

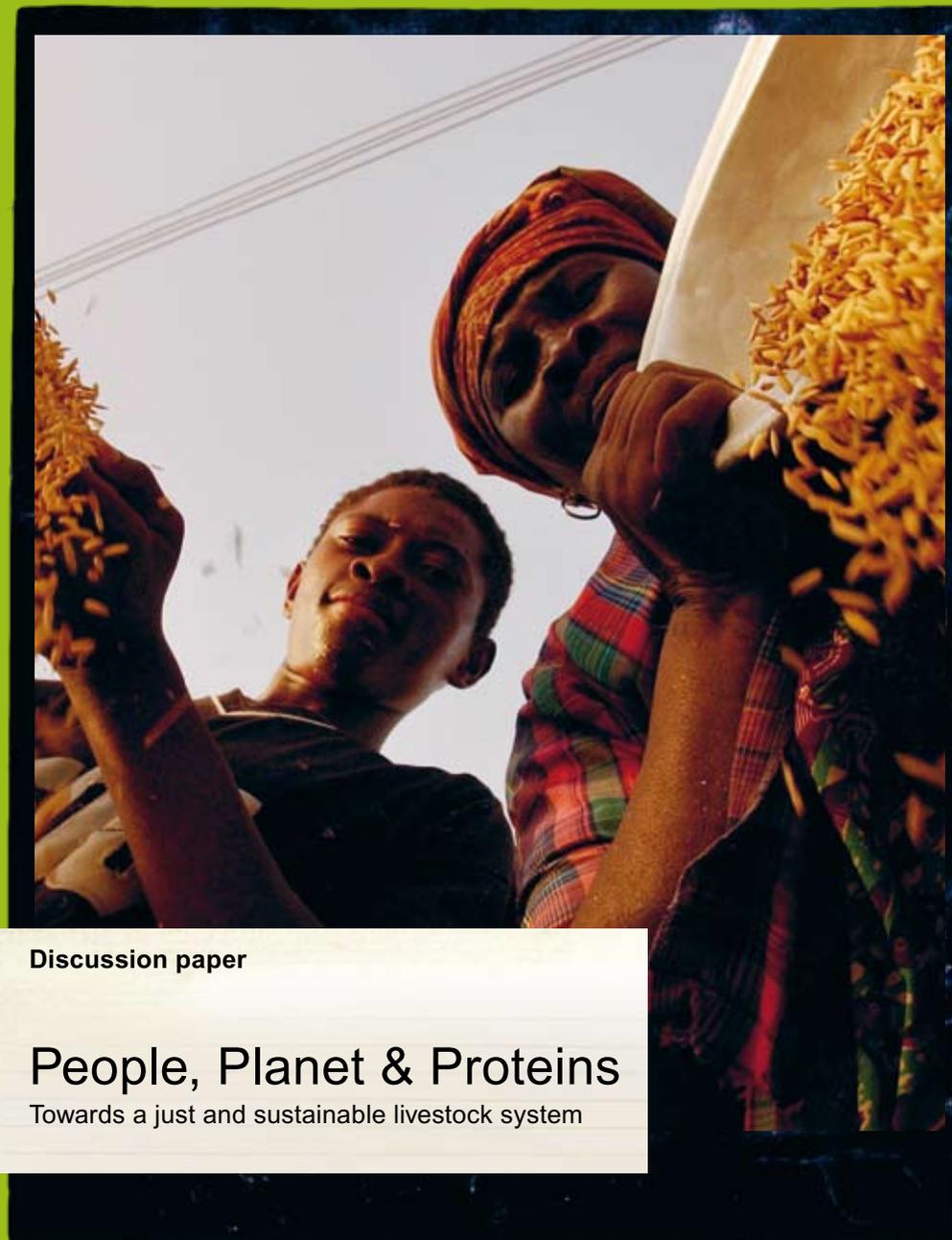
People, Planet and Proteins

Towards a just and sustainable livestock system

The world faces a major challenge: how can we feed a growing number of people while at the same time halt the depletion of natural resources and restore damaged ecosystems? The industrial production of livestock and the consumption of animal proteins in industrialised countries are important drivers of these developments. As a result, the right to food of millions of people is under threat, yet more food than ever is being produced.

