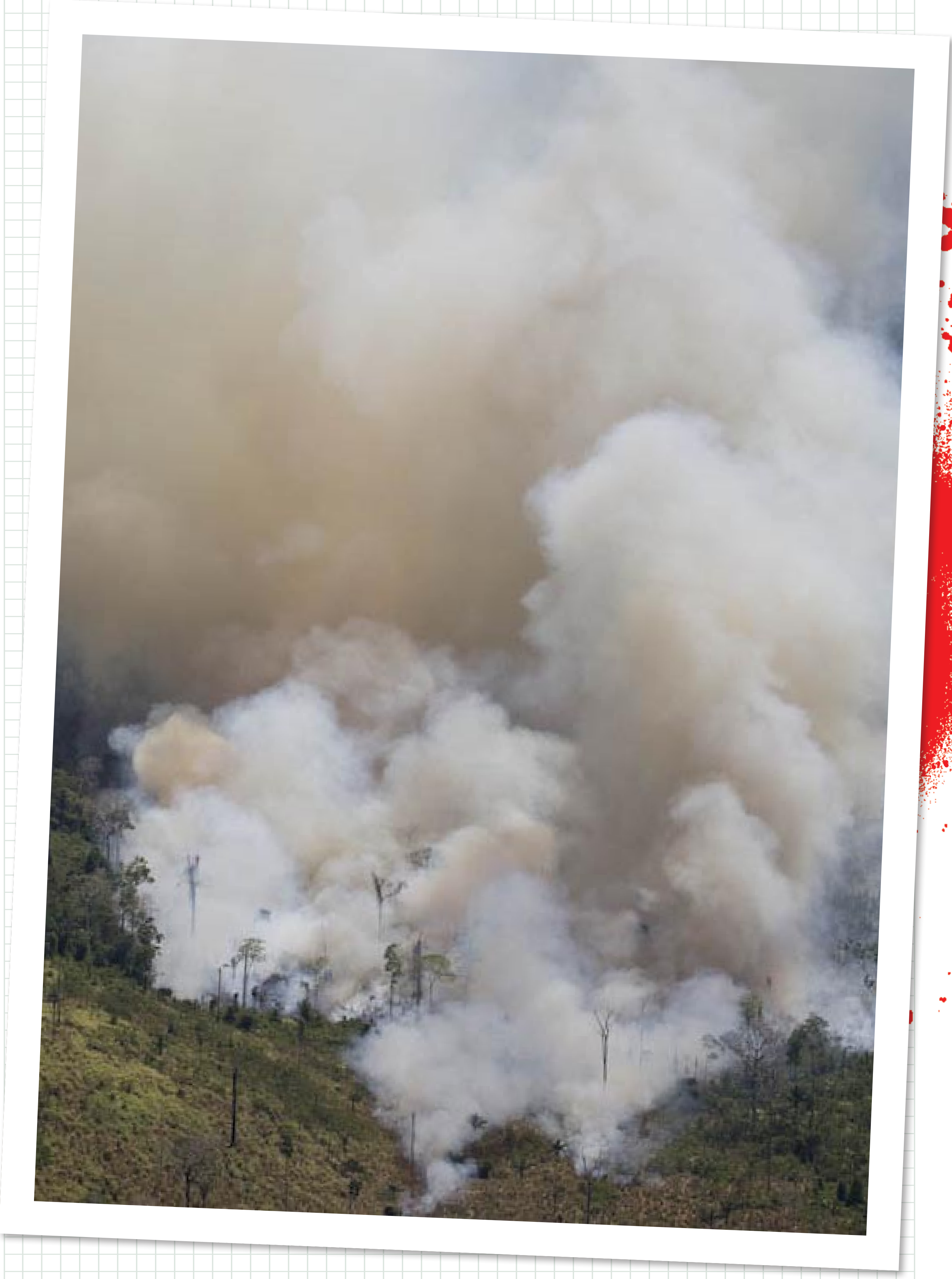


TIME FOR ACTION

‘Brazil does not wish to shy away from its responsibilities.’

President Lula, The Guardian, 1 June 2007

TIME FOR ACTION

IN CONCLUSION:

WHAT KIND OF WORLD LEADER IS BRAZIL?

'The fight against deforestation is a central plank of our Action Plan Against Climate Change. It outlines clear targets for reducing illegal deforestation in the Amazon – a 72% cut by 2018. Brazil will thus prevent the emission of 4.8 billion tonnes of carbon dioxide.'

President Lula, The Guardian, 28 March 2008

'Private companies in developing countries can play a significant role in combating climate change.'

IFC, 'IFC promotes climate-friendly investments' November 2006

'Now is the time to reduce pressures on tropical forests through a comprehensive framework that integrates sustainable forest management into the global strategy for mitigating climate change and preserving biodiversity […] In areas beyond the agricultural frontier, such as the Amazon, […] quick action to head off the social and environmental impacts of future agricultural expansion is the main challenge.'

The World Bank, 'World Bank advises better forest governance and use of carbon markets to save tropical forests' 23 October 2006

PART OF THE PROBLEM OR PART OF THE SOLUTION?

Brazil presents itself as a global leader on action to cut deforestation. At the 2008 international climate summit in Poznàn, Poland, the Brazilian government announced its National Climate Change Plan, including a pledge to pursue 72% cuts in the rate of deforestation by 2018, largely by tackling illegal deforestation, which it claims will prevent the emission of 4.8Gt CO_2.[541]

However, the Brazilian government is a funder and shareholder in the major players in the cattle sector in the Amazon[542] – the single largest driver of global deforestation. The Brazilian government has over $2.5 billion in shares in global beef and leather processors who profit from the cheap supply of cattle reared on areas of the Amazon that have been illegally destroyed. Projected growth in exports over the next decade is set to create further pressure on the region.

