

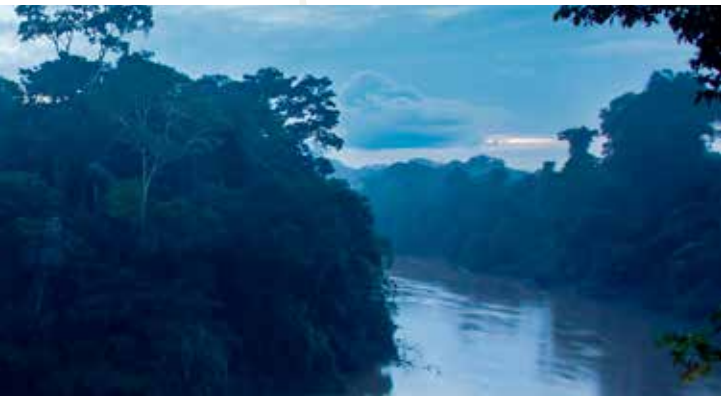


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# Yasuni-ITT



## An Initiative to change history

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# Yasuni-ITT

Creating a new world



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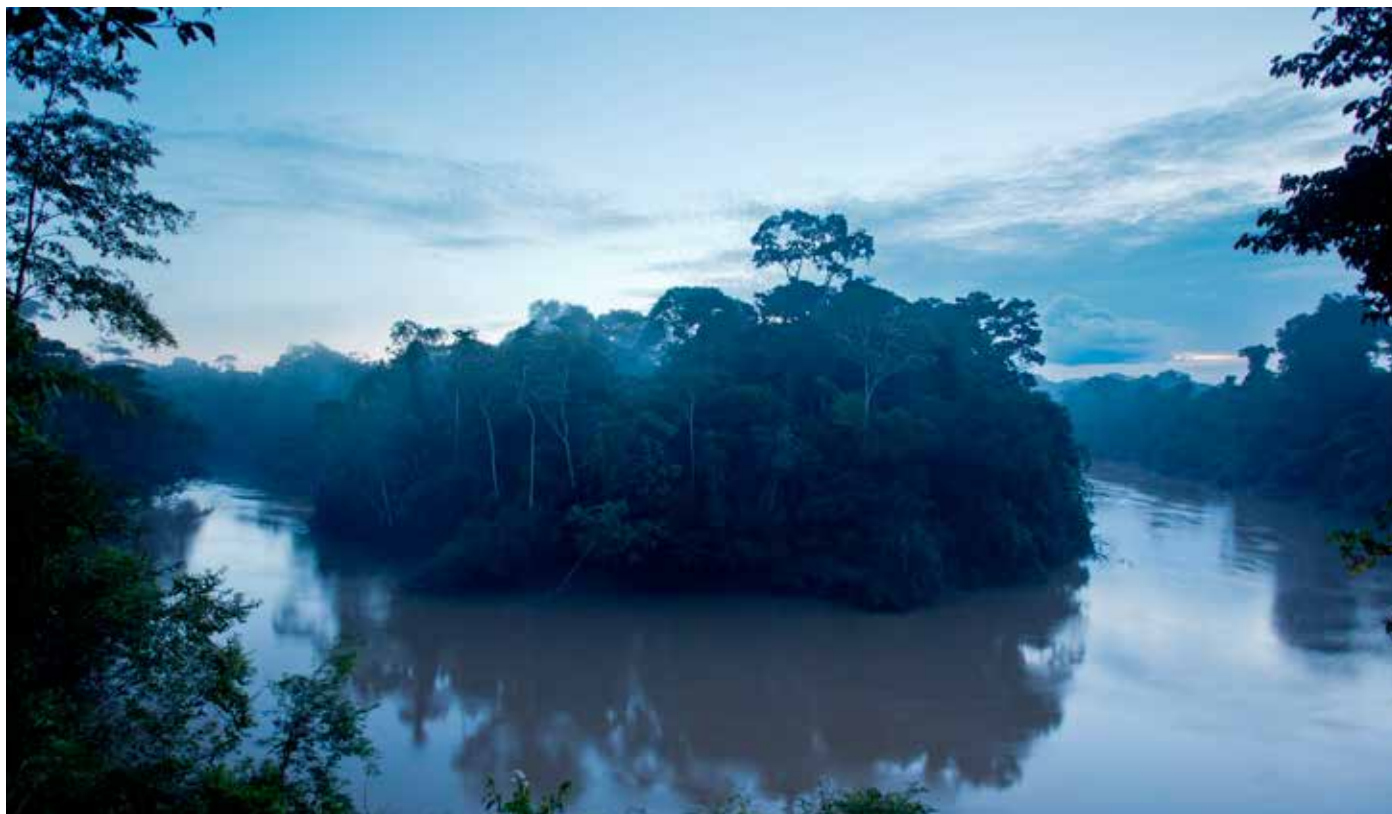
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# Executive Summary



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Ecuador, one of the most biologically diverse countries in the world, is also noted for the richness and variety of its indigenous cultures. In 1972 the country became an oil exporter and since then this product has been the centrepiece of the national economy. The environmental and social impacts of the oil industry, however, have been significant.

Large deposits of heavy crude oil have recently been confirmed in the ITT (Ishpingo-Tambococha-Tiputini) field, located in the Yasuní National Park, one of the most important biodiversity reserves in the world. President Rafael Correa presented to the United Nations Ecuador's decision to keep the crude oil in the ITT field indefinitely underground provided that the international community cooperates with Ecuador by contributing at least half of the revenue that the State would earn by extracting the oil.

## This original initiative proposes:

**a) An innovative option for combating global warming**, by avoiding the exploitation of fossil fuels

in areas of high biological or cultural sensitivity in developing countries;

**b) Protecting Ecuador's biodiversity and supporting the voluntary isolation of indigenous cultures** living separated in Yasuní Park (Tagaeri and Taromenane);

**c) Social development, nature conservation and the implementation of renewable energy sources**, as part of a strategy aimed at consolidating a new model of sustainable, equitable development in the country.

**Ecuador commits to indefinitely refrain from extracting the 846 million barrels of oil reserves in the ITT field**, within the Yasuní National Park. The international community participates by providing a financial contribution, creating a capital fund to be administered by UNDP, with the participation of the State, Ecuadorian civil society and contributors.

The fund's capital will be invested only in renewable energy projects in Ecuador with fixed, safe returns, taking advantage of the country's vast hydroelectric, geothermal, wind and solar potential, in order to

eliminate its current dependence on fossil fuels, which currently account for 47% of all power generation.

**The interest earned from this fund will be invested by the State for the following purposes, within the guidelines of the National Development Plan:**

1. The effective conservation and avoided deforestation of Ecuador's protected areas, which total 44 and cover over 4.8 million hectares, along with other remaining ecosystems particularly in the Amazon rainforest. The total area protected amounts to at least 19% of Ecuador's territory, one of the highest percentages in the world, and the total primary forest area in Ecuador reaches 35%. Properly conserving the Yasuní Park would also allow the Tagaeri and Taromenane peoples to remain in voluntary isolation.
2. Reforestation, afforestation, natural regeneration and appropriate management of one million hectares of forestry managed by small landholders, on land currently threatened with degradation.
3. An increase in national energy efficiency and energy savings.
4. Social development in the zones of influence of the Initiative's projects, with programs that include health, education, training, technical assistance and productive job creation in sustainable business, such as ecotourism, agriculture and agroforestry.

5. Research and development in science and technology on renewable energy, sustainable development and conservation.

The Yasuní-ITT fund will promote the transition from the current development model, based on oil extraction, to a new strategy based on equality and sustainability.