A reduction in the consumption of animal proteins in industrialised countries and a reform of the livestock production system decreases the pressure on our natural resources and mitigates the adverse effects. The right to food should be the main principle in transforming the livestock production system towards a more sustainable and social supplier of animal proteins.

To prevent further harm and secure benefits for people and the environment, Oxfam Novib advocates that institutions and companies encourage pro-poor development policies transforming livestock production system towards sustainability and equity, facilitating small producers' access to markets, and preventing harm being inflicted on poor communities outside the production chain itself.



Discussion paper

People, Planet & Proteins

Towards a just and sustainable livestock system

Introduction

The world faces a major challenge: how can we feed a growing number of people while at the same time halt the depletion of natural resources and restore damaged ecosystems? The unprecedented loss of biodiversity, unrelenting global warming and the unequal distribution of food are ingredients for an environmental and humanitarian disaster. The industrial production of livestock and the consumption of animal proteins in industrialised countries are important drivers of these developments. As a result, the right to food of millions of people is under threat, yet more food than ever is being produced.

There is an obvious need for a transition towards sustainable production and consumption. The present system of food production does not trigger consumers in industrialised countries to change their unsustainable consumption patterns. And unsustainable forms of livestock production have failed to address the negative impact. New ways of consuming and producing food are urgently needed.

To prevent further harm and secure benefits for people and the environment, Oxfam Novib believes that institutions and companies must encourage pro-poor development policies, facilitate small producers' access to markets, and prevent harm to poor communities outside the production chain itself. The right to food must be the main principle in transforming the livestock production towards a more sustainable and socially responsible provider of animal proteins. We need policies to reduce meat consumption in industrialised countries, the incorporation of negative externalities in the prices of animal products, codes of conduct and incentives for developing countries to preserve natural resources.

The socio-economic impact of industrial livestock farming

Livestock farming covers 80% of the total agricultural surface. In many parts of the world, livestock forms an integral part of mixed farming systems that support rural livelihoods. An estimated one billion people depend on livestock production as a source of income and subsistence.¹ Livestock provides income, meat and other quality food, fuel, draught power, building material. It contributes to food security.² Despite its benefits to billions of people across the globe, unsustainable forms of livestock farming and unsustainable patterns of consumption are accelerating the trends of depleting natural resources, growing inequality in access to food and global warming.³

Unequal patterns of animal protein consumption

In 1980, the global average meat consumption was 30 kg per capita per year. By 2008 per capita meat consumption had risen to 42.2 kg per year, an increase of about 40%.⁴ Though growth in meat consumption is mainly attributed to increases in income and demand in emerging economies, such as India and China, current meat consumption levels in the industrialised world by far exceed new demand. The average person in India eats 5 kg meat per year, in Africa 14 kg and in China 54 kg, but the average person in the US eats 123 kg of meat a year. 10% of the world population consumes 25% of the animal proteins available worldwide.⁵ The production of meat is predicted to double from 229 million tons in 1999 to 456 million tons in 2050.⁶ The 'meatification' of diets is not the best use of scarce resources.³

Consumption patterns in developed countries are, at least in part, responsible for the situation we now face. The impact on global food security of consumption in rich countries is a topic preferably ignored in international debates.³ This must change.



Poverty, vulnerability and climatic variability in Ethiopia

“People who are already poor and marginalised are struggling to cope with the added burden of increasingly unpredictable weather,” says Abera Tola, Oxfam’s Horn of Africa regional director. “It’s getting harder and harder for families and communities to bounce back from ever-changing, inconsistent weather affecting their livelihoods, and many have been forced to sell livestock, their coping mechanism, thus only worsening the cycle of vulnerability.”⁷

Photo: Stephan Vanfleteren

The negative externalities of industrial livestock production

The rising demand for animal proteins and competitive pressures have encouraged the development of industrial livestock production. This development is associated with globalisation, trade liberalisation and a transformation to industrial scale food production by globalised agri-business.² As a consequence, the growth in animal protein production has aggravated competition for land between its various uses and users, and has also resulted in negative effects that are not taken into account.³ People in developing countries are the first to feel the impact, because this development threatens their livelihoods first and foremost and limits their access to food.