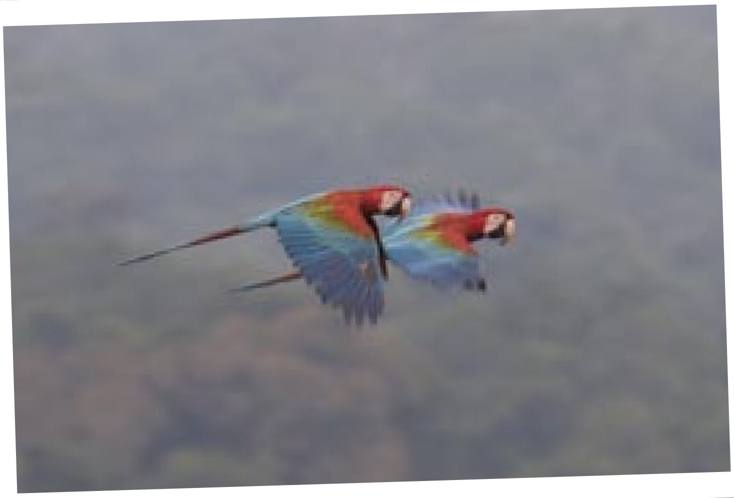
Additionally, legislation before the Brazilian Congress seeks to grant land grabbers legal property rights[543] and to more than double the percentage of forest that can be cleared legally within a property.[544] Rather than cutting deforestation rates, this will lead to increased legal deforestation.

Brazil is not alone in driving Amazon deforestation. Nor can it take sole responsibility for fixing the problem.

The World Bank identifies the economic drivers of deforestation at the 'agricultural frontiers, such as the Amazon' as the major challenge in terms of action on climate.[545]

Given the global trade in agricultural commodities driving deforestation, considerable responsibility for action lies with Blue Chip corporations behind reputable global brands whose blind consumption of raw materials in their supply chain fuels deforestation.

Further responsibility for supporting a shift away from high carbon activities lies with multilateral institutions such as the World Bank itself, whose private lending arm, the International Finance Corporation (IFC), has financed expansion by Bertin at the 'agricultural frontier' of the Amazon rainforest destruction.



FUNDING FOREST PROTECTION IS KEY TO MEETING THE CLIMATE CHALLENGE

Brazil is clear that its ability to reach its target on reducing deforestation depends on the provision of international funding from rich countries. To this end, the government established an Amazon Fund.[546] Brazil needs to raise $21 billion for the fund by 2020 ($2 billion a year),[547] but current totals are far short of this goal. In 2008, only $110 million was made available – the government of Norway having announced a donation of $1 billion to the fund, to be paid by instalments until 2015. As of the end of March 2009, Germany is the only other donor to the fund, announcing a contribution of €18 million ($24.7 million).[548]

As the Carbon Disclosure Project (CDP) – a partnership of many of the Blue Chip companies identified in this report– has concluded: 'It is only through collaborative global action which takes the long-term view'[549] that the climate challenge will be met.

Halting global deforestation is key to meeting this challenge.

Part of the global deal to protect the climate must be to get an agreement to provide long term funding for the protection of the world's rainforests.

Currently, industries in Europe and the USA are issued permits giving them allowances for a set amount of emissions, eg from manufacturing or fossil fuel energy generation.

Following the principle that the polluter pays, Greenpeace proposes that companies should pay for a portion of their GHG emissions permits. Revenues generated would go to a Forests for Climate fund to provide financing for developing countries to protect forests.[550] This fund would provide economic incentives to tackle deforestation and put a value on standing forests. It would reward countries with verified reductions in deforestation rates. The fund would be targeted at forest areas with high biodiversity values and at creating and preserving sustainable livelihoods for forest communities as a long-term means of forest protection. As the fund would be open to all countries with vulnerable forests, it would prevent leakage – the shifting of deforestation by global industries from one forest region of the world to another.

The current global economic downturn, collapse in agricultural commodity prices and the resultant fall in deforestation rates in the Amazon is a once-in-a-lifetime opportunity for Brazil and the international community to support a truly visionary recovery based on zero deforestation, carbon neutral industry and a transition to a limits-to-growth development model.

In December 2009, world governments will meet for climate negotiations in Copenhagen, Denmark. The Copenhagen Climate Summit is the key political opportunity for world governments to take responsibility for tackling climate change and agree drastic GHG emissions reductions commitments under the next phase of the Kyoto Protocol, which comes into effect in 2012.

The devastating example of the destruction of the Amazon rainforest outlined in this report is just one of the tragic realities facing forests worldwide. While the cattle sector in the Amazon is the single largest driver of deforestation in the world, other industries in other regions must also be tackled.

Copenhagen is a critical opportunity to agree measures and mechanisms including funding to combat global deforestation.

If it fails, the next crisis will not be a temporary economic downturn but an irreversible climate catastrophe.

PROTECT THE CLIMATE:
DEFEND THE AMAZON

CLEAN UP THE CATTLE TRADE

Stop trading with ranchers or companies engaged in Amazon deforestation.

Stop funding companies implicated in forest destruction.

STOP DEFORESTATION

Support an immediate moratorium on further Amazon deforestation.

Support measures to achieve Zero Deforestation in the Brazilian Amazon by 2015 and globally by 2020.

PROTECT THE CLIMATE

Support a strong climate protocol in Copenhagen in 2009, including a mechanism to fund forest protection.

'We have put men on the moon, we have created the industrial and the technological age, we have built awesome engineering projects and we have the capacity to develop the solutions to stop dangerous climate change. It is only through collaborative global action which takes the long term view, rather than focusing on short term gain, that we will be able to solve this challenge – but solve it we must and we must work to solve it today.'