**The voluntary contributions to the international cooperation fund to keep the ITT reserves underground will come from:**

**a) Governments of partner countries and international multilateral organizations.**

- a) Contributions from climate change mitigation funds, emission allowance auctions or carbon taxes.
- b) Debt-for-conservation swaps.
- c) Other contributions.
- d) Specific projects in renewable energy sources, prevented deforestation, conservation and social development.

**b) Contributions from civil society organizations.**

**c) Contributions from socially and environmentally responsible companies.**

**d) Contributions from citizens worldwide.**

In exchange for the contributions, the Ecuadorian





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*Hummingbird (Trochilidae)*

State will guarantee to keep the ITT oil reserves underground indefinitely. The State will issue guarantee certificates for the nominal value of the contributions (YGCs) up to the amount of the 407 million tonnes of non-emitted carbon dioxide. The real backing for the guarantees will be the value of the investments made with the capital fund.

The revenues that the State would receive if the oil were to be extracted are currently valued at 7.61 billion U.S. dollars, based on the reference price of US\$ 76.38 per WTI barrel at September 14, 2010. The prevented emission of 407 million tonnes of CO<sub>2</sub>, which would be generated by burning the ITT oil, is valued at US\$ 8.07 billion, according to current prices on the European ETS market (US\$ 19.81 per tonne of CO<sub>2</sub>-eq of the EUAs, at September 14, 2010). Its present value is thus US\$ 5.49 billion. The figures are only a reference, given the unstable evolution of both oil and carbon credit prices in the last years. As of August 15, 2011, the present value of oil revenues reached 9.15 billion dollars, with a WTI price of 87.12 dollars per barrel, while the present value of avoided emissions was 4.96 billion dollars, taking a price of 17.88 dollars per CO<sub>2</sub> tonne for EUA in the ETS market.

Ecuador proposes that countries supporting the Yasuní-ITT Initiative participate by making their contribution to the fund, which will internationally be managed by the United Nations.

The Yasuní-ITT Initiative opens up a new mechanism to prevent greenhouse gas emissions, with the participation of developing countries, by leaving fossil fuel reserves located in environmentally or culturally fragile areas indefinitely underground.

To qualify for this new mechanism, countries must meet the following criteria:

1. Be developing countries.
2. Be mega diverse countries located between the Tropics of Cancer and Capricorn, which have the highest density of tropical forests and contain most of the planet's biodiversity.
3. Have significant fossil fuel reserves in areas of high biological or cultural sensitivity.

Among the countries that fulfil all these conditions are: Brazil, Colombia, Costa Rica, Democratic Republic of Congo, Ecuador, India, Indonesia, Madagascar, Malaysia, Papua New Guinea, Peru, Bolivia, the Philippines and Venezuela.

Given the Kyoto Protocol's current limitations,



Ecuador has put forward this innovative alternative to allow for the active participation of developing countries in the mitigation of climate change, protecting biodiversity, the rights of indigenous peoples and promoting a new style of human development, which is equitable and sustainable.

The project has received the official support of various internationally recognized individuals, including; Muhammad Yunus, Desmond Tutu, Jody Williams and Rigoberta Menchú, Nobel Peace laureates, Rita Levi Montalcini, Nobel laureate in Medicine, Ban Ki Moon, Secretary General of the United Nations, ex-presidents Mikhail Gorbachev (former USSR), Felipe González (Spain), Fernando Henrique Cardoso (Brazil), Ricardo Lagos (Chile), Prince Charles of Great Britain, Danielle Mitterrand, President of the France Libertés Foundation, among others. It has also received a formal backing from the German Parliament, with unanimous support from the represented political parties, as well as the European Union, and other international bodies such as OPEC (Organization of Petroleum Exporting Countries), CAN (Andean Community of Nations), CAF (Andean Development Corporation), the OAS (Organization of American States), numerous international organizations, like the IUCN (International Union

for Conservation of Nature and Natural Resources), and various indigenous organizations and ecological groups in Ecuador. Chile has become the first country in the world to contribute financially to the Initiative, delivering its contribution on September 13, 2010, and followed by Spain. Other countries, such as Italy and Peru, also have contributed to the Fund, as well as the Wallonia regional government in Belgium and several local governments in France. Non-governmental organizations, such as AVINA, also participated.



Opossum (*Didelphis pernigra*)

# Yasuní-ITT: an initiative to change history



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*Lowland forest of Yasuní National Park*

**A**pril 22, 2009. Earth Day. Four gigantic puppets walk through the streets of Central London to remind us who are the new Horsemen of the Apocalypse: red symbolizes war; green is climate change; white represents “monetary crimes”; and the black, poverty.<sup>2</sup>

Each one more dramatic than the other, the horseman of climate change constitutes – perhaps because it could end up spawning the other three – the greatest global challenge facing current generations, who are already suffering from the first effects, but whose inaction could make them to blame for impacts yet to come.

Increasing temperatures, rising sea levels and more frequent and intense extreme weather events such as floods, droughts and hurricanes, which have already begun, will have dramatic effects all over the planet. And, once again, developing countries will be the hardest hit.<sup>3</sup>

As the world becomes warmer, millions of people will find their basic living needs disrupted: access to water, food production, health and the environment. Nevertheless, there is still time to halt the galloping of the horseman, that is, if we begin now to take decisive and forceful measures together.

Ecuador is among the countries that are highly vulnerable to climate change. The most severe foreseen effects include the virtual disappearance of the Andean glaciers, the intensification of the El Niño phenomenon and the savannization, near obliteration of the Amazon rainforest region.<sup>4</sup>

2 In Paz y Miño, César. El Telégrafo newspaper. April 26, 2009.

3 UNDP (2008). Human Development Report. <<http://hdr.undp.org/en/reports/global/hdr2007-2008/>>.

4 Stern Review: The Economics of Climate Change. <<http://webarchive.nationalarchives.gov.uk/>>.



# The Yasuní-ITT Initiative: a proposal at once creative, holistic and revolutionary

**A**long with global warming, another huge environmental threat that the planet faces, is the loss of biodiversity. Ecuador is one of the world's 19 mega diverse nations and is also noted for the wealth and variety of its indigenous cultures. Although In 1972 Ecuador became an oil exporter and since then this product has been the centrepiece of the national economy, the environmental and social impacts of the oil industry have been significant.

The Yasuní-ITT Initiative is a holistic, revolutionary proposal because - in addition to addressing the root of global warming and biodiversity loss, namely the use of carbon as an energy source - it also aspires to fight poverty and inequality in the country. Moreover, the initiative offers an opportunity for oil-producing developing countries, such as Ecuador, to end their dependence on an extractive economy and seek dignified development opportunities through the sustainable use of their natural resources.

The Initiative:

- Tackles global warming by preventing carbon reserves from polluting the atmosphere. It involves not exploiting this resource, leaving the oil and gas indefinitely underground and, in the case of forestry, guaranteeing the conservation of these giant carbon sinks, and promoting reforestation in degraded areas.

In addition, reducing the use of oil in power generation and industrial production, replacing it with carbon-free technologies for industry and homes, and increasing efficiency in energy consumption will also curb CO2 emissions. Ecuador can thus progress towards alternative, equitable and sustainable development.

- Combats the loss of biodiversity by guaranteeing the protection and sustainable management of up to 35% of Ecuadorian territory covered by primary forests and protected areas, which houses the highest biodiversity on the planet. It further guarantees the survival of the last two indigenous communities who live in voluntary isolation in Ecuador: the Taromenane and the Tagaeri.