The unpaid bill of industrialised animal production

Recent decades have seen a demand-led rapid growth in the production of animal proteins, the so-called livestock revolution. On the supply side, the livestock revolution was fuelled by inexpensive, often subsidised grains, cheap fuel and rapid technological change.⁸ One common theme is the growth in the contribution of large-scale units, either ranches or factory farms, measured as a percentage of total production. These industrialised systems may produce more meat or dairy products, but it means relying on large-scale units or systems that are associated with a range of serious environmental problems and social costs, which are not included in the prices we pay.²

Feed competes with food

The net result of the rapid growth in the demand for livestock products is that one third of all cropland is now used to produce animal feed. This competition for land, traditionally used for food crops, puts upward pressure on the prices of staple foods and may undermine people's access to food.⁹ At present more than 35% of the worldwide grain harvest is fed to animals.¹⁰ The grain used to feed animals could effectively provide the annual calorie needs of over 3.5 billion people.¹¹ The FAO states that even if livestock does not directly take away food from those who now go hungry, it does raise the overall demand and thus prices. This will put at a disadvantage the people who are not net producers of food, such as subsistence farmers, and the rural and urban poor.⁹

Livestock affects access to water

Currently livestock accounts for 8% of global water consumption, primarily for the irrigation of feed crops. The production of animal proteins is low in water efficiency in comparison with the cultivation of vegetable proteins. The production of one kilo of beef takes an average of 15,500 litres of water, a kilo of rice needs 3,000 litres.¹² The growth of industrial livestock systems is increasing the need for water for feed crop production.⁹ This poses a further threat to the availability of water fit for human use. Already more than a billion people lack access to drinking water and it is estimated that by 2025 64% of humanity will be living in areas suffering water shortages if present consumption patterns continue.¹³



Deforestation threatens the livelihoods of indigenous people in Amazon

As a result of deforestation an estimated half a million indigenous people living in humid tropical regions are in danger of losing their unique cultures and knowledge of medicinal plants. The expansion of ranching, but also the expansion of feed crop production can cause this unique pool of knowledge to be lost. Most of the deforested soils are exhausted after 10 to 15 years, leaving many farming systems unsustainable and leading to a substantial displacement of local populations and social upheaval.¹

Livestock induced climate change threatens livelihoods

Livestock farming is one of the major contributors of global warming with an estimated share of 18% in total greenhouse gas emissions.⁶ Climate change poses a serious threat, particularly to the poor, because developing countries have limited capacities to adapt to climate variability. Poor people in rural areas often depend to a great extent on 'public' natural resources. The developing world is also most vulnerable to the impact of climate change, such as flooding, droughts and changed temperature patterns. It is expected that this will result in a rise in dependency on food imports, mostly affecting the people who can least afford the extra costs.² The impact of climate change is not gender neutral. Poor women are often more severely affected by climate change, because of gender-based discrimination, unequal power relations between women and men, including in access to assets and resources, and inequities within the household and related vulnerabilities, capabilities and opportunities for adjustment.¹⁴

Climate change is already threatening the ability of entire regions to maintain current levels of agricultural production.² Environmental degradation and longer and more frequent droughts are forcing about 200 million pastoralists who depend on grazing lands in arid zones into a downward cycle of hunger and food-aid dependency. Because natural resources are already used at maximum efficiency, the scarcity of land and water is making conflicts over these resources increasingly common.¹

Poor people, concentrated in developing countries are thus in a quadruple crunch: (1) they are affected by overall climate change while they are not the ones causing it (2) they lack a public support system, (3) they are highly dependent on vulnerable and changing natural systems (4) and they lack the financial means to adapt.

Livestock causes biodiversity loss and harms vital ecosystems

Livestock farming causes 30% of biodiversity loss around the world.¹⁵ Biodiversity plays an important role in the food security of poor people. Biodiversity provides environmental resilience and it is a source of livelihoods through the direct use of plants and animals and through ecosystem services.¹⁶ Large-scale cattle ranching in particular causes biodiversity loss through deforestation. Cattle ranching is thought to be responsible for 80% of all deforestation in the Amazon region, endangering directly the livelihoods of hundreds of thousands of people.¹⁷ Deforestation also contributes to climate change, as forests are important carbon sinks, resulting in a severe and accelerating impact on poor communities.