The Carbon Disclosure Project

Companies belonging to the Carbon Disclosure Project mentioned in this report include:

APPENDIX:

COMPANY PROFILES

'We see 2008 as the conclusion of an acquisition cycle that positioned Marfrig to become the "food producer with the most diversified meat base" […] Gains in operational efficiency will be decisive for profitability and we expect the global crisis to create new opportunities […] We believe this period of adjustment through which the global economy is undergoing represents an opportunity for us to continue to grow by taking advantage of the synergies between our companies and positioning the Marfrig Group as a global food company.'

Marcos Antonio Molina dos Santos, CEO and Chairman, Marfrig 2008 Management Report

BERTIN

Bertin is an industrial conglomerate operating in the agribusiness sector (meat, leather, food processing, cosmetics, pet products and biodiesel production).[551]

Brazilian Federal Inspection Service (SIF) numbers show the company and plant origin of exported goods. SIF numbers link Bertin slaughterhouses or processing units through to beef products in the EU and USA.[552]

GOVERNMENT INTEREST – 27%

In April 2008, the BNDES injected capital funds worth R$1 billion ($485 million) into Bertin in exchange for a 13% equity stake.[553] By the close of 2008, BNDES had injected further funds worth R$2.37 billion ($1.15 billion) into Bertin, raising its stake in the company to 27%.[554] The funds are to be used for capital expenditures related to the expansion of operations.[555]

MULTILATERAL FINANCIAL SUPPORT

IFC – $90 MILLION

In March 2007, the IFC approved a $90 million loan to Bertin.[556]

The loan was designed to help the company supply growing demand for beef from international markets including the EU and the Middle East and increase production of leather for China.[557]

Specifically, Bertin would double beef production capacity at its facility in Marabá, on the Tocantins River in the Amazon region of Pará state. Additionally, it would construct a tanning operation in the vicinity of a slaughterhouse in Marabá.[558]

GLOBAL PROFILE

The company has been expanding rapidly, in a context of dramatic consolidation within the sector. In 2005-2007, Bertin's revenue increased by almost 40% per year.[559]

With cattle slaughter capacity of 11,850 head per day in 2008, Bertin has the second largest installed slaughtering capacity in Brazil, after JBS. From 2007 to 2008, the net sales of Bertin's beef division rose by 50% from R$3 billion to R$4.5 billion ($1.5 billion to $2.2 billion).[560] By the publication of its 2008 third quarter results, it estimated a slaughter volume increase of 51% year-on-year.[561] Bertin's estimate of the number of its Brazilian beef suppliers rose from 8,500 in December 2007[562] to 14,900 in June 2008.[563]

EXPORT ORIENTATION

Export trade accounts for almost half of Bertin's revenue.[564]

Bertin is Brazil's second-largest beef exporter, covering over 40% of Brazilian processed beef exports by value according to a December 2008 company presentation.[565] According to a confidential company document, Bertin's top beef customers include General Mills (USA), Burger King (USA), Kraft Foods (Italy), Nestlé (Switzerland) and Princes (UK).[566]

Bertin is one of the world's largest suppliers of leather and Brazil's number one exporter, accounting for 17% of Brazil's exports in 2008.[567] By December 2008, Bertin had the capacity to process 20,500 hides/day.[568] Much of this capacity will be supplied from third party slaughterhouses, as it outstrips its own current slaughter capacity of 11,850 head per day.

More than 69% of Bertin's leather production is for export.[569] According to a company document, Italy, the USA and China are top import countries. Automobile, furniture and footwear sectors are the key end-uses. Bertin lists direct leather customers including Clarks, Eagle Ottawa, Gruppo Mastrotto, HTL International (Domicil), Natuzzi (Divani & Divani), Chateau d'Ax and Timberland.[570]

With 40% of Brazil's export market share, Bertin is the country's leading exporter of dog toys (rawhide dog chews).[571] Its growth strategy has included the construction of two new dog toy factories, one of which is in Conceição do Araguaia (PA) in the Amazon.[572] 2003-2007 saw a year-on-year increase in gross revenue of almost 30%.[573] A confidential company document notes that Bertin is exclusive supplier for Hartz Mountain Corp (Sumitomo Corporation).[574]

Bertin also manufactures health and beauty products and raw materials for key customers including Colgate Palmolive, Johnson & Johnson and Unilever.[575]

BRAZILIAN KEY PROCESSING INFRASTRUCTURE

Bertin's major export-orientated facilities for beef and leather products are in Lins (SP) (SIF: 337).[576] Government trade data[577] reveal that supplies included beef and hides from the Amazon region including slaughterhouses in Rendenção (PA), Santana do Araguaia (PA) and Água Boa (MT) (SIF: 4121).

Bertin opened a biodiesel plant in Lins (SP) in August 2007 with capacity to produce 110 million litres of biodiesel per year from beef tallow. Suppliers of tallow for this facility include Água Boa (MT). The glycerine left over in the production process is used as raw material in the cosmetics industry.[578] Bertin also produces health and beauty products in Lins. BNDES refers to this unit as a 'continuous plant of hand soaps, soaps and glycerin.'[579]

GLOBAL INFRASTUCTURE IN KEY EXPORT REGIONS

Bertin owns Trump Asia (Hong Kong) and Wonder Best (HK/factory in Guangdong, China) in Asia.[580] Trump is a trader, while Wonder Best is a tannery supplying the shoe and upholstery industries. Wonder Best produces its own range of finished leather goods including handbags and camera cases under the 'Natural' and 'Pirano' brands.[581] Main export markets for Wonder Best are Asia and the USA, with Germany and the UK being important markets in Europe.[582]

Bertin lists Gruppo Mastrotto as a major customer in Italy.[583] Bertin started the Brazilian tannery Bermas as a joint venture with the Italian Rino Mastrotto Group.[584]

Bertin is 'exclusive supplier' to Eagle Ottawa,[585] the world's largest leather car interior manufacturer.[586]

DEFORESTATION AND SLAVERY IN BERTIN'S SUPPLY CHAINS

Greenpeace analysis of government trade data[587] and field investigations reveal that Bertin's cattle supply chain includes significant supplies from within the Amazon rainforest. The company sources from suppliers whose ranches are grossly in breach of deforestation limits and who actively continue to clear remaining forest within ranch boundaries.[588]

In the course of tracking links to illegal deforestation, Greenpeace has also uncovered trade between Bertin and ranchers implicated in forced labour.

