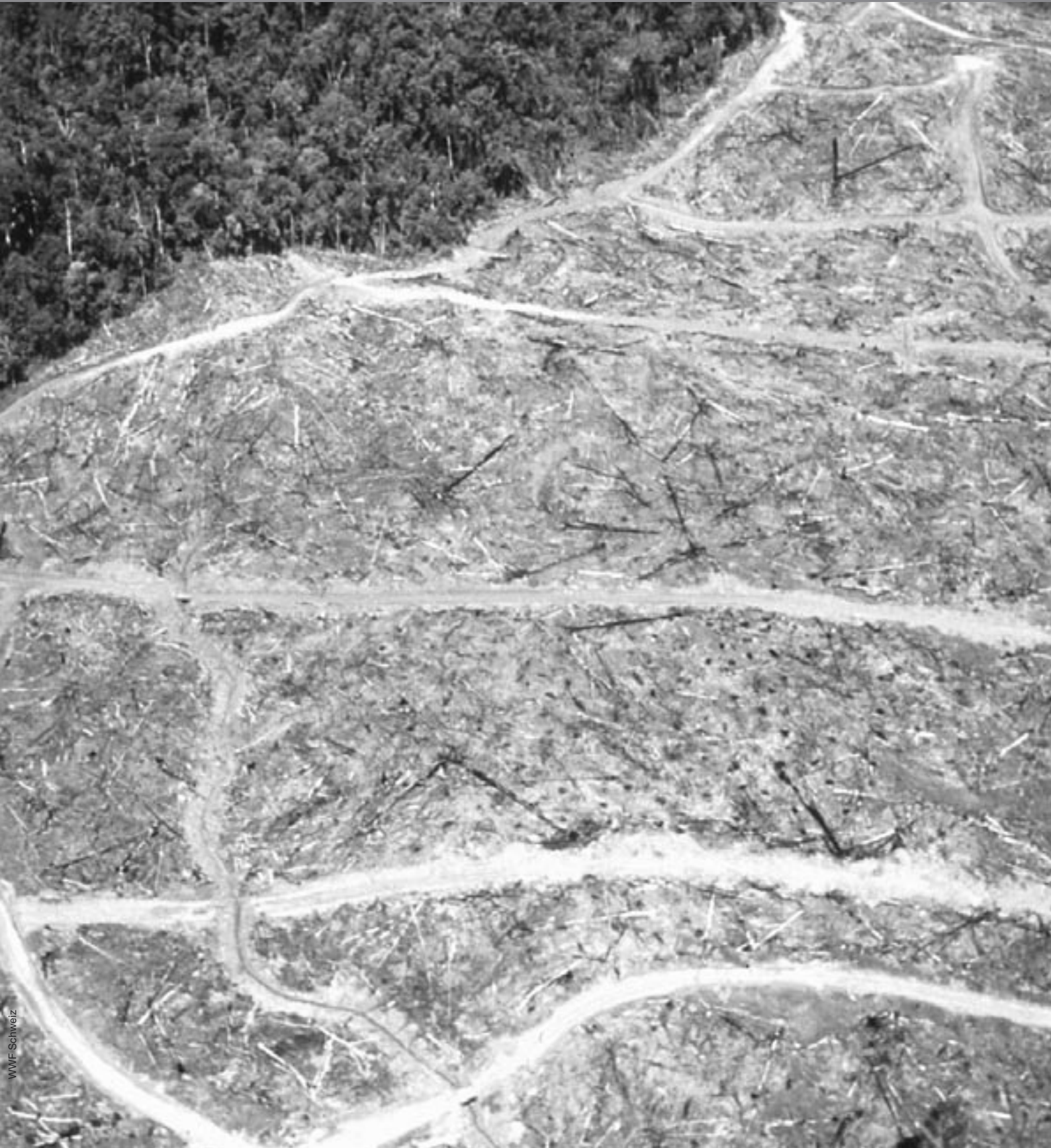




# Soy Expansion – Losing Forests to Fields



*Soy production in South America is booming - at the expense of forests. Already the Cerrado, the Brazilian Savannah with its rich plant and animal life, has had to give way to soy fields, and this expansion is threatening now the Amazon forests.*

Although soy oil covers a quarter of the world-wide demand for edible oils, it is in fact only a by-product. The main product is soy meal. This is rich in protein and therefore much sought-after as animal food. The growing demand for animal feed – and finally for meat – drives the production of soybean. Between 1993 and 2002 the global harvest rose from 115 million tons to 180 million tons. Although the United States, with its 41 per cent of global production, still occupies the highest rank amongst the producer countries, data from 2003 indicate that Brazil and Argentina have produced more than the USA alone.



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Soy field in Brazil.

### South America exports to Europe

The figures speak for themselves: While the USA increased its soy production by 46 per cent between 1993 and 2002, at the same time Brazil increased its production by 85 per cent and Argentina even by 172 per cent. The driving forces behind this are the exports to Europe. In 2001, 45 per cent of soybeans exported from South America went to the European Union (EU), in the case of soy meal it was even 62 per cent. Particularly Brazil's exports increased dramatically. Between 1995 and 2001 the soybean export shot up by 322 per cent. Three fifths of Brazil's exported beans ended up in the EU, for soy meal it amounted to 75 per cent.

Brazil's Minister of Agriculture calculates that in the next 10 to 20 years his country will overtake the soy production of the USA as rapid expansion is expected to continue. The expansion is occurring in the Cerrado and spreading into the Amazon. In 1940 there were only 704 hectares of soy fields, by 2003 there were 18 million hectares. At the same time, productivity rose from 651 kilos per hectare to 2720 kilos per hectare, thanks to new varieties, fertilisers and other intensive agricultural management practices.