Industrial livestock narrows genetic diversity

The rapid spread of large-scale industrial livestock production focused on a narrow range of breeds is the biggest threat to the world's farm animal diversity. It has led to the marginalisation of traditional production systems and associated local breeds.¹⁸ Maintaining a healthy genetic diversity of livestock and plants is crucial to protecting the nutritional demands of a growing global society. Farmers will require new varieties capable of producing under diverse and changing conditions. Many original breeds and plant varieties have been replaced by high yielding alternatives that require large capital investments and external resources. Poor farmers will see their livelihoods affected because they are not able to invest or compete, while at the same time the genetic pool is getting smaller, or privatised. This can have a substantial effect on food security.

Livestock gives rise to land grabbing and conflicts over land rights

Land grabbing by large private investors or foreign public institutions occurs across the globe and there are examples where land grabbing can be attributed to livestock production.²

A host of factors has recently prompted a sharp increase in investment in agricultural land in developing and emerging countries. These include the 2008 hike in food and fuel prices, a desire of food import dependent countries to secure food supplies, speculation on land and commodity price increases, and the search for alternative energy sources.¹⁹

Even though foreign investments in land might be beneficial to some rural communities, they can also severely undermine the rights of local people. When rights are not well defined, governance is weak, or those affected lack a voice, there is evidence that the buying up of land carries considerable risks for many, such as the forced relocation of local populations, reduced food security, loss of livelihoods and the loss of access to land for vulnerable people, and malnutrition.¹⁹

Large tracks of agricultural land that are only used for export production can have devastating effects on local communities. It is estimated that the expansion of soy production areas in Paraguay has caused the expulsion of 90,000 smallholders since the mid 1990s.² In one region of Paraguay 60% of the plots once held by smallholders is now in the hands of the large soy producers.²⁰

As proper regulation is lacking to secure local community access to their natural resources, the threats to food security, forests, and the rights of rural and indigenous communities to live on their land and feed themselves will persist.

Industrial livestock production blocks market opportunities for small farmers in developing countries

The rapidly growing markets for poultry, pork and dairy products are mainly supplied by large-scale intensive livestock operations that are based on internationally sourced animal feed. The traditional mixed family farms are often relegated to the informal market and gradually squeezed out as formal markets gain hold. Industrial farming benefits from considerable economies of scale. And rising capital intensity also means that labour requirements are declining substantially. As a consequence, dramatically fewer people will be able to earn their livelihoods with livestock farming, compared to the extensive traditional sector.⁸ And job opportunities in other sectors are often not available.

Although in some areas small producers could contribute to this developing market, the initial evidence suggests that as the industrial livestock sector develops, the small-scale producers exit the sector. Large transaction costs and an inability to compete with large-scale production typically block market access.²

Right to food

The right to adequate food and to be free from hunger is firmly established in international law, including the 1948 Universal Declaration of Human Rights (Article 25.1), the 1966 International Covenant on Economic, Social and Cultural Rights (Articles 11.1 and 2) and the 1989 Convention on the Rights of the Child (Article 24.1). By ratifying these legal instruments, states recognise their obligation to respect, protect, and fulfil (meaning to facilitate and – as a matter of last recourse – provide for) the progressive realisation of the right to adequate food. The right to freedom from hunger means that states have an obligation to ensure that, at the very least, people do not starve. To fully enjoy the right to food, people also need access to health care and education, respect for their cultural values, the right to own property and the right to organise themselves economically and politically.

Right to food demands a major transformation

It is clear that livestock farming needs a major reform to address the right to food of all citizens and to reverse its negative impact on livelihoods and the environment. Following international agreements, the right to food should be at the heart of our global food production system, yet the opposite seems true. In 2009 world hunger reached a historic high with more than 1 billion people who did not have daily access to food. Current global food production could feed the 6.3 billion people on earth if distributed equitably and based on a diet with only moderate amounts of animal products.²¹

The international community has failed to address the injustices in the food production system, resulting in a world where we produce more food than ever before and where there has never been more hunger. For too long the focus has been on increasing food availability, neglecting both the distribution impact of production systems and their long-term environmental impact. Increases in yields, while a necessary condition for alleviating hunger and malnutrition, is not a sufficient condition.²² As the negative impact of lifestyles in industrialised countries threaten the livelihoods of millions of people in developing countries, the right to food is not only an issue in the livestock production system itself, but also an ethical issue for all of us.

