

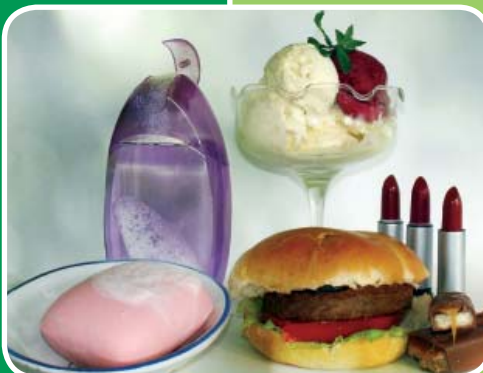


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Oil palm, soy and tropical forests: a strategy for life



Between 2000 and 2006, the area harvested for soy and palm oil globally increased by almost 22 million hectares—an area twice the size of Cuba¹. Today this expansion continues unabated, and in many places is occurring at the expense of natural rainforests and the people who depend on them to survive.



Why is this happening? A massive demand for soy and palm oil, which are used in a wide range of everyday products including animal feed, margarine, ice cream, cosmetics, detergents and biofuels, is driving these trends. And now, agricultural expansion is a much more serious threat to forests than timber trade.



There are solutions to deal with the environmental problems caused by these crops. Companies, investors, governments and consumers should encourage soy and oil palm cultivation that protects the environment and people's livelihoods. By asking for and purchasing responsibly produced palm oil and soy products where they are available, we can all help to transform the market and reduce carbon emissions due to forest loss that contribute to climate change.

Soy and palm oil in daily life

Soy

What's the connection between the sandwich you're eating and Latin America's tropical forests? Look no further than one of the world's most popular crops—the soy bean.



If there's meat in your sandwich, it probably came from animals fed with soy meal. The sandwich might also be spread with margarine made from soy oil, the world's most popular vegetable oil. And nowadays many breads sold in supermarkets contain some soy or palm oil.

To a lot of people, soy is only familiar as a substitute for meat and dairy products and as soy sauce. But nearly 80% of the soy produced ends up as fodder for animals.

Eating the land

Increasingly, like oil palm in Asia, soy is grown on vast swathes of recently cleared land in South America. On average, each European eats 87 kilograms of meat and 250 eggs a year. To produce this, a soy agricultural "footprint" of about 400 m² is needed. That's a soy field the size of a basketball court for every European consumer—every year.

Soy consumption on the rise

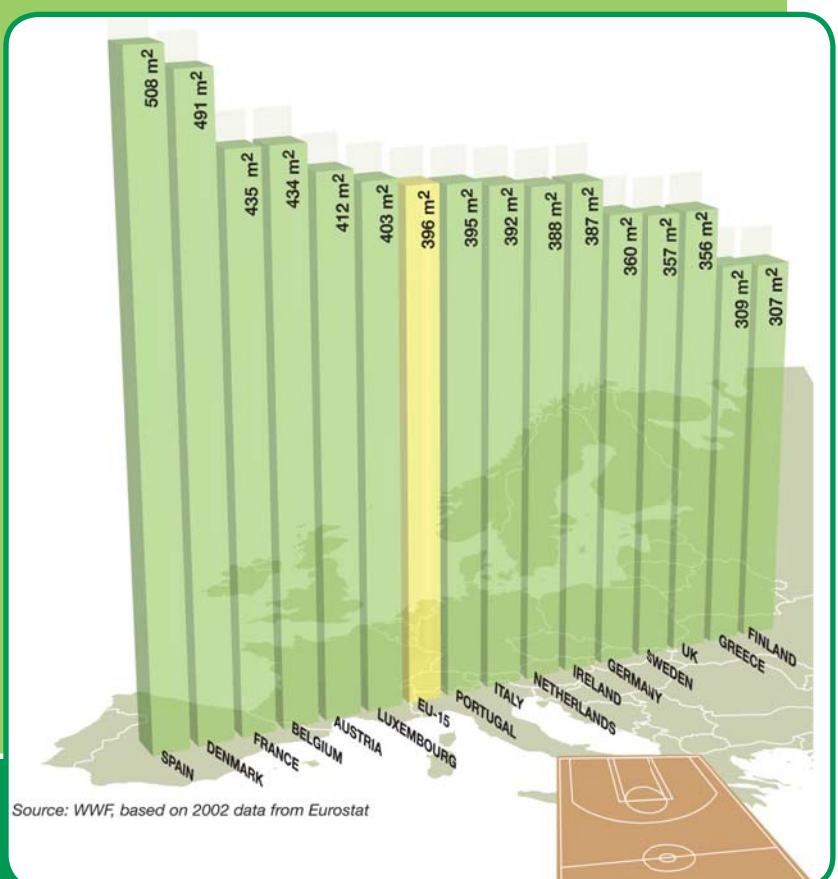
Meanwhile, soy consumption in China and India is soaring to new heights. From 2002 to 2008, meat consumption in China rose by 85%. The result? Ten years ago China was a soy exporter. Now, it is the single largest importer in the world, placing new pressures on forests.