Greenpeace investigation findings are detailed in relevant sections of this report.

Independência

Until the end of 2008, Independência Alimentos was one of Brazil's leading meat processing companies and meat and leather exporters.[589]

Brazilian Federal Inspection Service (SIF) numbers show the company and plant origin of exported goods. SIF numbers link Independência slaughterhouses or processing units through to beef products in the EU and USA.[590]

GOVERNMENT INTEREST – 14%

BNDES provided Independência with a capital investment of R$250 million ($121 million) in exchange for 14% preferred shareholding.[591]

GLOBAL PROFILE

Independência has 43% of its slaughter capacity concentrated in the states of Mato Grosso, Goiás and Rondônia, areas with 'significantly lower cattle prices'.[592]

As of December 2008, it had a slaughter capacity of 11,800 head per day and a leather processing capacity of 10,000 hides.[593]

Exports accounted for 45% of total beef revenue in second quarter 2008.[594] Exports accounted for more than 80% of total leather revenue. China and Italy were the largest destinations.

In early 2009, Independência was hit hard by the economic crisis and had to reduce capacity. As of 16 May 2009, the company had only one operational facility in the Amazon, with the majority of its operations elsewhere suspended.[595]

BRAZILIAN KEY INFRASTRUCTURE

Prior to the economic crisis, Independência in Brazil operated thirteen slaughterhouses (five in Mato Grosso), three tanneries, three meat-processing plants, three biodiesel factories and distribution centres in Cajamar, Itupeva and the port of Santos (SP).[596] Directly from its tannery in Nova Andradina (MS) or through its logistic hub in Santos (SP),[597] Independência supplies global leather customers in the footwear and furniture sectors. Exports of beef products are mainly realised by the processing plant in Cajamar (SP) (SIF: 556).[598]

KEY CUSTOMERS

In 2008, Independência exported beef products to customers in Russia (GPK Ruberg, Marr Russia/Cremonini) and Hong Kong (Regal Star, Hason Int), while its leather went to Italy (Gruppo Mastrotto) and China (TanTec Leather, Haining Mengu Group).[599]

SLAVERY IN INDEPENDÊNCIA'S SUPPLY CHAIN

In the course of tracking links to illegal deforestation in the cattle sector, Greenpeace has uncovered trade between Independência and ranchers implicated in forced labour.[600]

Greenpeace investigation findings are detailed in relevant sections of this report.

JBS

'We will be […] vigilant towards investment opportunities which could add value to our balance sheet.'

JBS President Joesley Mendonça Batista, 'Consolidated results for 2008' 19 February 2009

JBS is the world's largest producer and global exporter of processed beef.[601] The company controls at least 10% of global beef production.[602]

Brazilian Federal Inspection Service (SIF) numbers show the company and plant origin of exported goods. SIF numbers link JBS slaughterhouses or processing units through to beef products in the EU and USA.[603]

GOVERNMENT INTEREST – 13%

BNDES holds a 13% share in the company and sits on the JBS Board of Directors.[604] BNDES has provided nearly R$1.5 billion, ($728 million) in capital investment.[605]

GLOBAL PROFILE

With a global slaughter capacity of 65,700 head per day,[606] JBS generated R$30.3 billion ($14.7 billion) in earnings in 2008.[607] The company's operations include 22 beef slaughterhouses located in nine Brazilian states, six in Argentina, eight in the USA, ten in Australia and eight in Italy.[608]

JBS is Brazil's largest exporter of processed beef, with revenues of $1.1 billion in 2007.[609]

In Brazil, from 2001 to 2009, JBS' slaughter capacity increased from 5,800 head per day to 18,900 head per day.[610] The company has over 12,000 suppliers in Brazil, located within a 500km radius of the slaughterhouses.[611]

The company's top export markets for its Brazilian production are Europe, Russia, the Middle East and the USA.[612]

The company's key customers include its own subsidiaries Tupman Thurlow and Friboi in the USA and Europe, and joint venture partners include Inalca in Italy. Other key clients include Heinz, Americana (a supplier to KFC, Burger King, TGI Friday's and Pizza Hut) and Kraft Foods.[613]

JBS beef products also go directly to retail outlets in Europe and the USA, mainly from the JBS processing plant in Andradina (SP), but also from the JBS unit in Barra do Garças (MT).[614]

On 2 March 2009, JBS issued a statement to investors: 'JBS is in the process of growth in Brazil',[615] has not suffered any financial losses and is studying further expansion at some of its Brazilian plants, with the possibility of hiring of up to 5,000 people during the first half of 2009.[616]

BRAZILIAN KEY INFRASTRUCTURE

JBS has its largest slaughterhouse in Mato Grosso – the unit in Barra do Garças (SIF: 42) with a slaughter capacity of over 1,700 head per day.[617] Barra do Garças exports directly to Europe.[618] However, government trade data[619] reveal that beef from the Amazon region including Barra do Garças, Cáceres and Araputanga (MT) (SIF: 2979) goes to other JBS units for further processing,[620] including the São Paulo based, export-orientated units in Andradina (SP) (SIF: 385), Barretos (SP) (SIF: 76), São Paulo (SP) (SIF: 3327) and Presidente Epitácio (SP) (SIF: 458).[621] The Andradina facility is one of the largest factories in the world for cooked and frozen beef and ready meals.[622]

