



River Court, Mill Lane, Godalming, Surrey, GU7 1EZ, UK
T: +44 (0)1483 521 950 Email: peter.stevenson@ciwf.org

Global Pact for the Environment

Submission by Compassion in World Farming

Compassion in World Farming warmly welcomes the proposed Global Pact for the Environment. We hope that it will address the detrimental impacts on the environment of industrial animal agriculture.

Resource inefficiency of industrial animal agriculture: Industrial production is dependent on feeding human-edible cereals to animals who convert them very inefficiently into meat and milk. Globally 36-40% of crop calories are used as animal feed.^{1 2}

For every 100 calories of human-edible cereals fed to animals, just 17-30 calories enter the human food chain as meat or milk.^{3 4} For every 100 grams of protein in human-edible cereals fed to animals, just 43 grams of protein enter the human food chain as meat or milk.⁵

The FAO warns that further use of cereals as animal feed could threaten food security by reducing the grain available for human consumption.⁶ The European Commission's Joint Research Centre (JRC) has recently said: "use of highly productive croplands to produce animal feedstuffs ... represents a net drain on the world's potential food supply".⁷

Impact on the environment: The recent JRC report states: "Given the massive scale of livestock production systems, it is unlikely that any other single human activity has a larger environmental impact on the terrestrial land mass of the planet."⁸

The *Global Land Outlook* published by the UN Convention to Combat Desertification (UNCCD) states: "Our food system has put the focus on short-term production and profit rather than long-term environmental sustainability".

Animal agriculture's need for feed has had two consequences that undermine natural resources: the intensification of crop production and the expansion of farmland. The growing demand for land as pasture for cattle and to grow soy and cereals to feed industrially farmed animals has led to the expansion of farmland into forests and other natural ecosystems such as the Gran Chaco and the Brazilian Cerrado.⁹ This leads to massive loss of wildlife habitats and the release of stored carbon into the atmosphere.

Industrial livestock's huge demand for feed has fuelled the intensification of crop production which, with its use of monocultures and agro-chemicals, has led to overuse and pollution of ground- and surface-water,¹⁰ soil degradation,^{11 12} biodiversity loss,¹³ and air pollution.¹⁴

Pollution and overuse of water: The UN states that "Intensive livestock production is probably the largest sector-specific source of water pollution".¹⁵

Industrial livestock production generally uses and pollutes more surface- and ground- water than grazing or mixed systems.¹⁶ This is due to industrial systems' dependence on grain-based feed.¹⁷ Huge quantities of nitrogen fertilisers are used to grow this feed. However, only 30-60% of this nitrogen is taken up by feed crops.¹⁸ Moreover, the concentrate feed given to industrial livestock contains high levels of nitrogen. However, pigs assimilate just 30% and poultry 45% of the nitrogen in their feed; most of the nitrogen is excreted in their

manure. Much of the nitrogen that is not absorbed by crops or livestock runs off to pollute water and marine ecosystems. Further intensification of animal production systems will result in increasing use and pollution of water per unit of animal product.¹⁹

A major study *Our Nutrient World* found that “like the European cycle, the global nitrogen cycle is also dominated by humanity’s use of reactive nitrogen to raise livestock”.²⁰

Soil degradation: Research clearly shows that the intensification of agriculture is a major factor in the degradation of soils.^{21 22} Soil quality is now so poor that the FAO has calculated that we have only about 60 years of harvests left.²³

A recent study concludes that “modern agriculture, in seeking to maximize yields ... has caused loss of soil organic carbon and compaction, impairing critical regulating and supporting ecosystem services”.²⁴

The new JRC report (which takes a global, rather than an EU, perspective) states that overuse of synthetic fertilisers can “result in a decline in soil condition and structure, including reduced soil carbon content, soil waterholding capacity and porosity. These changes may compromise the long-term ability to support food production”.

Degradation of soils reduces their fertility and their ability to store carbon which is essential to mitigate climate change. It also weakens soils’ capacity for retaining water. This exacerbates flooding and diminishes plants’ ability to withstand droughts. Degraded soils are vulnerable to erosion which leads to loss of nutrients and hence to eutrophication of rivers and other aquatic ecosystems.