- Fights poverty and inequality by prioritizing investment in education, training, employment, health, the development of sustainable technologies



*Native parrot the Yasuni National Park*

and non-extractive business, favouring the poorest and most marginal sectors of society in the areas of influence of the projects.

To sum up, this is an initiative whose all-round approach seeks to achieve three complementary objectives at the same time: to reduce CO2 emissions, protect biodiversity, and reduce poverty in Ecuador. These objectives fit in with and work towards the Millennium Development Goals.

To make the initiative viable, the Ecuadorian State initially accepts to assume up to half the opportunity cost of using the oil.

## BOX 1 THE GREEN HOUSE EFFECT

Sunlight enters the earth – overcoming the albedo effect of the atmosphere - and is partially transformed into caloric energy that increases the mean temperature of the earth from  $-22^{\circ}\text{C}$  to  $+14^{\circ}\text{C}$ .

This heat is retained in the atmosphere by 6 greenhouse gases (water vapour, carbon dioxide, methane, nitrogen oxides, ozone and chlorofluorocarbons-CFC). These gases act like the glass in a greenhouse, allowing solar energy to enter in the form of light. When this light hits the surface, it is partially transformed into heat which cannot escape because the gases block it. It is due to this principle of physics that life on earth has flourished.

Since the industrial revolution began, 200 years ago, humans have been using the mineral carbon - coal, wood, gas and oil - as energy sources. Ever-increasing amounts of these elements are burned daily, releasing

$\text{CO}_2$ , which is stored in the atmosphere. Thus, from 1900 to 2009 the concentration of  $\text{CO}_2$  in the atmosphere rose from 280 to 387 parts per million (ppm). This resulted in the mean temperature of the planet increasing from  $13.6^{\circ}\text{C}$  to  $14.4^{\circ}\text{C}$ .

The greater concentration of  $\text{CO}_2$  in the atmosphere is also caused by the destruction of forests, which are great carbon sinks due to the process of photosynthesis.

If the use of carbon-dependent energies and the destruction of forests persist, temperatures will continue to rise to the end of the 21st century, from a minimum of  $1.8^{\circ}\text{C}$  to  $5.8^{\circ}\text{C}$ . Climate models indicate that human activities are manageable if the change is  $2^{\circ}\text{C}$  or below. Any higher figure will have devastating, catastrophic consequences.

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## BOX 2 THE ROOT OF THE PROBLEM: USING CARBON AS AN ENERGY SOURCE

- The greatest source of energy used by man is the burning of carbon. Carbon is the main element of life. Every living being has carbon in its bio-molecular structure.
- This element is present in the atmosphere in the form of  $\text{CO}_2$ , in the seas mainly as carbonates and on earth as carbonate rocks, coal, gas and oil.
- Through photosynthesis, the entire planet's plant cover (forests, grasslands, tundra, paramos, phytoplankton) absorbs  $\text{CO}_2$  and incorporates carbon into its tissues, giving off oxygen.
- Subsequently, herbivores eat vegetables and the carbon becomes part of their bodies; these animals return the carbon to the atmosphere through breathing, and to the soil in the form of excrement or decomposition.
- $\text{CO}_2$  dissolves in water, which means that sea water stores it in large quantities.
- The skeletons of dead marine organisms accumulate

on the sea beds and, after they decompose, are transformed into carbonate rocks. Carbonate rocks on land also end up in the sea due to erosion.

- This is how the carbon cycle closes.
- The great carbon reservoirs and the impact of human activity

**The planet's great carbon reservoirs are therefore:**

1. Oceans: 66%
2. Continents (gas, oil, mineral carbon, woods, etc.): 33%
3. The atmosphere: 1%

Human activities are dramatically swelling the carbon content in the atmosphere, due to the release of the carbon accumulated in both plant cover and reserves of oil, natural gas and coal.



**BOX 3 GLOBAL WARMING IN FIGURES**

If the current trends continue, the economic cost of global warming could reach 20% of the global Gross Domestic Product (GDP). Nevertheless, we can still prevent its harshest effects. By making a timely investment of the equivalent of 1% of global GDP, the increase in temperature could be limited to 2°C and the concentration of greenhouse gases kept below 450 parts per million (ppm). This endeavour, however, requires a substantial shift in the global economy: reducing current emissions by 80%, achieving a reduction of at least 25% by 2050.<sup>1</sup>

Even though the Kyoto Protocol (KP) and other international efforts aimed at mitigating climate change have achieved significant results, these have clearly been insufficient given the magnitude of the challenge. The KP proposed a global reduction of greenhouse gas emissions to 95% of their 1990 levels. Unfortunately, in 2006, global CO<sub>2</sub> emissions

from fossil fuel burning were 35% up on 1990 levels and were continuing their upward trend at a rate of 3% annually.<sup>2</sup>

The burning of fossil fuels is the main source of greenhouse gas emissions and occurs, above all, in industrialized countries (65%). However, deforestation, which mainly takes place in developing tropical countries, accounts for 18% of the total.

The enormous worldwide challenge required to revert these trends goes beyond the KP and demands joint, coordinated action by the whole world, including developing countries, which currently do not have any binding commitments. “Even if the rich world assumes all its responsibility and secures absolute cuts in emissions of up to 60-80% by 2050, developing countries are not excused from their own share of equally significant steps.”<sup>3</sup>

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1 Stern, Nicholas (2007). Stern Review: The Economics of Climate Change. 2007. <http://webarchive.nationalarchives.gov.uk/>.

2 Brown R., Lester (2009). EcoEconomy Indicators. <http://www.earth-policy.org/Indicators/>

3 Stern. Op.cit.

# A small country, a big idea



*Wao group traveling over the territory ancestral*

As Nicholas Stern says, “Even if the rich world assumes all its responsibility and secures absolute cuts in emissions of up to 60-80% by 2050, developing countries are not excused from their own share of equally significant steps”.

Ecuador proposes taking on its own share of responsibility and facing up to this challenge.

On the recent confirmation of large heavy crude deposits in the Yasuní-ITT field (Ishpingo-Tambococha-Tiputini), containing 20% of the country's total oil reserves, in September 2007, the President of Ecuador, Rafael Correa, presented to the United Nations a bold decision: to keep the crude oil in the ITT field underground indefinitely, providing that the international community – taking on its share of joint responsibility - contributes at least half the revenue that the State would receive if it were to extract this crude.

“With our Yasuní-ITT project, Ecuador has come up with a concrete, innovative proposal for helping to reduce CO2 emissions and conserve biodiversity”<sup>5</sup>, the President told the United Nations.

The initiative is based on a commitment to refrain from exploiting proven reserves of 846 million barrels of heavy crude oil<sup>6</sup>, and thus prevent the emission of 407 million tonnes of CO2 from the burning of fossil fuels.

“This would be an extraordinary example of global collective action,” Correa remarked, “which would not only reduce global warming for the good of the whole planet, but also introduce a new economic mindset for the 21st century, in which the creation of value, not only of goods, is rewarded.”

In August 2010, the International Trust Agreement between the Ecuadorian Government and the United Nations Development Programme (UNDP) was signed, through which said Trust assumed the management of the financial contributions paid into the Yasuní-ITT Fund, assuring the transparent and effective administration thereof.

5 Correa, Rafael. Speech given to the United Nations Presidents Forum on Climate Change, New York, September 22, 2007 (<[www3.presidencia.gov.ec](http://www3.presidencia.gov.ec), 2009>).

6 The density of ITT crude oil is 14.7° API (American Petroleum Institute).



## GIVING TO RECEIVE...



Aerial view ITT-Yasuni National Park

In return for Ecuador's decision to keep the oil in the Yasuní-ITT field indefinitely underground, international contributions will be paid into a capital fund, managed by the United Nations Development Programme (UNDP) with the participation of the main contributors.

