6 The Cattle Ranching Chain in the Brazilian Amazon, Smeraldi, 2006
- 7 Meat and Livestock Commission UK Beef Market Trends, 2006 figures
- 8 Based on figures in Livestock's Long Shadow, FAO, 2006
- 9 World Agriculture Towards 2015, FAO, 2003
- 10 Grupo de Reflexion Rural, 2006, http://commodityplatform.org/wp/wp-content/uploads/2007/09/paraguay-soyero_english.pdf.
- 11 The role of UK companies in driving soy expansion in South America, Profundo, September 2008
- 12 The Dutch Soy Coalition, 2008, http://www.bothends.nl/uploaded_files/2006_Soy_big_business.pdf
- 13 Meat and Dairy Production and Consumption, FCRN, November 2007
- 14 World Health Organization, 2007, http://whqlibdoc.who.int/trs/WHO_TRS_935_eng.pdf



**Friends of
the Earth**

Making life better for people by inspiring solutions to environmental problems

Friends of the Earth, England Wales and Northern Ireland
26-28 Underwood Street, London N1 7JQ, United Kingdom
Tel 020 7490 1555 Fax 020 7490 0881 Website www.foe.co.uk
Trust company number 1533942, charity number 281681

Credits | Author: Helen Burley | Edited: Real Food Team, Nicky Stocks | Design: www.aylostudio.com

♻️ Printed in the UK on paper made from 100 per cent post-consumer waste

December 2008