GLOBAL INFRASTRUCTURE IN KEY EXPORT REGIONS

In December 2007, JBS entered into a strategic alliance with the Italian company Gruppo Cremonini. The alliance encompasses the whole beef production and beef by-products division of Cremonini (Inalca SpA and Montana Alimentari SpA) in which JBS has a 50% stake[623] for which it paid €225 million ($308 million).[624] Inalca produces 260,000 tonnes of beef per year, of which 50,000 tonnes is ground beef for hamburgers.[625]

Cremonini claims that 'the Group is the leader in Italy in the production of beef and meat-based transformed products (Inalca SpA) as well as the leader in Italy in the distribution of food to the catering sector (Marr SpA). It is also amongst one of the most important Italian cured meat producers (Montana Alimentari SpA).'[626]

Cremonini's corned beef brand 'Montana' has the second highest market share in the canned beef sector, behind Kraft's Simmenthal brand and ahead of Manzotin of the Bolten Group[627] – brands also linked to Brazilian beef suppliers active in the Amazon.[628]

Cremonini is exclusive supplier to the Italian Railway (including EuroStar Group) and also supplies the French railway companies SNCF and Thalys International.[629] The Group is the second largest Italian motorway caterer through its 'ChefExpress' service stations.[630]

DEFORESTATION AND SLAVERY IN JBS' SUPPLY CHAIN

Greenpeace analysis of government trade data[631] and field investigations reveal that JBS' cattle supply chain includes significant supplies from within the Amazon rainforest. The company sources from suppliers whose ranches are grossly in breach of deforestation limits and who actively continue to clear remaining forest within ranch boundaries.[632]

In the course of tracking links to illegal deforestation, Greenpeace has also uncovered trade between JBS and ranchers implicated in forced labour.

Greenpeace investigation findings are detailed in relevant sections of this report.

'JBS continues its growth process in Brazil [through] the expansion of the market share of the Company in the beef sector.'

JBS website (2009)

According to company documents, Marfrig is the fourth largest producer of beef and beef products in the world.[633]

Brazilian Federal Inspection Service (SIF) numbers show the company and plant origin of exported goods. SIF numbers link Marfrig slaughterhouses or processing units through to beef products in the EU and USA.[634]

GOVERNMENT INTEREST – 15%

As of the end of December 2008, BNDES held 3% shares (R$102 million) ($49.5 million) in Marfrig.[635] In September 2008, BNDES increased its stake to 15%.[636]

GLOBAL PROFILE

Marfrig runs 57 plants in nine different countries across North and South America and in Europe. These include 18 beef slaughterhouses (half of which are in Brazil) and 16 further slaughterhouses for sheep, pigs and poultry. It also includes 30 processing plants. Marfrig's global beef slaughter capacity is 21,100 head per day and its industrialised and processed products capacity is 2,208 tonnes per day.[637]

Marfrig presents the fiscal year 2008 as a year in which it concluded its cycle of expansion and acquisitions, positioning Marfrig as 'the most diversified food company in different meats'.[638]

Marfrig's strategy includes:[639]

- Acquisition opportunities in a highly fragmented market
- Further processed beef products
- Expansion of food business

Marfrig exports its products to over 120 countries. The EU accounts for 45% of export revenue and 30% of export volume.[640]

The company has a Brazilian slaughtering capacity of 13,300 head per day (as of fourth quarter 2008) and a further meat processing capacity of 465 tonnes/day. However, it only has capacity to process 1,500 hides/day (São Paulo),[641] therefore the majority of hides resulting from slaughter must be sold on to third parties. The company sees industrialised meat processing as its niche, and estimates that processed products will account for up to 40% of its 2009 sales.[642]

In March 2009, Marfrig announced plans to increase slaughter capacity in second quarter 2009, when it expects fewer players in the market.[643] The crash in the price of cattle in the region is already increasing slaughter volume in Mato Grosso.[644]

CUSTOMERS

International trade data show key customers for Marfrig include:

Supermarkets: Tesco (UK), Metro (DE), Makro (NL), Aldi (DE), LIDL (UK), Spar (NL), Wal-Mart (US)

Brands: Inalca/Cremonini (IT), Kraft (IT), Princes (UK), Tupman Thurlow (US)

Ready meal and catering sector: Northern Foods (UK), Oakfield Foods (UK)

BRAZILIAN KEY INFRASTRUCTURE

Marfrig's export-orientated processing units are at Bataguassu (MS) (SIF: 4238), Promissão (SP) (SIF: 2543) and the Pampeano unit at Hulha Negra (RS) (SIF: 226).[645] Government trade data[646] reveal that supplies included beef from the Amazon region[647] including Marfrig's slaughterhouse in Tangará da Serra (MT) (SIF: 1751).

The slaughterhouse in Tangará da Serra (MT) supplies most of its beef to a Marfrig processing unit in Promissão, with smaller volumes also ending up at company units in Bataguassu, Santo André and Hulha Negra (Pampeano) in the southeast and south of Brazil.

In 2007, Marfrig bought Pampeano Alimentos,[648] with a processing capacity of 300 tonnes per day.[649] Its customers include the principal importers and distributors of canned meat products in more than 40 different countries.[650] PIERS export data reveal that in 2008 over 40% of production for export from this facility was destined for the UK, with 26% going to the USA. The Netherlands and Germany were the third and fourth largest destinations.[651]

GLOBAL INFRASTRUCTURE IN KEY EXPORT REGIONS

Marfrig Europe does business with all 27 EU countries.[652] The company anticipates increased beef product sales in the UK starting from third quarter 2009.[653]

In 2008, Marfrig bought Moy Park and CDB Meats in the UK.[654]

Moy Park supplies a large variety of chicken products to retailers throughout the UK, Ireland and Europe.[655] In 2009, the company signed new contracts with 'some UK supermarkets' for beef from Brazil. It expects to start marketing sliced fresh and cooked beef in June 2009.[656]

CDB Meats is a leading European importer and distributor of branded and own-label food products including corned beef and canned ready meals to the retail, food service and food manufacturing sectors. It trades under brands including Meteor, Concord, Caprice and Channel Maid.[657]

DEFORESTATION AND SLAVERY IN MARFRIG'S SUPPLY CHAIN

Greenpeace analysis of government trade data[658] and field investigations reveal that Marfrig's cattle supply chain includes significant supplies from within the Amazon rainforest. The company sources from suppliers whose ranches are grossly in breach of deforestation limits and who actively continue to clear remaining forest within ranch boundaries.[659]

In the course of tracking links to illegal deforestation, Greenpeace has also uncovered trade between Marfrig and ranchers implicated in forced labour.