The impact of consumption patterns in industrialised countries and the potential positive effects of a transformation towards a more ecological, just and healthy lifestyle should therefore become an integral part of the reform of the livestock sector.

Solutions should focus on a three-pronged approach:

- Reducing the consumption of animal proteins in industrialised countries
- Reducing the impact of the livestock production system ('do no harm')
- Supporting smallholder producers to access markets and respecting labour rights



Soy expansion and slavery in Brazil

Slavery in soy production systems occurs mainly with deforestation and clearing activities in soy producing regions of Brazil. In these regions the number of cases of slavery has increased strongly over recent years, and continues to increase. In total, 52% of the slaves in Brazil are found in the 'expansion' and 'frontier' regions of soya production.²⁰

Towards a just and sustainable livestock system

Towards sustainable and just consumption in industrialised countries

Eating less animal protein in industrialised societies can contribute significantly to the challenges of reversing the negative impact of the livestock production system and improve the right to food.

Feed becomes food

By restraining global meat consumption to an average of 37.4 kg per person in 2050, we would free an estimated 400 million tons of cereals, enough to cover the annual needs of 1.2 billion people.¹¹

Less meat, less heat

A global change in food consumption to less meat can have a dramatic effect on land use, with millions of hectares of agricultural land abandoned, resulting in a large carbon intake by re-grown vegetation. Additionally, the emission of other greenhouse gasses (methane and nitrous oxide) will be reduced substantially.^{5,15}

Less meat to halt biodiversity loss

The pollution of fresh waters, degradation of soils and loss of forests and grasslands leading to biodiversity loss, is costing the world 50 billion euro a year in lost 'human welfare benefits' and has a major impact on the livelihoods of poor people. Some effects can be reduced by encouraging more moderate and healthier levels of meat consumption.²³

Towards a sustainable livestock production system

Global food markets function largely on price competition and lack incentives to produce food sustainably. As a result the negative impact is not included in the pricing of animal products, leading to unrealistically low prices for meat and dairy products at high social and environmental costs.

Internalising the externalities

The environmental and social impact of industrial livestock farming, such as climate change, biodiversity loss, land degradation, disruption of nutrient cycles, marginalisation of small producers and the unequal distribution of food, must become the integral focus of the livestock production system and its market.

Reform of the livestock sector should therefore incorporate the 'polluter pays' principle', from which sustainable and equitable forms of animal production will benefit significantly.

Sustainable consumption leads to sustainable production

Assuming a 40% increase in the global population by 2050, global meat consumption would need to fall to an average of 90 grams per person a day to stabilise current greenhouse gas emissions from the livestock sector. This would mean at least a 50% reduction in meat consumption in industrialised countries by 2050.²⁴

Right to food demands a transformation of livestock system

As public sector investments and policy have neglected the need for regulation of the livestock sector, we are currently facing significant negative effects.¹ Governments have failed to incorporate regulatory measures in the animal production system to ensure that agricultural production also addresses everyone's right to adequate food.²²

The right to food is acknowledged worldwide as a guiding principle in addressing global hunger, not as a question of production or availability only, but also as one of marginalisation, deepening inequalities and social injustice.

The adverse impact of the livestock production is likely to continue, unless public policy and investments in the sector change. Appropriate policies and effectively enforced regulations are needed to counter the negative impact on people and the environment.¹ The widespread environmental damage, social exclusion and threats to human health need to be addressed with a sense of urgency.⁸ Under the harsh reality of the current global crises a new form of governance and guidance is urgently needed.

Guidance with multi-stakeholder involvement

Global and complex problems, such as the negative impact of the livestock sector, are difficult to address by regulation alone. Global, sector, 'multi-stakeholder' initiatives, partially in response to a governance gap on sustainability issues, are *de facto* another kind of governance. Oxfam Novib believes multi-stakeholder initiatives can complement policies and regulations. They should however be accountable, transparent and democratic. Therefore proper mechanisms for civil society and affected stakeholders are key. Positive outcomes are to result at policy, practices and impact level, including improvements in sustainable livelihoods, protection of natural resources and access to markets.