The capital fund will be invested in fixed-income preferred stock for expanding the generation of renewable energy in Ecuador, taking advantage of the country's vast hydroelectric, geothermal, wind and solar power potential, thus ending the country's dependence on fossil fuels, which currently account for approximately 47% of power generation. This fund will enable the State to earn interest in perpetuity, which will be invested in five areas, in accordance with the guidelines of the National Development Plan<sup>7</sup>:

**1. The effective conservation and prevented deforestation of 44 protected areas**, which account for 4.8 million hectares, along with other remaining ecosystems. The total area protected amounts to at least 19% of Ecuador's territory, one of the highest percentages in the world, and the total area covered by pristine forests to be

conserved reaches at least 35% of the national land. Properly conserving Yasuní Park would also allow the Tagaeri and Taromenane peoples to remain in voluntary isolation. A substantial reduction in the deforestation rate, currently regarded as one of the highest in South America, will be pursued.

**2. The natural regeneration, reforestation and afforestation of one million hectares** of forestry managed by small landholders, on land currently threatened with degradation.

**3. An increase in national energy efficiency** and energy savings.

**4. Social development in the zones of influence of the three preceding objectives**, with programs in education, health, training, technical assistance and productive job creation in sustainable business, such as ecotourism and agroforestry.

**5. Research and development in science and technology for:**

7 SENPLADES (2007). Plan Nacional para el Buen Vivir: 2009-2013. Quito.



a) the creation of goods and services based on bio-knowledge, b) sustainable development and integrated water-basin management, and c) a shift in the national energy system, in line with the National Development Plan.

Put another way, the Yasuní-ITT fund creates new mechanisms to reduce and capture emissions by investing in the prevention of deforestation and in reforestation, the development of renewable energy sources and enhancement of the country's energy efficiency. Some of these reductions, such as the development.

of alternative energy sources, fit in with the existing Clean Development Mechanisms (CDM), while others, like reducing emissions from deforestation (REDD), are currently being incorporated through the post-Kyoto talks.

The CO<sub>2</sub> emissions avoided by keeping the oil underground reach 407 million tonnes. The additional projects financed by the capital fund could mitigate over 820 million tonnes in the next 30 years by avoiding deforestation, reforestation, and changing Ecuador's power generation and demand, thus tripling the initial effect<sup>8</sup>.

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**BOX 4 THE BIODIVERSITY OF YASUNÍ NATIONAL PARK**

Yasuní National Park is regarded as one the most biodiverse places on earth. It was created in 1979 and declared a UNESCO World Biosphere Reserve in 1989. It encompasses an area of 928,000 ha. in the upper Napo basin in the western Amazon region. Its strategic position, close to the equator and the Andes, endows it with one-off climatic conditions in the Amazon region, with relatively uniform, high temperatures and humidity.

Scientists agree on the Park's unique value due to its extraordinary biodiversity, state of conservation and cultural heritage. The reserve is home to an estimated 2,274 tree and bush species; 655 species have been counted in just one hectare, more than the total number of native tree species in the United States and Canada combined. The Park has 593 recorded bird species, making it one of the world's most diverse avian sites. There are also 80 bat, 150 amphibian and 121 reptile species, as well as 4,000 vascular plant species per million hectares. The number of insects is estimated to be 100,000 species per hectare, the highest on the planet. In all the species there is a high degree of endemism. The Park has the highest density of amphibian, mammal, bird and plant species in the Amazon region. Furthermore, the projected temperature rise in the park due to climate change will be comparatively moderate, which makes the area strategically important for the future conservation of species. The Park's unique characteristics can be explained by a number of factors: its stable climate, with high rainfall, and warm but regular temperatures in different seasons. The diversity of its soil types creates various ecosystems on firm and flood-prone land. It has been said that the territory was a refuge in the Pleistocene era, a geological period when glaciations drastically cooled the earth's climate, turning most of the Amazon region into grassland. Species grouped in a few places – “the Pleistocene refuges” – where jungle still flourished, such as Yasuní, leading to a process of speciation or the differentiated evolution of new species. The Pleistocene began 2.6 million years ago and ended 12,000 years ago.

Yasuní National Park is also home to two indigenous groups that have voluntarily chosen to stay in isolation from Western culture: the Tagaeri and the Taromenane, both belonging to the Waorani ethnic culture.

The exceptional and unique richness of the park is currently threatened by the oil business, the accelerated deforestation of the Ecuadorian Amazon region, and the construction of roads.

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**Sources:** Scientists Concerned for Yasuní National Park, letter to the President of Ecuador, November 25, 2004; Bass M, Finer M, Jenkins C, et al. (2010), Global Conservation Significance of Ecuador's Yasuní National Park. PLoS ONE, Volume 5, Issue 1, January 2010.; Horn, Carina (2006) “The Birth of the Mighty Amazon” in Scientific American, May, p. 40-45.

**BOX 5 THE INDIGENOUS PEOPLES OF YASUNÍ NATIONAL PARK**

A number of indigenous groups live in Yasuní National Park: the Kichwa or Naporuna, Waorani, Tagaeri and Taromenane. The indigenous people of the Waorani nationality, who have lived in the Ecuadorian and Peruvian Amazon region since ancient times and occupy most of Yasuní National Park, went from being considered “human” to being seen as savages once they came into contact with Western culture. In their language (Wao Tededo), Waorani means “true humans”. It is reported that the first missionaries and expeditioners referred to the Waorani as “Aucas,” which in Kichwa means “savages”, since the latter did not accept any contact with outsiders and attacked any who invaded their territory. Their fame as warriors is well known through stories of clashes with other peoples and among Waorani clans. They were traditionally hunter-gatherers who were self-sufficient and formed kinship-based alliances.

The Waorani have been marked by their isolation and forced contact. Their subsistence used to be based on hunting, gathering and nomadic farming; they have survived the onslaught of other indigenous cultures and Western civilization by retreating deep into the interfluvial plains, like that between the Napo and Curaray rivers. Contact dates back to 1956 with the Summer Institute of Linguistics (SIL) and a program was started to limit them to 16,000 hectares in the “Waorani Protectorate”, where many still reside today, beset by poverty and marginalization. The impact of the oil and timber industries has been deep on this culture, and some groups have opted for voluntary isolation, such as the Tagaeri and Taromenane, who inhabit the middle and lower zone of the Yasuní Biosphere Reserve and the Intangible Zone, to the south of Waorani territory and Yasuní National Park.

The Tagaeri and the Taromenane maintain their cultural way of life in their traditional territories, but the situation is extremely fragile due to their vulnerability, lack of protection and the mismatch between them and the advance of Western civilization, which has resulted in the colonization of their territories, evangelization, illegal logging, the extraction of non-renewable natural resources and other legal activities, such as tourism and scientific research.

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Tagaeri is a name used to refer to the clan of Tagae, a Waorani warrior who chose isolation. One or various culturally close groups, with a very similar language and probably related by more distant kinship, are called Taromenane. These groups have been victims of repeated killings and their physical integrity is currently jeopardized by the oil industry, the trafficking of wood and animals, and incursions into their territory by the armed forces, colonizers, tourists, indigenous Kichwas and even some hostile Waorani. The territory which they occupy, the houses recorded and signs of their presence, according to reports by the Waorani themselves, loggers and oil workers, suggest that their population may range from 80 and 300 people.

Many Waorani describe the Taromenane as almost mythical creatures, giants, similar but different. They keep themselves hidden and even cook at night so as not to be located by the smoke. They do not pose a threat to anybody, except those who intrude on their isolation.