But it's not only demand for cattle fodder that is driving the expansion of soy plantations. As governments around the world set new targets for using biofuels made from agricultural products like soy, there is a serious risk of food price increases, and displacement (bioenergy production displacing agricultural production and pushing it into other areas, including forests).

Meat needs soy

Required soy area per capita based on meat and egg consumption

On average, Europeans eat 87 kg of meat and 250 eggs per person per year. To produce these, the annual soy yield of an area the size of a basketball court (approx. 400 m²) has to be fed to pigs, cattle and chicken (poultry).



Palm oil

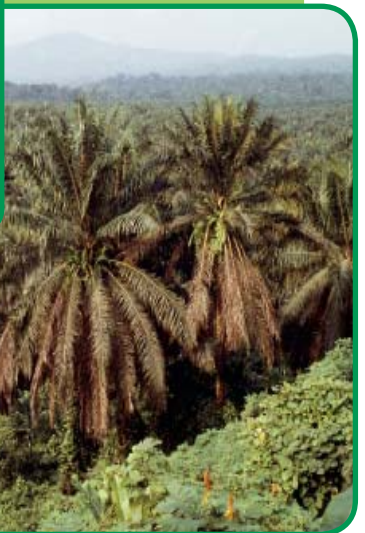
Like soy, the increasing demand for palm oil is posing a grave risk to tropical forests. The good side of palm oil is that it is a highly efficient use of land for oil production comparable to other crops. However new plantations are still being established on cleared forest land.

Palm oil is used all over the world in processed foods like chocolate bars, ice cream, ready-to eat meals and margarine. Palm oil derivatives are also found in cosmetics, soaps, shampoos and detergents.

Global demand for palm oil continues to grow. And as the market expands, so does the quantity of forest land that is scrapped to make room for oil palm monocultures.

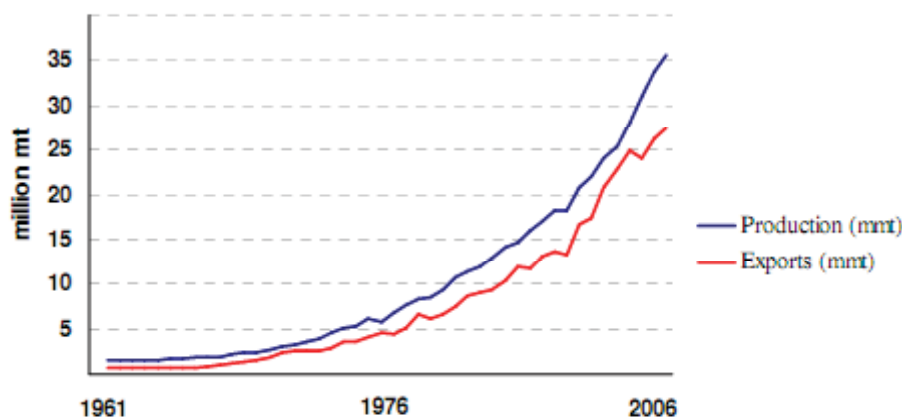
Complicating the story is the growing popularity of biodiesel, which can be produced from palm oil. With many countries setting biofuel targets for national transport and energy needs, traders and producers are receiving strong signals that they should be growing more oil palms².

The industry is rushing to meet that demand, including in forest areas where endangered orang-utans have their last stronghold.



The palm tree originated in West Africa but it has been planted successfully in many tropical regions. Now, the world's largest exporters of palm oil are Malaysia and Indonesia, two countries with large, biodiversity-rich forests.

Oil palm plantation © WWF-Canon / Mauri Rautkari



Source: FAO stat

Climbing to new height
Global palm oil production and trade in million metric tonnes (mnt)³

Tropical forests in peril

People find it hard to imagine a world without rainforests. But they are being cleared at a frightening rate: an estimated 13 million hectares of natural forest is lost annually (36,000 hectares per day), equivalent to an area over three times the size of Paris (metropolitan area).⁴

While many people think that illegal logging is the main culprit behind forest loss, the main reasons are mining, roads, construction and agriculture. Often forests are cleared through a process of gradual forest degradation. This may begin with the removal of valuable timber as a first step followed by a slow transformation to other land uses such as plantations, crops, pasture, industry or urban settlements.