Greenpeace investigation findings are detailed in relevant sections of this report.

'Minerva captures market share from exiting players. Slaughter share has also recovered to record historical levels.'

Minerva (2009) fourth quarter 2008 Results Conference Call 26 March 2009

Minerva is now the leading exporter of live cattle from Brazil, with 41% market share in the first half of 2008.[660] All exports of live animals by the company go through the port of Belém in the Amazon state of Pará.[661]

Brazilian Federal Inspection Service (SIF) numbers show the company and plant origin of exported goods. SIF numbers link Minerva slaughterhouses or processing units through to beef products in the EU and USA.[662]

GOVERNMENT INTEREST

In January 2009, Minerva signed a financing agreement with BNDES for a R$122 million ($59.2 million) loan to modernise and expand the company's units.[663] BNDES does not hold any shares in Minerva.[664]

Minerva also signed a financing agreement with the federal bank Banco da Amazônia for projects to modernise and expand its slaughterhouses in Araguaína (TO) and Rolim de Moura (RO): R$39 million ($19 million) and R$54 million ($26 million) respectively.[665]

GLOBAL PROFILE

Live exports have increasedalmost seven-fold since 2005.[666]

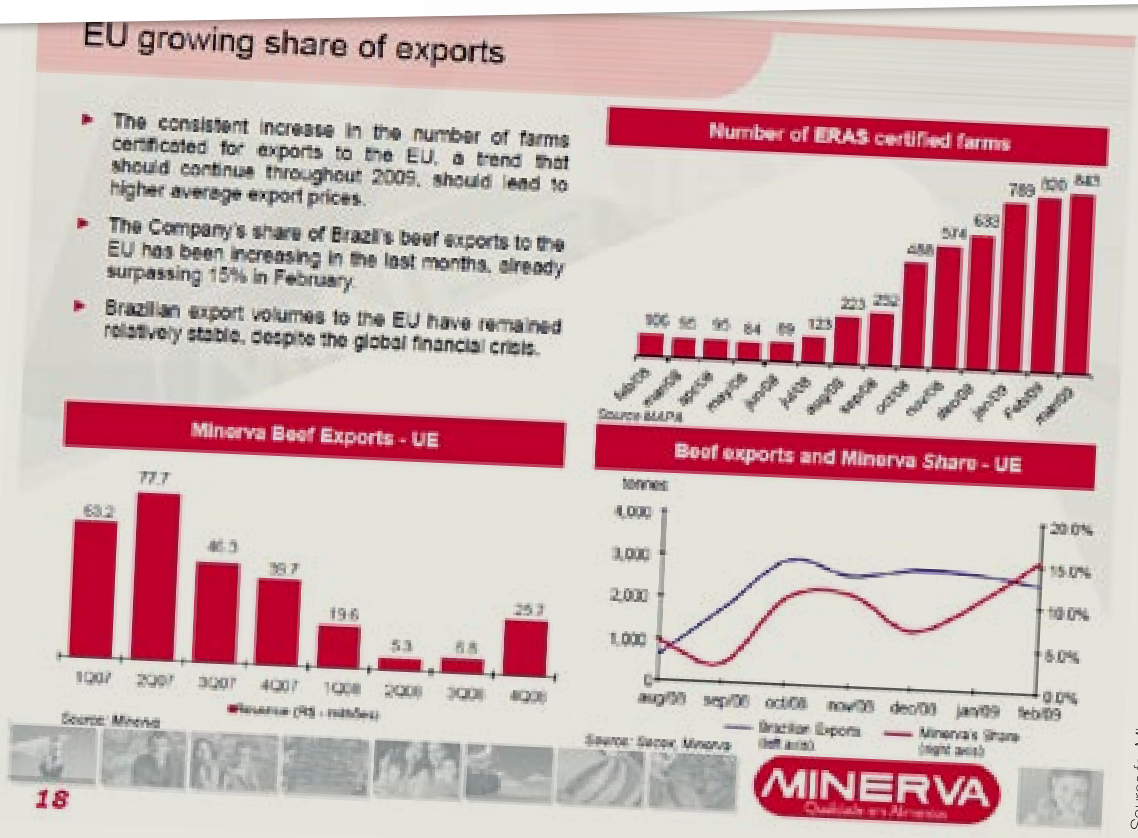
The company has slaughter capacity of 6,600 head per day, processing capacity of 1,300 tonnes per day and leather capacity of 5,000 hides per day.[667]

Some 14% of Minerva's Brazil slaughter capacity is in the Amazon region.[668]

'The Brazilian government has signalled strong support to our sector, this support probably turning into the creation of new working capital financing lines.'