The Ecuadorian State has guaranteed the rights of indigenous peoples, especially the right to maintain, develop and strengthen their identity and traditions; not to be displaced from their lands; their ecosystems, knowledge and practice of traditional medicinal; the protection of ritual and sacred sites, plants, animals, minerals and ecosystems of vital interest<sup>1</sup>. Article 57 of the Constitution contains a specific mention – for the first time - of the peoples in voluntary isolation that inhabit Yasuní:

“The territories of peoples in voluntary isolation are ancestral homelands, irreducible and intangible, in which any kind of extractive activity is forbidden. The State shall adopt measures to safeguard their lives, respect their self-determination and will to remain in isolation, and shall ensure that their rights are respected. The violation of these rights constitutes the crime of ethnocide, which shall be classified by the law”.

The Tagaeri-Taromenane intangible zone has a territory of 758,000 hectares and was created to provide a minimal amount of space for the subsistence of isolated peoples, managing to curb extractive activities there. In 2008, the Ecuadorian government began to take action to protect the isolated peoples, constraining that activities that threaten them.

This box was written with the valuable collaboration of Laura Rival, Oxford University.

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1 Ecuadorian Government, 2007: National Policy on Peoples in Voluntary Isolation.

## BOX 6 OIL RESERVES IN THE YASUNÍ-ITT FIELD AND THE PREVENTED EMISSIONS OF CO<sub>2</sub>

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According to recent estimates<sup>1</sup> there are 846 million barrels of recoverable heavy crude oil, with a density of 14.7o API, in the ITT block. The oil exploitation of this field would mean the daily production of approximately 107,000 barrels for 13 years, with the wells continuing in their declining phase for a further 12 years. Even though the proven reserves in the ITT field total 944 million barrels, there may be additional reserves up to 1.53 billion barrels, the value of which cannot yet be ascertained as the 3D seismic prospecting has not been performed.

The Yasuní-ITT Initiative entails Ecuador making an internationally binding commitment to indefinitely keep the oil reserves of the ITT field underground, thus preventing the emission of 407 million tonnes of CO<sub>2</sub>, which would be released by burning the extracted oil. The real value of the emissions prevented is greater if one takes into account the effects of deforestation directly and indirectly associated with oil extraction, the emissions generated by oil exploitation and the construction of infrastructure, the methane produced by cattle in colonized areas, and other sources.

The amount of CO<sub>2</sub> emissions that would be prevented in ITT is considerable: surpassing the annual emissions of Brazil (332 million tonnes) and France (373 million tonnes), and the equivalent of Ecuador's emissions (29 million) over 13 years<sup>2</sup>. Using as a benchmark the current value of the European Emission Allowances (EUA) on the recent European market, i.e. US\$ 19.81 per tonne of CO<sub>2</sub>-eq, the economic value of the emissions prevented by the Initiative would amount to US\$ 8.07 billion<sup>3</sup>.

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1 Beicip Franlab (2004) Update on the ITT study. Upstream economic evaluation. Final report.

Project 202 150; Petroproducción (2009) ITT Project. (Powerpoint presentation, April).

2 UNDP (2008). Human Development Report. <http://hdr.undp.org/en/reports/global/hdr2007-2008/>

3 If the emissions prevented are distributed over a 13-year period, their current net value would be US\$ 5.49 billion, using a social discount rate of 6% per annum.

**BOX 7 THE CONSERVATION OF BIODIVERSITY**

Biodiversity does not only have an intrinsic value but also constitutes the very origin of our existence as a species. The benefits of ecosystems in terms of regulating the weather, providing water, food, wood, pharmaceutical resources and other renewable goods directly benefit 1.6 billion people worldwide, mainly in developing countries<sup>1</sup>.

Tropical rainforests make up the greatest reserve of biodiversity on the planet, harbouring 28% of all land vertebrate species and an even greater percentage of invertebrates and other living species<sup>2</sup>.

The Amazon is the largest tropical rainforest in the world. Ecuador, which spans part of the Amazon rainforest and also has 16 distinct ecosystems with a wide variety of climates, ranks first in the planet for the number of vertebrates per surface unit – second counting only endemic species – and holds top positions in terms of the absolute number of amphibian, bird and butterfly species<sup>3</sup>.

Human activity in the last 50 years has dealt a severe blow to biodiversity, in particular in tropical rainforests. The current rates of species extinction are 1,000 times higher than those from natural causes<sup>4</sup>, posing the greatest threat to planetary biodiversity since the extinction of dinosaurs 65 million years ago. The worldwide deterioration in biodiversity between 1970 and 2005 has been estimated at 30%, based on population counts of a high number of representative species. This problem is even more serious in tropical ecosystems, where the reduction reaches 51% (see Graph 1).

Global warming will aggravate this situation. According to Stern<sup>5</sup>, a global temperature increase of between 1° and 2°C – considered moderate – could lead to the extinction of 15% -40% of existing species. In the specific case of the Amazon, without effective measures, global warming and deforestation could turn 30% - 60% of the Amazon region's tropical forest into savannah or grasslands, with a far-reaching impact on the world's climate and biodiversity<sup>6</sup>.

The Yasuní-ITT Initiative promotes not only the conservation of Yasuní National Park but also that of Ecuador's 43 other protected areas and other remaining ecosystems, which account for at least 19% of Ecuadorian territory.

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1 World Bank (2003). Biodiversity and Forests at a Glance. <http://siteresources.worldbank.org/>

2 World Resources Institute (WRI) (2005). Millennium Ecosystem Assessment. Ecosystems and Human Well-being: Biodiversity Synthesis. Washington, D.C.