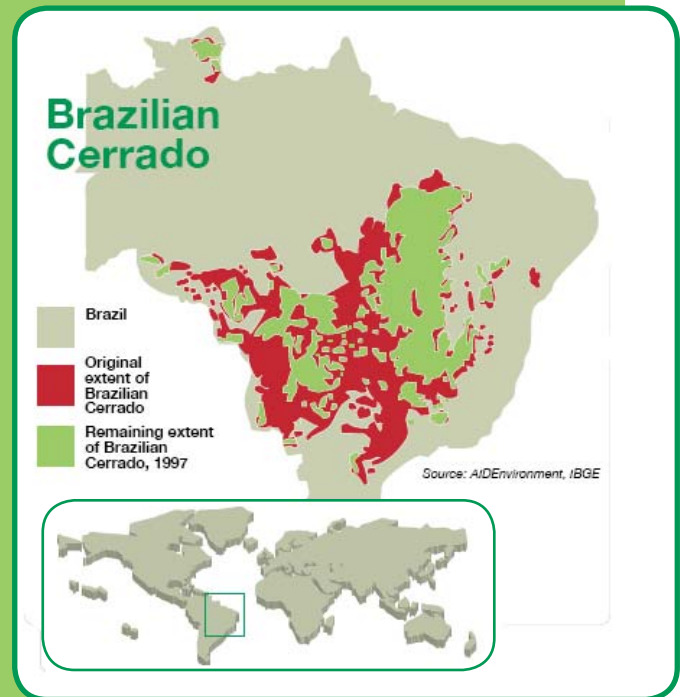
Losing much more than just trees

From the canopy of tropical forest all the way down to the tangled roots thrives a world of astonishing animals and plants. A perpetually warm, wet climate promotes vigorous plant growth; a tree may reach more than 25 m in height in just five years.

It is in places such as the Amazon Basin, the African Congo Basin and the Indo-Malayan Archipelago that these forests are the most remarkable, providing a home for endangered wildlife including elephants, rhinos, tigers, jaguars, gorillas, orangutans and other species.

Forests are amongst the most diverse and valuable ecosystems around the globe. They offer watershed protection, timber and other products, along with a wide range of recreational opportunities. They also prevent soil erosion, help maintain the water cycle and limit global warming.

An estimated 1.6 billion people worldwide rely on forests for their livelihoods, with 60 million indigenous people depending on forests for their subsistence.



People and endangered wildlife with nowhere to go



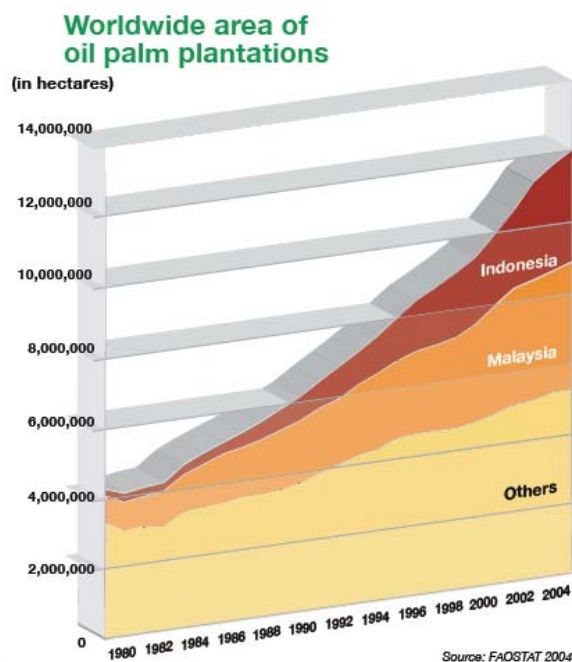
Elephant in somebody's backyard; WWF, Marino

The conversion of forest to oil palm and soy plantations is an issue of concern, as the areas where it's easiest to grow these crops often harbour the most biodiversity. Forest loss is leaving endangered species such as elephants, tigers and orangutans with nowhere to hide, exposing them to the risk of poaching and increased conflict with humans. Many scientists have predicted the imminent extinction of the orang-utan if forest conversion is not stopped.