'March margins improving due to reduction in raw material costs, mainly from cash purchases. Low inventory levels in the main export markets should lead to improved prices in new contracts. The company increased its production by 20% in March, with capacity utilization converging to near historical averages of 80%. Average monthly sales are also increasing'

Minerva (2009) fourth quarter 2008 Results Conference Call 26 March 2009



Source for Minerva graphic: Minerva (2009a)

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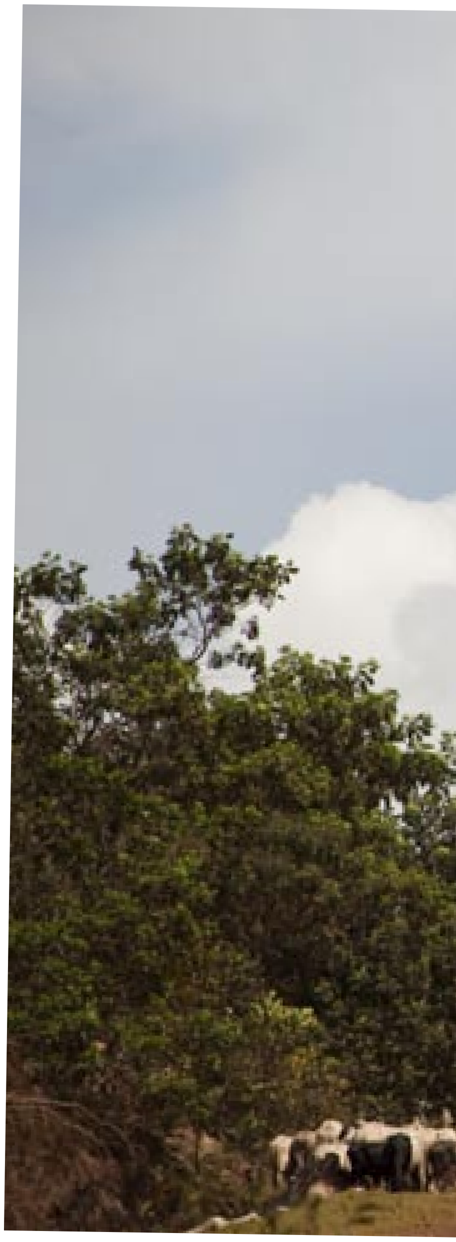

ENDNOTES

1 WRI CAIT Version 6.0 – figure for 2000 (the most recent figure available)

2 IPCC (2007c)

3 World Bank (2006)

4 Cattle in the Brazilian Amazon cause more deforestation than any other country total except Indonesia, where there are multiple drivers of deforestation:

a) Indonesia has the second largest deforestation rate, by area, after Brazil (1.87 million ha/yr, 2000-2005). Source: FAO (2009) 'Table 2 ftp://ftp.fao.org/docrep/fao/011/i0350e/i0350e04b.pdf

b) Deforestation in Indonesia has multiple drivers. For instance:

IIED estimate the percentage share of land-use on deforested land to be oil palm (32%), rubber (30%), rice (19%) and Cassava (19%). Source: Grieg-Gran, M (2006): 13

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5 The cattle sector in the Amazon accounts for nearly 14% of annual deforestation (1.72 million ha/yr Amazon deforestation attributable to cattle and 12.57 million ha/yr of world gross deforestation):

a) Amazon deforestation average 2000-2005, 2.15 million ha/yr. Source: INPE PRODES (2009)

b) 80% of Amazon deforestation (1,72 million ha/yr) is attributable to cattle. Sources for 80%: Chomitz and Thomas (2001): 14; Grieg-Gran (2006): 13; Presidência da República (2004): 10; Barreto et al. (2008): 20 citing IBGE (2006b); Greenpeace (2008a)

c) World gross deforestation 2000-2005, 12.57 million ha/yr. (12.57 million ha deforested - 5.26 million ha reforestation = 7.31 million ha net deforestation). Source: FAO (2009) 'Table 2' ftp://ftp.fao.org/docrep/fao/011/i0350e/i0350e04b.pdf

6 WRI (2005)

7 Saatchi et al (2007)

8 The CO_2e of carbon is 3.6667. Thus the CO_2e for the estimated carbon store within the Amazon is 293–440Gt. US GHG emissions for 2000 including LULUC and international bunkers is 6.57Gt CO_2e. Source: WRI CAIT Version 6.0

9 Amazon deforestation average 2000-2005 (from PRODES): 21,550.7km²; Rest of world deforestation (net): 7,317,000 hectares/year world total. Largest deforestation by area after Brazil = Indonesia –1,871,000 hectares. Source: FAO 'State of the world's forests 2009' www.fao.org/docrep/011/i0350e/i0350e00.HTM Table 2 ftp://ftp.fao.org/docrep/fao/011/i0350e/i0350e04b.pdf

10 80% of Amazon deforestation (1,72 million ha/yr) is attributable to cattle. Sources for 80%: Chomitz and Thomas (2001): 14; Grieg-Gran (2006): 13; Presidência da República (2004): 10; Barreto et al. (2008): 20 citing IBGE (2006b); Greenpeace (2008a)

11 Presidência da República (2004): 10

12 Amazon deforestation average 2000-2005 (from PRODES): 21,550.7km²; 80% of this attributable to cattle: 17,241km² (1,724,100 hectares)

13 The cattle sector in the Amazon accounts for nearly 14% of annual deforestation (1.72 million ha/yr Amazon deforestation attributable to cattle and 12.57 million ha/yr of world gross deforestation):

a) Amazon deforestation average 2000-2005, 2.15 million ha/yr. Source: INPE PRODES (2009)

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19 de Melo Saab (2008)

20 1998 304Mt, 2008 1,801Mt. Source: PSDOnline database

21 MAPA (2009). PSDOnline database gives slightly different figures

22 in this report, $ indicates US dollars, R$ indicates Brazilian real.

23 Leather represents 27%, processed 12%, fresh/frozen 61% of export trade value. Source SECEX (2009) covering HS code 16025000

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25 USDA FAS (2009a): 2

26 Chomitz and Thomas (2001): 14 attributes up to 90% to pasture including abandoned land; Grieg-Gran (2006): 13 extrapolates from Chomitz/World Bank figures that 77% of deforested land is grazing + ~10% abandoned pasture land; Presidência da República (2004): 10 states that cattle is responsible for 80% of deforested land in the Amazon region; Barreto et al. (2008): 20 citing IBGE (2006b) conclude that 75%–81% of land deforested up to 2005 has been occupied by cattle; and Greenpeace (2008a) concludes from analysis of satellite data that in 2006 cattle occupied nearly 80% of the land already in use in the Amazon region (77% or 79.5% if Maranhão excluded).