3 Josse, Carmen (ed.) (2001). La Biodiversidad del Ecuador: Informe 2000. Quito, MAE, EcoCiencia, UICN.

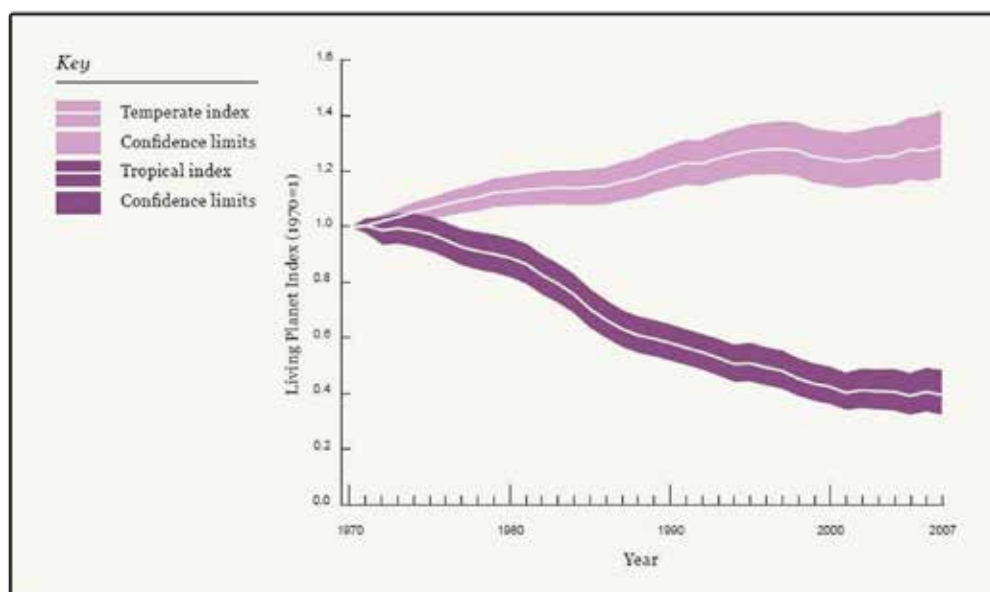
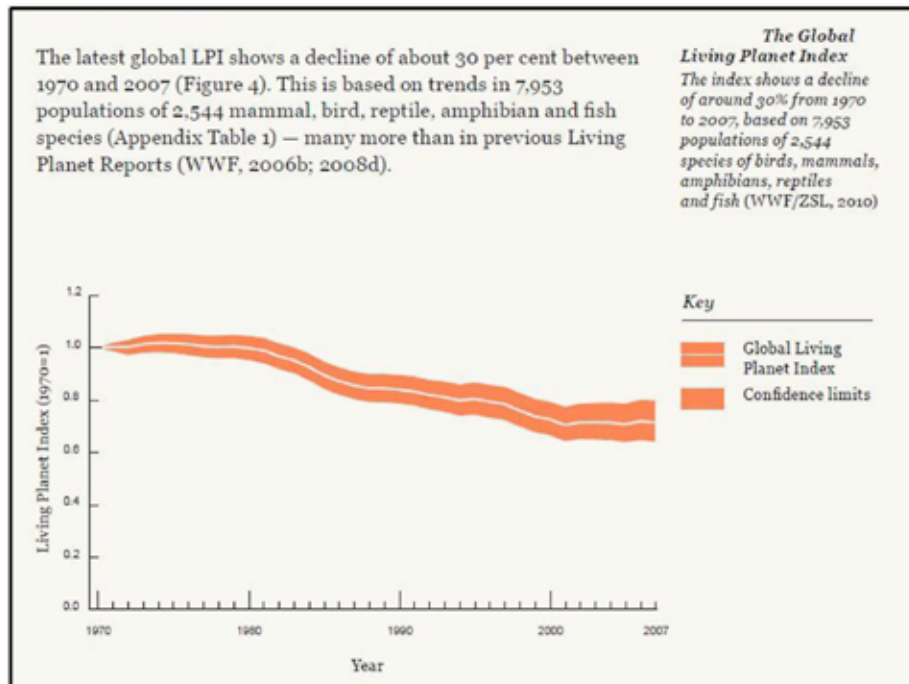
4 WRI. Ob. cit.

5 Stern, Nicholas (2007). Stern Review: The Economics of Climate Change. 2007. <http://webarchive.nationalarchives.gov.uk/>.

6 WWF (2008) Climate Change in the Amazon. December ([www.panda.org](http://www.panda.org)); WWF (2006) "Climate Change Impacts in the Amazon" in Review of Scientific Literature. March ([www.panda.org](http://www.panda.org)).



## ■ Graph 1: Living Planet Indices: 1970-2005



**Note:** The indices are based on 7,953 population counts of 2,544 mammal, bird, reptile, amphibian and fish species worldwide since 1970.

**Source:** WWF. Living Planet Report, Gland: WWF International, 2010.  
([www.panda.org/about\\_our\\_earth/all\\_publications/living\\_planet\\_report/](http://www.panda.org/about_our_earth/all_publications/living_planet_report/)).

**BOX 8 TOWARDS HUMAN AND EQUITABLE DEVELOPMENT: OVERCOMING POVERTY**

Current global production can satisfy the basic needs of all mankind. In fact, global income per capita is US\$ 6,954<sup>1</sup>, eight times higher than the poverty line, which would easily make it possible, given an appropriate redistribution of wealth, to eliminate world poverty. However, according to the most recent data from the World Bank, 2.6 billion people, 40% of the world's population, are still affected by poverty and, among those, 1 billion live in extreme poverty<sup>2</sup>.

Even though poverty levels have fallen since 1981, with the sharpest drop taking place in China, headway in Latin America has been moderate and Africa is suffering from serious stagnation. According to the UNDP, the prospects of meeting the Millennium Development Goals for 2015, which include halving extreme poverty based on 1990 levels, are limited, with the exceptions of China and India. Except for these two nations, the social inequality between countries has increased, with a rise in the Gini coefficient<sup>3</sup> from 0.47 in 1980 to 0.52 in 2000. Moreover, the percentage of income per person in Africa and Latin America, compared to industrialized countries, declined steadily from 1980 to 2001. In Sub-Saharan Africa this figure fell from 3.3% to 1.9%, and in Latin America from 18% to 12.8%<sup>4</sup>. The increase in social inequality in the world has been exacerbated by globalization.

In addition to inequality between countries, there are also gaping social differences between people within countries. Latin America is considered to be the region with the highest levels of social inequality in the world and evidence confirms that this trend has been more pronounced in recent decades. The Gini coefficient for income per person in Latin America rose from 0.48 in the 1970s to 0.52 in the 1990s<sup>5</sup>.

**A rigorous study by the United Nations University<sup>6</sup> concludes that:**

1. The richest 1% of the world's population owns almost a third of global wealth (31.6%), and the richest 10% control more than two-thirds (71%).
2. At the other extreme, the poorest half of the world population possesses just 3.7% of the wealth and the poorest 10% have access to a mere thousandth of the world's goods.

From this angle and referring specifically to Ecuador, the Yasuní-ITT Initiative proposes giving priority to sustainable human development in all the areas where the Initiative's projects are to be implemented, through investment in education, health, housing and the creation of productive employment in sustainable projects. All of this is to be in harmony with nature, in other words getting away from the current development model based on the exploitation of oil and forests. The proposal will therefore facilitate the fulfilment of the Millennium Development Goals.

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1 World Bank (2003). Biodiversity and Forests at a Glance. <http://siteresources.worldbank.org/>

2 World Resources Institute (WRI) (2005). Millennium Ecosystem Assessment. Ecosystems and Human Well-being: Biodiversity Synthesis. Washington, D.C.

3 Josse, Carmen (ed.) (2001). La Biodiversidad del Ecuador: Informe 2000. Quito, MAE, EcoCiencia, UICN.

4 WRI. Ob. cit.

5 Stern, Nicholas (2007). Stern Review: The Economics of Climate Change. 2007. <http://webarchive.nationalarchives.gov.uk/>

6 WWF (2008) Climate Change in the Amazon. December ([www.panda.org](http://www.panda.org)); WWF (2006) "Climate Change Impacts in the Amazon" in Review of Scientific Literature. March ([www.panda.org](http://www.panda.org)).

# The capital fund and its guarantee

The minimum capital contribution required must be equal to half the earnings that Ecuador would receive if it were to extract the oil from the Yasuní-ITT field. The investments made will constitute the guarantee of the Fund and, in the future, it would be advisable for the value of the capital to be close to that of the stored carbon dioxide so as to deter future governments from returning the funds and extracting the oil.

In the unlikely event of a future government deciding to exploit the oil in the Yasuní-ITT field, the guarantee of the YGCs would be activated and the Fund would return the contributions as investments, suspending capital investment in energy projects and the payment of interest to Ecuador. This would take place five years prior to the commencement of oil production in the field, given the time needed for oil exploration and investment.

Oil prices have fluctuated greatly in the past and are very difficult to predict. To avoid uncertainty, the decision was made to estimate the amount of capital that would cover the opportunity cost, using current prices of carbon credits and updating this estimate every year.

Under current conditions, with the reference WTI price of crude at US\$ 76.38 (September 14, 2010), the earnings that the State would receive by exploiting the ITT crude oil would have a present value of US\$ 7.61 billion, applying an annual social discount rate of 6%.

The market value of the avoided CO<sub>2</sub> emissions is a similar sum, US\$ 8.07 billion, if one uses the current EUA prices on the European market (ETS) as a reference. Its current net value is thus US\$ 5.49 billion, with an annual social discount rate of 6%.