Key recommendations

Actors involved in the agricultural and food sector should recognise their social and environmental responsibility. Oxfam Novib recommends that donors, national governments and private sector investors:

- Place agriculture centre stage. Ultimately, to reduce poverty, agriculture must once again become a top priority for governments and donors alike.
- Invest wisely in the livestock sector. Investments in livestock and livestock research for small producers need to be tailored to the conditions of specific locations, participatory, and demand driven.
- Ensure the *rights of the local population* are safeguarded and the *development needs* of the local population are prioritised when investments are made.

Multilateral institutions, such as FAO, should:

- ensure that international agreements regarding the livestock sector will be enforced;

Governments should:

- give FAO the mandate to develop an international guidance for the livestock sector;
- inform their population of what constitutes a healthy diet and encourage consumption of animal protein in line with those recommendations;
- levy a tax to put in practice the polluter pays principle.

In addition, national governments in developing countries must:

- build sustainable rural livelihoods;
- put in regulations the obligation to consult with farmers and their communities;
- strengthen labour rights;
- promote access to assets and services, particularly for women producers;
- carry out participatory zoning for proper land use;
- ensure companies fulfil their obligations and implement complementary pro-poor policies, ensuring the rights of the local population are safeguarded.

Businesses investing in activities producing animal protein should:

- comply with (sub) national laws and international agreements such as the Universal declaration of Human Rights, the conventions of the International Labour organisation and the Convention on Biological Diversity;
- secure the documented free, prior informed consent of all those (potentially) affected, based on a full social and environmental impact assessment of the activities;
- proactively secure minimally that local rights, including human rights, are not violated;
- secure local communities' continued access to the natural resources on which they depend;
- uphold farmers' rights, including livestock keepers' rights;
- mitigate the direct and indirect social impact of these activities.

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Oxfam Novib Discussion Papers are written to contribute to public debate and to invite feedback on development and humanitarian policy issues. They are 'work in progress' documents, and do not necessarily constitute final publications or reflect Oxfam's policy positions.

Who is Oxfam Novib?

Oxfam Novib, a Dutch NGO for development co-operation, is fighting for a just world without poverty. Oxfam Novib works together with people, organisations, businesses and governments, locally and internationally, in projects and lobby. Because poverty and injustice are global problems, related to unjust economic and political relationships. Oxfam Novib works in 60 countries with 860 counterparts.

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developing countries

The livestock challenge

developed countries

Increasing demand animal proteins



Industrial production systems

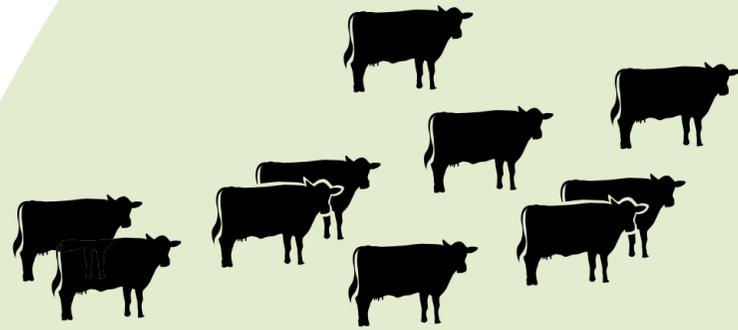


28 kg per person per year in 2002

We want more meat

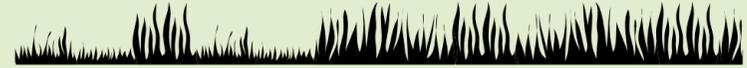
average consumption is expected to increase to 33 kg in 2015.¹

if the future population of 9 billion people adopts Western consumption levels of animal proteins, protein production has to triple.⁵



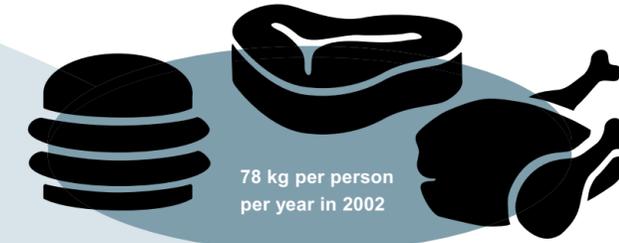
Large-scale cattle ranching

Grazing systems account for 8% of the global meat production.²



The production of meat is predicted to double from 229 million tons in 1999 to a total of 456 million tons in 2050.⁶ How can we feed a growing number of people and at the same time halt the depletion of natural resources and restore damaged ecosystems?