People that depend on forests are just as vulnerable to forest conversion. Even where they have land titles to prove their ownership, very often they are evicted by plantation companies—sometimes, violently so. Other times, they are offered trivial compensation for their land.

Oil palm and soy plantations also provide jobs and foreign exchange. But they are often criticised for bad working conditions, sometimes amounting to forced labour, and for agricultural practices that cause soil erosion and pollution.

Vast plantations where once stood majestic forests



In Indonesia and Malaysia, over 50% of the palm oil plantations established between 1990 and 2005 were created at the expense of natural forests (almost 2 million hectares)⁵. Most of the lowland rainforest on the Indonesian island of Sumatra has been lost, including large areas cleared for oil palm plantations.

Recently, millions of forest hectares have been converted to soy plantations in Argentina's Gran Chaco and Brazil's Cerrado region. These are savannas with the highest biodiversity in the world, home to many animals that live only in South America, like the anteater, jaguar and maned wolf.

As China and the US—two other soy producers—have little arable land in reserve, future demand for soy is likely to be met primarily by Argentina, Bolivia, Brazil and Paraguay.

Worldwide, deforestation is responsible for around 20 % of overall human induced greenhouse gases emissions.

Bioenergy from soy and palm oil? A mixed picture

Visions of vehicles all over the world running on “green fuels” have been dashed lately. An increase in production of soy and palm oil for biofuel could expose the world to the risks of food shortages, price increases and even increased greenhouse gas (GHG) emissions. Moreover, the need for biofuel could create new incentives to push agricultural production much deeper into natural forests.

For WWF, biofuels have a role to play in providing sustainable energy for the future, as they can contribute to a reduction of the GHG that impact on global temperatures—and hence on climate change. But for this to happen, biofuels must be produced according to agreed criteria for sustainable production. Production of biofuel from these commodities must result in a positive GHG balance, including GHG emissions associated with land clearing to establish the crop fields, and the refining process that transforms the crop into a fuel.

Why? Because clearing forests to plant palm oil or soy—a common, yet often illegal practice—releases huge amounts of GHG into the atmosphere, negating any benefit from cleaner-burning fuels.



Swamp forest, Indonesia © WWF-Canon / Mauri Rautkari

Orchids, Brazil © WWF-Canon / Michel Gunther

A Yanomami Indian weaves traditional basketry, Amazon, Brazil © WWF-Canon / Nigel Dickinson

Soy, palm oil and climate change are all connected

By storing carbon, peat swamp forests play a vital role in moderating climate change. But when they are disturbed or burned, they release carbon back into the atmosphere. By draining and converting peatland forests for plantations, palm oil companies contribute to climate change, as these “carbon sinks” store more carbon per unit area than any other ecosystem in the world. GHG emissions released from peatlands could rise by at least 50% by 2030 if they keep being destroyed for plantations and other land uses⁶.

The conversion of forests to soyfields is also threatening the climate. This is particularly true when soy expansion threatens the Amazon forests. Although soybean fields have directly replaced relatively few forested areas of the Amazon, their expansion in the surrounding areas drive up land prices and push other less profitable farming practices, like ranching, into these forests, causing deforestation. As Amazon forests contain 90 to 140 billion tons of carbon, equivalent to 9 to 14 years of global human induced GHG emissions, the risks of their deforestation to the climate are considerable.

Soy cultivation by numbers...

- Soybean production doubled in Brazil and Paraguay between 1996 and 2006⁷
- In 2006, Brazil's soy fields totalled 22.1 million hectares, an area about the size of the United Kingdom⁸
- More than half of the soy exported from South America goes to the European Union, while China increased soy imports 5 times from 2000 to 2007 (1.9 million tons to 10.5 million tons)⁹

Oil palm cultivation by numbers...

- Malaysia and Indonesia dominate the global market for palm oil, accounting for almost 90% of all exports¹⁰
- Between 1990 and 2005, Indonesia and Malaysia increased the area of palm oil by nearly 5 million hectares, half of which replaced natural forest¹¹
- Compared to 2000, demand for palm oil is predicted to more than double by 2030 and to triple by 2050¹²
- Palm and soy oils together constitute around 68% of the global edible oil trade volume¹³



Atlantic Forest cleared for soy cultivation in San Rafael, Paraguay © WWF-Switzerland/Heinz Stalder

Soy & palm oil production: a better way

The market forces that are fuelling the growth in soy and palm oil production show no signs of slowing down. Well managed, these industries can continue to provide social and economic benefits without threatening some of the world's most breathtaking natural treasures, such as the Amazon.