The benefits that the State will receive from the interest paid on this fund, to be earned in perpetuity and through the additional prevented and reduced emissions from conservation, reforestation and the development of clean energy, have a present value of US\$ 7.88 billion. US\$ 5.92 billion of this figure comes from the interest on the fund while US\$ 1.96 billion is earned from indirect benefits. Therefore, including its indirect benefits, the Initiative is favourable for Ecuador, compared to the oil extraction option.



9 On September 14, 2010, CERs were trading at US\$ 17.75 per metric tonne of CO<sub>2</sub>. The EUA emission allowances were valued at US\$ 19.82 per tonne. The value of US\$ 8.07 billion is calculated on the 407 million tonnes of CO<sub>2</sub> emissions prevented by not exploiting the oil in the ITT field.

10 It is estimated that the total fund will be obtained over 13 years, with annual contributions equivalent to 31.3 million metric tonnes of CO<sub>2</sub>. The fund's annual interest rate is assumed to be 7%, and the annual discount rate 6%, similar to that used to calculate the current value of oil exploitation.



**BOX 9 OIL IN THE ECUADORIAN ECONOMY**

Since 1972 oil has been the mainstay of the Ecuadorian economy and continues to play a fundamental role. At present, hydrocarbons account for 53% of the country's total exports and oil revenues made up an average of 26% of the State revenue from 2000 to 2007. This dependence on oil has, however, brought about serious economic, social and environmental difficulties. Per capita income growth from 1982 to 2007 was a mere 0.7% per annum; poverty affects 38% of the country's population, with 13% living in extreme poverty. Fifty-three percent of the workforce is underemployed, while unemployment stands at 8%. Oil exploitation has contributed to significant environmental degradation in the Amazon region. Each year 198,000 hectares are deforested, at an annual rate of 1.4%, one of the highest in Latin America.

As a rule, numerous studies confirm the serious limitations in achieving appropriate development faced by countries whose economies are based on oil exports<sup>1</sup>.

The future vulnerability of the Ecuadorian economy is even greater as the proven oil reserves will only allow for a further 30 years of exploitation. The country needs to embark on transition to a new development strategy, based on its bountiful biodiversity and rich cultural heritage, and ensure that this is sustainably maintained. The Yasuní-ITT Initiative represents the tipping point towards this historic call.

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1 Berry, Albert (2008) "Growth, Employment and Distribution Impacts of Minerals Dependency: Four Case Studies" in South African Journal of Economics, vol. 76: S2 August. Humphreys, Macartan; Sachs, Jeffrey and Stiglitz, Joseph E. (2007) Escaping the Resource Curse. New York, Columbia University Press. Sachs, Jeffrey (1995) "Natural Resource Abundance and Economic Growth", National Bureau of Economic Research, Working Paper 5398. Thorp, Rosemary (2009) "Dilemmas and Conflicts in the Mining Sector: What History Teaches", keynote address on Rethinking Extractive Industry Conference. York University, Toronto, March 5-7.

# Sources of capital

Contributions to the international fund to keep the ITT reserves underground will come from voluntary donations, which may be from:

Voluntary contributions may come from:

**a) Governments of partner countries** and international multilateral organizations:

a. Contributions from emission allowance auctions, carbon taxes or other funds for climate change mitigation.

b. Other contributions.

c. Debt-for-conservation swaps. Specific projects in renewable energy sources, prevention of deforestation, conservation, and social development.

**b) Contributions** from local governments and civil society organizations.

**c) Contributions** from socially and environmentally responsible companies.

**d) Contributions** from citizens worldwide, including Ecuador.

In exchange for all of these contributions, the Ecuadorian State will guarantee to maintain the ITT oil reserves underground indefinitely. The State will issue Yasuní Guarantee Certificates (YGCs) for the nominal value of the contributions, up to a total of 407 million non-emitted tons of carbon dioxide. The real backing for the guarantee will be the value of the investments made with the capital fund.

## Participation of YGCs in the current mechanisms for mitigating climate change.

The European Union still leads the way in reducing greenhouse gas emissions. Its targets go beyond those agreed in the Kyoto Protocol (to reduce emissions by 2012 to 5.2% below their 1990 levels) and it proposes reductions of 20% by 2020 and 50% by 2050. These objectives can be bolstered, within the Framework Convention on Climate Change, by the participation of developing countries, through a system of shared and differentiated responsibilities<sup>11</sup>.

The European market for Carbon Credits (ETS) has grown considerably and accounts for 70% of the world total. The value of one metric tonne of CO<sub>2</sub> has fluctuated between 12 and 30 Euros since 2006 and the volume traded reached four gigatons<sup>12</sup> in 2008, equivalent to US\$ 118 billion, almost four times the 2006 value (see Graph 2).

In 2008 the average price per tonne of CO<sub>2</sub> on the ETS market was US\$ 32.5. However, on the voluntary market, the prices and the volumes traded are substantially lower<sup>13</sup>.



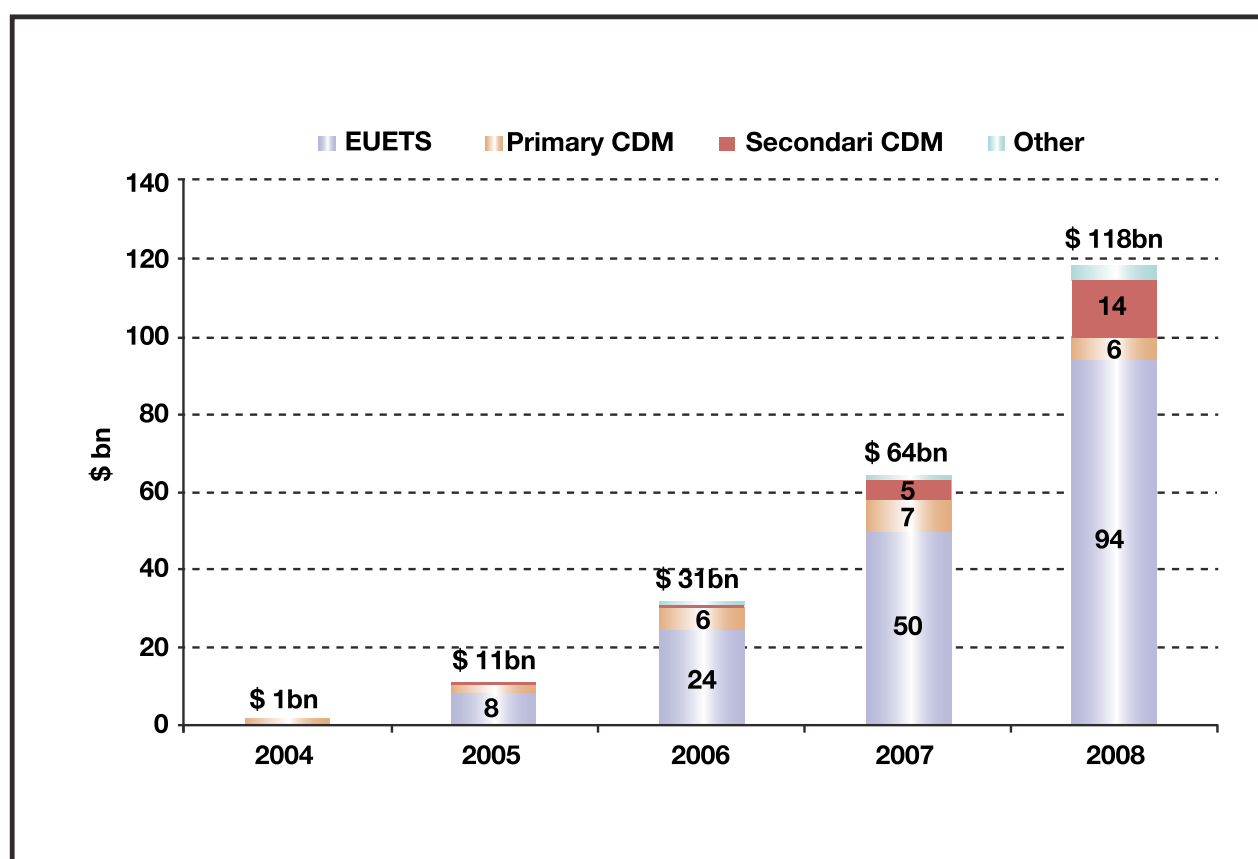
*Upland tree, Yasuní National Park*

11 European Commission (2007). EU Action against Climate Change: Working with Developing Countries to Tackle Climate Change. Brussels.