27 Eg Barreto et al (2008) – see main report

28 The analysis compared satellite imagery revealing the total area of Amazon deforestation between July 2006 and July 2007 with the area of deforestation granted in permits issued by IBAMA and local environmental protection agencies within the Amazon region (excluding Tocantins and Maranhão). The calculation excludes issues of land tenure. Source: Greenpeace (2008c): 7
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80 WRI CAIT Version 6.0 – figure for 2000 (the most recent figure available)
81 Government of Brazil (2008)
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84 eg BNDES (2009):64, 267-269; Minerva (2009b)
85 100 tonnes/hectare – the Brazilian government's preferred figure carbon stored per hectare of forest (Government of Brazil (2008)) this gives 366.7 tonnes CO_2 emissions per hectare of forest lost
1,953,300 hectares – average annual deforestation in the Legal Amazon 1996-2005 (INPE PRODES figures) This is the period the Brazilian government's National Plan on Climate change uses as a baseline for calculating deforestation reductions.
716Mt CO_2 – Average annual CO_2 emissions from Amazon deforestation 1996-2005, based on above figures.
80% of Amazon deforestation (1,72 million ha/yr) is estimated to be attributable to cattle. Sources for 80%: Chomitz and Thomas (2001): 14; Grieg-Gran (2006): 13; Presidência da República (2004): 10; Barreto et al. (2008): 20 citing IBGE (2006b); Greenpeace (2008a)
573Mt CO_2 = 80% of 716Mt CO_2 – emissions attributable to the cattle industry in the Legal Amazon
377.24 Mt CO_2 – Fossil fuel consumption emissions Brazil (2006) Source: IEA (2008) Table H.1 CO_2 'World carbon dioxide emissions from the consumption and flaring of fossil fuels, (million metric tons of carbon dioxide), 1980-2006' www.eia.doe.gov/pub/international/iealf/tableh1co2.xls accessed 7 May 2009
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86 MAPA (2009): 4
87 Top performing stock-listed companies
88 Government of Brazil (2008)
89 MAPA (2009)
90 80% of Amazon deforestation (1,72 million ha/yr) is estimated to be attributable to cattle. Sources for 80%: Chomitz and Thomas (2001): 14; Grieg-Gran (2006): 13; Presidência da República (2004): 10; Barreto et al. (2008): 20 citing IBGE (2006b); Greenpeace (2008a)
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120 716Mt – Average annual CO_2 emissions from Amazon deforestation 1996-2005, based on the Brazilian government's preferred figure of 100 tonnes of carbon stored per hectare of forest (Government of Brazil (2008):14) – ie 366.7 tonnes CO_2 emissions per hectare of forest lost – and average annual deforestation 1996-2005 of 1,953,300 hectares (INPE (2009)).

121 Data for 2006 (Coal consumption emissions Mt CO_2): France 51.95, Germany 318.51, Italy 62.48, Netherlands 41.55, Spain 72.74, United Kingdom 158.22 Total - 705.45 MT CO_2 Source: IEA (2008). Table H.4co2 'World carbon dioxide emissions from the consumption of coal (Million metric tons of carbon dioxide), 1980-2006' www.eia.doe.gov/pub/international/iealf/tableh4co2.xls accessed 17 April 2009

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Since 1998, Greenpeace has been working alongside Amazon communities to investigate and expose the threats to the Amazon, and to confront the major actors driving the criminal destruction of this globally critical rainforest.

In order to improve our effectiveness, we set up a satellite mapping team in the Amazon to track and identify those responsible for driving deforestation. This work is coupled with on-the-ground investigations and aerial surveillance.

The world's forests maintain ecological systems that are essential for life. The cultural survival of many forest dwelling peoples and communities depends on the ongoing health of their forests. Forests also play critical role in the preservation of wildlife diversity – over half of the world's land-based plant and animal species are found in forests.[669]

Forests play a vital role in stabilising the world's climate by storing large amounts of carbon that would otherwise contribute to climate change.

Forests are a crucial carbon store: forest ecosystems globally hold about one-and-a-half times as much carbon as is present in the atmosphere.[670] Deforestation of tropical forests is responsible for up to 20% of global GHG emissions, more than the world's entire transport sector.[671]

The Amazon is estimated to store 80-120 billion tonnes of carbon.[672] If this is destroyed, some fifty times the annual GHG emissions from the USA could be emitted.[673]

The Amazon Basin covers an area of approximately 650 million hectares across nine South American countries, 5% of the Earth's surface.[674]

It holds the largest river system on the planet, about one-fifth of the total volume of fresh water in the world.

The Amazon forest influences regional weather patterns. Moisture in the rainforest regulates rainfall over the main agricultural production areas of Brazil.[675]

The region is home to more than 20 million people including over 200,000 indigenous people belonging to 180 different ethnic groups.[676] The rainforest is central to their culture, providing them food and shelter, tools and medicines.

Studies estimate that the Amazon supports 40,000 plant species; 427 mammals; 1,294 birds; 378 reptiles; 427 amphibians and 3,000 species of fish.[677]

GREENPEACE

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Greenpeace is an independent global campaigning organisation that acts to change attitudes and behaviour, to protect and conserve the environment and to promote peace.

Greenpeace is committed to stopping climate change.

We campaign to protect the world's remaining ancient forests and the plants, animals and peoples that depend on them.

We investigate, expose and confront the trade in products causing forest destruction and climate change.

We challenge governments and industry to end their role in forest destruction and climate change.

We support the rights of forest peoples.

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