WWF is reaching out to all the major actors that are shaping the soy and palm oil industry globally, including producers, processors, traders, retailers, financiers and non governmental organizations.

A milestone in this direction is the Basel Criteria for Responsible Soy Production, a set of standards that address several issues such as legal compliance, environmental performance, forest conversion and workers' rights. Another big step forward is the availability of certified palm oil, produced according to strict environmental and social criteria developed after consultation with many stakeholders.

The oil palm sector must not necessarily grow at the expense of forests. By increasing yields through better management practices, palm oil companies can reduce production costs and avoid problems such as land disputes.



Jaguar © WWF-Canon / Anthony B. Rath

In Paraguay, some breathing space for the Atlantic Forest

In December 2004, the Forest Conversion Moratorium Law (also called the Zero Deforestation Law) came into force in Paraguay. The moratorium has been successful in curbing deforestation for the first two years of its existence, and has been extended to December 2008.

Despite the moratorium, soy production has actually increased in Paraguay. This shows that Paraguay can increase its soy production without clearing forests.

However, the remaining forest fragments in Paraguay are extremely isolated and degraded, and need time to recover. Therefore WWF continues to lobby for a further extension of the moratorium.

Considering the challenges to sustain a moratorium, WWF promotes economic alternatives such as payments for environmental services. Through these mechanisms, land owners whose ecosystems provide services to the community (like freshwater) receive benefits, while those who have illegally converted forest will pay the consequences.

Responsible soy and oil palm, a natural role for WWF

From farms to international fora, from governments to private companies, and from financial institutions to civil society organisations, WWF is working towards a vision of sustainability for palm oil and soy production.

Better production

- Developing **better production practices** that reduce the environmental and social impact of soy and palm oil
- Identifying **areas that should be zoned out of production** or protected in some other way due to their high conservation value, while encouraging the establishment of **production areas on available degraded lands**
- Supporting the development of a **greenhouse gas accounting system for palm oil** to be used for power generation or as a fuel

Improving policy

- Calling for **transparent land-use planning processes** to achieve an optimal distribution of natural forests, plantations, agricultural areas, urban areas and other land-use
- Helping **remove incentives** for soy production that impact on natural ecosystems

Transforming markets

- Promoting **responsible purchasing and investment policies** in the sector
- Conducting **seminars for companies that buy these commodities** so that they can procure them more responsibly

Responsible consumption

- Inviting consumers (especially in developed countries) to **choose products made from responsible soy and palm oil** and reduce consumption of products that are made irresponsibly

Promoting environment-friendly palm oil production in Colombia

In collaboration with Fedepalma, the Colombian palm oil growers' association, WWF and partners have been promoting the adoption of the Roundtable on Sustainable Palm Oil's (RSPO) principles and criteria for sustainable palm oil production within the industry. In essence, this effort is all about helping the palm oil sector understand the benefits and process of making its production more environment-friendly. Fedepalma is aiming for 50% of Colombian palm oil to be RSPO-certified by 2010.



Responsibly-grown soy, healthy animals...

Products compatible with the environment and animal well-being are bestsellers in the supermarkets of the Swiss retailer Coop. For example, 76% percent of pig meat meets strict environmental and ethical criteria.

A logical step for Coop was to extend sourcing criteria to soy-based animal feed. In collaboration with WWF-Switzerland, Coop elaborated what have become known as the Basel Criteria for Responsible Soy Production. Together with the Swiss feed industry, Coop aims to source more and more soy for animal feed according to the Basel Criteria.

Room for oil palms and elephants in the Corridor of Life

Natural corridors for wildlife. Reforested areas. Elephant rescue teams... In the Corridor of Life region of Kinabatangan (Borneo, Malaysia), some oil palm plantation companies are taking the opportunity to become better stewards of the area's outstanding habitat and wildlife—without foregoing business priorities.



Asian elephants, Malaysia © WWF-Canon / Gerald S. Cubitt

Already, plantation owners have voluntarily set aside 1,200 hectares for wildlife corridors, with some help from WWF. These areas now allow species such as elephants to move around without damaging the plantations or encountering humans—which usually creates disastrous results for both species. Meanwhile, companies are also reforesting other areas, with WWF advising on planting techniques and types of trees to use.

One palm oil company has regularly helped out in small but significant ways in elephant rescues. Sometimes it's an injured female that needs medical treatment. At other times, it's a stranded calf that requires immediate relocation to a safer area. By providing equipment and assistance to WWF's patrols and monitoring teams, this firm is not merely helping protect the Kinabatangan's pachyderms—it's proving that with some care, the palm oil industry does not need to grow at the expense of biodiversity.