### Habitat for 130000 animal and plant species replaced by soy fields

Half of Brazil's soy production comes from the Cerrado. This is the savannah with the greatest biodiversity in the world. With an area of 200 million hectares

it covers 23 per cent of Brazil – an area as large as the whole of Western Europe. This unique habitat features wide stretches of grassland and scrub divided by areas of woodland and so called gallery forests along water courses and rivers. Approximately 90.000 insect species, 40.000 fungi, 550 kinds of birds and 150 mammal species – for example the jaguar – live in these regions. This rich habitat is being replaced by monotonous soy fields.

### A lot of chemicals, less and less soil

To control pests and diseases, and to maintain the fertility of the intensively used soil, pesticides and fertilisers are sprayed in large quantities. These not only pollute the water and the soil, but also present a growing danger to people. In 1993 about 300000 people were poisoned by pesticides and suffered damage to their health. The use of herbicides against weeds is always on the increase.

Previously the weeds were mostly dealt with by mechanical methods, as with heavy tractors, but this has favoured erosion.

Every year, Brazil loses 55 million tons of soil through erosion. This loss in fertile soil is compensated for by producers by applying correspondingly large amounts of fertiliser. In addition, along with the soil which is washed into the water courses are the chemicals which have been sprayed.

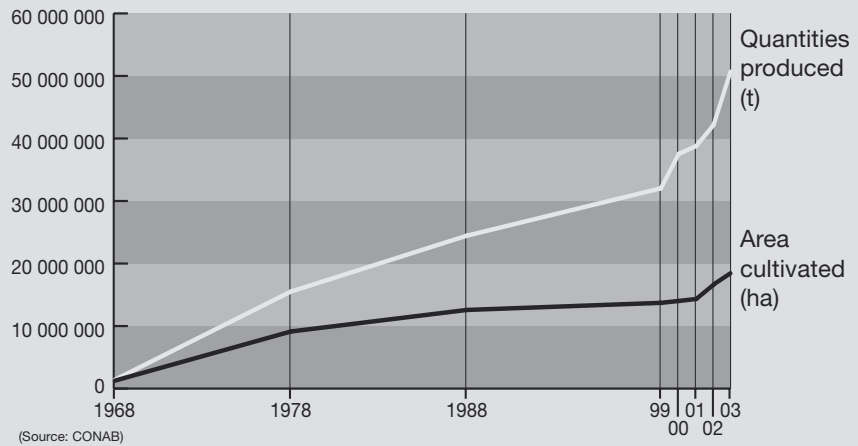
A soy field in the Cerrado loses approximately 8 tons of soil per hectare.

**16 per cent of the Amazon forest has already disappeared**

Brazil is losing its soil, and above all, the small farmers are losing their land. They are pushed out by the big producers and must move further and further into the Cerrado or even into the Amazon forest, which covers 60 per cent of Brazil. Latest figures show that the yearly loss to the Amazon forest has increased by as much as 40 per cent in the year 2002 – mostly for cattle raising and agricultural fields, specially soy cropping. 16 per cent of the whole Amazon forest has already disappeared and every day, another 7000 ha of forest is lost – a surface of 10 kilometers by 7 kilometers.

WWF is cooperating with relevant actors to set up a roundtable discussion on sustainable soy production. Together, ecological and social solutions may be found which will minimise the negative effects of the soy production. The animal feed and meat industry in Europe has a great responsibility, as do internationally engaged financial institutions and banks and the four biggest production and processing concerns: Archer Daniels Midland (ADM), Bunge and Cargill from the USA and Louis Dreyfus in France.

**Brazil: Increase in area cultivated for soy and in quantities produced**



**The largest soybean producers, 2002**

	Million tons	Share of World production	Growth 1993 to 2002
Argentina	30,0	16,7 %	172%
Brazil	41,9	23,3 %	85%
United States of America	74,3	41,3 %	46%
<b>World</b>	<b>179,9</b>	<b>100 %</b>	<b>56%</b>

(Source: FAO)

**Export markets of South American soybeans, 2001**

	Million tons	
EU	10,6	45%
China	8,2	35%
Japan	0,8	3%
Thailand	0,8	3%

(Source: Oil World ISTA Mielke GmbH)

**Export markets of South American soy meal, 2001**

	Million tons	
EU	16,8	62%
Thailand	1,1	4%
South Korea	0,9	3%
Egypt	0,8	3%

(Source: Oil World ISTA Mielke GmbH)

## The position of WWF

WWF recognises that soy oil and soy meal are in great demand world-wide, and that in the producer countries they are an important source of foreign currency and do create employment and infrastructure opportunities. At the same time, WWF is concerned about the important ecological costs and social problems caused by the cultivation of soy, in the form of clearances, poisoning of the atmosphere, the water and the soil by excessive use of chemicals, wide-spread demand on transportation systems and industrial plants, and the disregard for the rights and interests of the local population.

### According to WWF, the following points should be respected in the future:

- No conversion of high conservation value forests or other vital habitats.
- Use of cultivation methods which minimise the use of chemicals and reduce erosion.
- Avoid genetically modified soy.
- Respect traditional rights of local communities.
- Develop long-term sustainable livelihood alternatives for people negatively affected by soy expansion.
- Integrate soy production into a mosaic of other land uses (protected areas, other natural areas, restoration and production areas) based on a land-use plan negotiated and agreed with stakeholders.
- Enforce public policies to make producers and traders responsible for mitigating negative environmental and social impacts of soy production.



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The goal of WWF's Forest Conversion Initiative is to ensure that High Conservation Value Forests and habitats of key species in focal ecoregions are no longer threatened by the expansion of oil palm and soy.