developing countries / developed countries

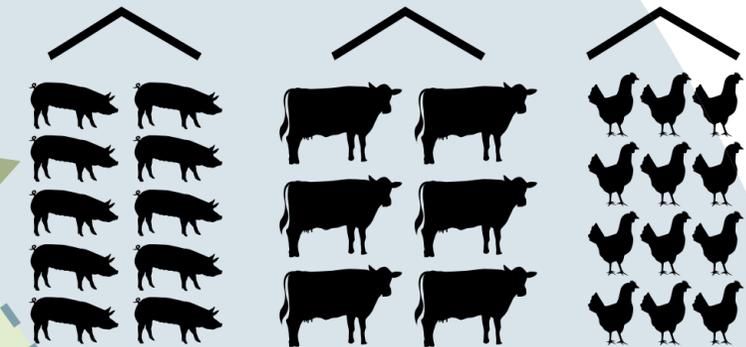


78 kg per person per year in 2002

We eat a lot of meat

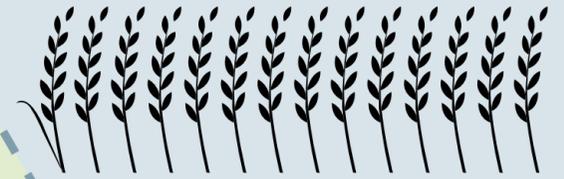
average consumption is expected to increase to 83 kg in 2015.¹

10% of the world population consumes 25% of the animal proteins available worldwide.⁵



Landless livestock systems

45% of the meat is produced by landless industrial animal production systems.²



The socio-economic impact of animal protein pro

Large-scale grazing

Livestock occupies over one fourth of the land surface of the planet, pasture and grazing lands, much of which is degraded.⁸

Large-scale production of animal feed crops

More than 35% of the global grain harvest is fed to animals.¹⁰ Livestock accounts for 8% of global water use, primarily for the irrigation of animal feed crops.¹²

Negative externalities



Deforestation

Livestock farming causes 30% of biodiversity loss around the world, mainly through the conversion of natural habitats to grazing pastures or cropland.²²

Cattle ranching is thought to be responsible for 80% of all deforestation in the Amazon region.¹⁷



Greenhouse gasses

Livestock farming is one of the major contributors to global warming contributing an estimated 18% of total greenhouse gas emissions.⁶



Disrupted nutrient cycle

Industrialised landless livestock farming systems interrupt the nutrient flows between livestock and land creating problems of nutrient depletion at the source and problems of pollution at the sink.⁹



Feed competes food

Even if livestock may not directly take food away from those who now go hungry, it does contribute to raising overall the demand and thus prices.⁹



Land grabbing

Land grabs occur across the globe. Examples already exist where land grabbing can be attributed to livestock production.²

Adverse impacts on livelihoods



Climate change

Climate change is already threatening the ability of entire regions to maintain current levels of agricultural production.²

Climate change results in physically destroyed, degraded or changed ecosystems. Floods, droughts and changed temperature patterns hit poor people disproportionately.²



Shortage of fresh water

The growth of industrial livestock systems further increases the demand for water for feed crop production.⁹

Already more than one billion people lack access to water fit for human use. It is estimated that by 2025 64% of humanity will be living in regions suffering water shortages.¹³



Biodiversity loss

The loss of flora and fauna threatens the environment's resilience and the ability of livelihoods to adapt.

The rapid spread of large-scale industrial livestock production focused on a narrow range of breeds leads to the marginalisation of traditional local breeds.¹⁸



No market access

Smallholders' market access is typically blocked by large transaction costs and an inability to compete with large-scale production.²



Right to food threatened

3 out of 4 poor people live in rural areas and depend on natural resources for their livelihoods.

In 2009, world hunger reached a historic high with more than 1 billion people who did not have daily access to food. At least twice that number lacks the essential micronutrients needed for leading a healthy and active life.²²