"The Body Shop International is fully committed to the use of sustainable palm oil, having taken a leading role on the global Roundtable on Sustainable Palm Oil (RSPO). In June 2007 we took a landmark step forward by becoming the first global cosmetics company to source and introduce sustainable palm oil into our soaps, sourced from Colombia, equating to the manufacture of over 9 million soaps per year."

Steve Noble, Head of Sourcing, The Body Shop International

"Sustainable working methods are vitally important. Campina therefore looks beyond today, towards tomorrow. That's one of the reasons we reached agreement with World Wildlife Fund on an initiative designed to encourage responsible production of soy."

Eric Heres, Director of Corporate Communication, Campina

"We are fully committed to only using certified sustainable palm oil in all of our products. Our customers expect us to ensure that the world's natural resources are protected for future generations. With certified sustainable palm oil now on the market, we are working with WWF to address critical work on the ground in the Heart of Borneo."

David Gregory, Director of Technology, Marks and Spencer

A roundtable approach

Sustainability in the soy and palm oil sector can only be achieved if everyone involved works together.

Providing an arena for just such cooperation, WWF has been instrumental in the creation of the roundtables on sustainable palm oil (RSPO) and responsible soy (RTRS).

These roundtables bring together social and environmental organizations, producers, processors, manufacturers and retailers, where criteria are set for responsible production and how they can be implemented.

WWF asks the palm oil and soy industries, from producers to retailers, to:

- Acknowledge the problems related to the expansion of palm oil and soy, including those related to greenhouse gas emissions
- Join the roundtable processes
- Begin a step-by-step and transparent approach to responsible production or procurement

Responsible production includes:

- Protecting forest areas of high conservation value and not converting them to oil palm or soy plantations
- Assuring participation and transparency in land-use planning
- Applying better management that helps to conserve biodiversity in and around plantations
- Respecting land rights and safeguarding the well-being of employees and local communities
- Complying with the law

RSPO

Roundtable on Sustainable Palm Oil

From a modest beginning in September 2002 with a meeting of 6 palm oil producers, traders and retailers, the RSPO has grown to a global non-profit membership organization dedicated to sustainable palm oil. The RSPO, a multi stakeholder organization involving the entire supply chain for palm oil (along with NGOs), approved a set of standards for the sustainable production and use of palm oil in 2005. As certified sustainable palm oil becomes available on the global market, WWF is working alongside other stakeholders in the RSPO to promote its production and use.

See www.rspo.org

“Unilever intends to have all of its palm oil certified sustainable by 2015. We will start by using certified palm oil as it becomes available in the second half of 2008, and will look to have all the palm oil we use in Europe fully traceable by 2012.”

Jan Kees Vis, Sustainable Agriculture Director, Unilever, member of RSPO

RTRS

Round Table on Responsible Soy Association

The Round Table on Responsible Soy met for the first time in Brazil, in March 2005. Never before had such a wide range of people—from small farmers to agribusiness—met to debate social and environmental responsibility in the soy sector. As its membership grows, the RTRS is moving steadily toward its immediate goal of developing a globally accepted standard for economically viable, socially equitable and environmentally sustainable production, processing and trading of soy by May 2009. This is being achieved through a transparent, multi-stakeholder participatory process.

See www.responsiblesoy.org

“Sustainability is an increasingly recurrent theme in the agendas of the various productive chains. It has to be treated in an integrated manner, with representatives from the different sectors, if the search for solutions is to be successful.”

Afonso Champi, Director of Corporate Affairs, Cargill Agrícola S.A., Member of RTRS and Soya Moratorium

About WWF

WWF is one of the world's largest and most experienced independent conservation organizations, with almost 5 million supporters and a global network active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by:

- conserving the world's biological diversity
- ensuring that the use of renewable natural resources is sustainable
- promoting the reduction of pollution and wasteful consumption.

WWF's Forest Conversion Programme

Part of WWF's broader "Market Transformation" Initiative, WWF's Forest Conversion Programme works toward a world where the production of palm oil and soy no longer causes significant habitat conversion or biodiversity loss and responsible production of these commodities contributes positively to local economic and social development.

Forest Conversion Programme

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To find out more about forests, soy and palm oil, subscribe to the Forest Conversion News, edited by WWF International. To subscribe, please send an email to: info.conversion@wwf.ch

For more information visit www.panda.org/forests (click on Forest Conversion)

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