If the quantity of crops needed as animal feed were reduced, arable land could be farmed less intensively. This would enable the quality of agricultural soils to be restored by methods such as the use of rotations, legumes, fallow periods, green manure and animal manure.

Air pollution arising from agriculture: Agriculture is a major source of three important air pollutants: ammonia, particulate matter and nitrous oxide. Air pollution is a serious problem for human health as it contributes to conditions such as bronchitis, asthma, lung cancer and congestive heart failure. Studies show that in some countries – including Denmark and the UK – agriculture is responsible for a larger proportion of the health problems arising from air pollution than transport or energy generation.^{25 26} Agriculture’s emissions largely result from livestock and fertilisers; a substantial proportion of these are used to grow crops for animal feed.

Breaching planetary boundaries: Research has established nine planetary boundaries which, if crossed, could generate irreversible environmental changes and drive the planet into a much less hospitable state.²⁷ In two cases – (i) biodiversity loss and (ii) nitrogen and phosphorus flows – we have crossed the boundary and entered a high-risk zone. Industrial livestock production has played a major part in the crossing of both these boundaries. Nitrogen and phosphorus are primarily used in fertilisers much of which are used to grow crops for animal feed.^{28 29 30} The demand for huge quantities of feed crops has led to biodiversity loss through both the intensification and the expansion of arable production.³¹

The need for the Global Pact for the Environment to support changes to food production that promote environmental sustainability

Industrial livestock production, in large part due to its demand for feed crops, leads to soil degradation, excessive use of land, overuse and pollution of ground- and surface-water, air pollution and biodiversity loss. With the exception of biodiversity loss, these areas are not well covered by international environmental law.

Certain aspects of **land and soil degradation** are addressed by the UN Framework Convention on Climate Change, the Convention on Biological Diversity and the UN Convention to Combat Desertification. However, each of these Conventions has a clear focus that is identified in their titles and none of them directly address the degradation of soils and the expansion of farmland into forests and other important ecosystems that result from industrial animal agriculture.

The international legal framework relating to **water** establishes global standards of protection but these are minimal standards and there is no clear focus on the overuse and pollution of water that stems from industrial livestock production. Moreover, international legal standards on water only apply to international watercourses. As a result, internal rivers, lakes and groundwater aquifers are not subjected to any of those requirements as long as they do not harm neighbours or the marine environment.³²

The importance of addressing water issues is highlighted by the UNCCD's *Global Land Outlook* which states: "Long-term food and water security will require shifts away from resource-intensive production, carbon-intensive processing and transport, [and] land-intensive diets (primarily from the increased demand for animal products and processed foods)".

The cereals used as animal feed are produced intensively with the use of **pesticides** which are damaging to biodiversity including pollinators. The UN Special Rapporteur on the right to food, Hilal Elver, says that while: "there is no shortage of international and national legislation, as well as non-binding guidelines, such instruments are failing to protect humans and the environment from hazardous pesticides. These instruments suffer from implementation, enforcement and coverage gaps, and generally fail to effectively apply the precautionary principle or meaningfully alter many business practices. Existing instruments are particularly ineffective in addressing the cross-border nature of the global pesticide market, as proven by the widespread and often legally permitted practices of exporting banned highly hazardous pesticides to third countries. These gaps and inadequacies should be confronted".³³

Hilal Elver recommends: "The international community must work on a comprehensive, binding treaty to regulate hazardous pesticides throughout their life cycle, taking into account human rights principles. Such an instrument should:

- (a) Aim to remove existing double standards among countries that are particularly detrimental to countries with weaker regulatory systems;
- (b) Generate policies to reduce pesticide use worldwide and develop a framework for the banning and phasing-out of highly hazardous pesticides;
- (c) Promote agroecology;
- (d) Place strict liability on pesticide producers."³⁴

International law has not been effective in tackling **air pollution**. A recent study concludes: "that the legal measures currently in place fall far short of providing an adequate response to the problem of air pollution".³⁵

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