12 A gigaton is a billion tonnes.

13 <<http://www.environmentalleader.com/2008/07/10/carbon-market-worth-59-billion-in-h1-2008/>>, <<http://www.ecx.eu/>>.

## ■ Graph 2 : Carbon market 2005-2008



Source: New Carbon Finance

Ecuador proposes an innovative mechanism for reducing greenhouse gas emissions: refraining from exploiting fossil fuel reserves in areas of high environmental sensitivity in megadiverse developing countries. This new path has not been contemplated within the current carbon-market regulations, in force for CDMs.

Ecuador proposes to countries supporting the Yasuní-ITT Initiative, contributions to the Yasuní-ITT international fund, with resources that may come from future auctions of EU emission allowances (EUA) (EU directive April 23, 2009), from taxes on the emission of CO<sub>2</sub>, like those created in Sweden and Slovenia, levied on transport and agriculture, from UNFCCC Fast Start Funds, or from other sources. Contributions could also come from debt-for-conservation swaps or the condoning of foreign debt. Other contributions, linked with specific goals of the Initiative, are also feasible.

A new way of reducing emissions will thus be established; if successful, it could be applied to

other developing countries in the future, which are also megadiverse and choose to indefinitely halt the extraction of fossil fuels in areas of high biological or cultural sensitivity.

## Contributions by country

Ecuador expects the main contributions from industrialized countries, listed in Annex I of the Kyoto Protocol. Table 1 has been drawn up by dividing the overall expected contribution per country, based on its GDP, over a 13-year period. This does not exclude other countries.



**Table 1 : Main expected contributions by country**

Country	2005 GDP (Billion US\$)	Per capita GDP (US\$)	% total GDP	Total contribution (million US\$)	Annual contribution over 13 years
United States	12417	41890	36.98	2983.2	229.48
Japan	4534	35484	13.50	1089.3	83.80
Germany	2795	33890	8.32	671.5	51.65
United Kingdom	2199	36509	6.55	528.3	40.64
France	2127	34936	6.33	510.9	39.30
Italy	1763	30073	5.25	423.5	32.57
Spain	1125	25914	3.35	270.2	20.78
Canada	1114	34484	3.32	267.6	20.58
Russian Federation	764	5336	2.27	183.5	14.11
Australia	733	36032	2.18	176.0	13.54
Netherlands	624	38248	1.86	150.0	11.54
Belgium	371	35389	1.10	89.1	6.85
Switzerland	367	49351	1.09	88.2	6.78
Sweden	358	39637	1.07	85.9	6.61
Austria	306	37175	0.91	73.5	5.66
Poland	303	7945	0.90	72.8	5.60
Norway	296	63918	0.88	71.0	5.46
Denmark	259	47769	0.77	62.2	4.78
Greece	225	20282	0.67	54.1	4.16
Ireland	202	48524	0.60	48.5	3.73
Finland	193	36820	0.58	46.4	3.57
Portugal	183	17376	0.55	44.0	3.39
Czech Republic	124	12152	0.37	29.9	2.30
Hungary	109	10830	0.33	26.2	2.02
Luxembourg	37	79851	0.11	8.8	0.67
Slovenia	34	17173	0.10	8.3	0.64
Iceland	16	53290	0.05	3.8	0.29
<b>Total</b>	<b>33575</b>		<b>100.00</b>	<b>8066.7</b>	<b>620.52</b>

**Note:** Some small industrialized countries in Annex I of the Kyoto Protocol are not included in the table.

**BOX 10****ADDITIONAL EMISSION REDUCTIONS FINANCED BY THE YASUNÍ-ITT FUND:  
VIRTUOUS CIRCLES OF THE INITIATIVE**

The capital of the Trust Fund will be mainly invested in fixed-income shares (preferred shares with 7% guaranteed return, in sustainable electricity generation projects: hydroelectricity, geothermal, wind and solar power).

The interest earned on these investments will finance projects in:

1. Conservation and prevented deforestation in at least 19% of national territory.
2. Reforestation and afforestation of 1 million hectares.
3. Efficiency improvements in national energy consumption.
4. Social development and sustainable production for the populations living in the areas of influence of the projects, particularly in the Amazon region.
5. Scientific and technological research in topics related to the Initiative.

The first three objectives directly reduce greenhouse gas emissions and could generate CDM projects, currently recognized by the Kyoto Protocol; they could alternatively be registered as deforestation prevention projects, within REDD mechanisms, proposed in post-Kyoto talks.

According to Silvestrum<sup>1</sup> consultancy firm (2009, p. 41), the projects would prevent or reduce the emission of 820 million tonnes of CO<sub>2</sub>, not counting the contribution of changes in the supply and demand of energy:

Activity	Potential mitigation in 20 years (CO <sub>2</sub> in million tonnes)
Afforestation and reforestation	100
Prevented deforestation	600
Forest Partner Program	120
<b>Total</b>	<b>820</b>

The current deforestation rate in Ecuador has been estimated at 198,000 hectares per year. The Project proposes to gradually eliminate deforestation over a period of 30 years. The prevented emissions total 785 million tonnes of CO<sub>2</sub>, with a current value of US\$ 1.37 billion, at a price of US\$ 5 per MT.

The progressive elimination of thermoelectric power generation in Ecuador and its replacement with renewable sources (hydroelectric, geothermal, wind and solar) will prevent 43 million tonnes of CO<sub>2</sub> emissions and has a current value of US\$ 278 million, at a price of US\$ 17.66 per tonne. The increase in energy efficiency will bring about additional reductions and thus the Yasuní-ITT Initiative could contribute, all told, at least a further 1 billion tonnes of reduced or prevented emissions over the coming 30 years.

Some of the Initiative's contributions could go directly to specific projects along the above-mentioned lines, acquiring the form of credits for investment in mitigation, as proposed by international consultants. To sum up, the Initiative proposes that 407 million tonnes of CO<sub>2</sub> stay underground and, with the return on the international contributions, it would manage to mitigate over 820 million additional tonnes, thereby tripling its effectiveness.

<sup>1</sup> Silvestrum, (2009). "Analysis of the ITT-Yasuní Initiative vis-a-vis Carbon Markets". Semi final version.

**BOX 11**

**HOW WILL THE CAPITAL OF THE YASUNÍ-ITT FUND BE INVESTED?**

The investments of the Yasuní-ITT fund must have a minimum reasonable risk and earn interest that will be used on the development projects foreseen in the Initiative. Projects that fit in with the action lines contemplated in the Initiative will be eligible to receive these investments, providing that they imply a measured risk, offer conservative profitability and, at the same time, contribute to the sustainable development of the country.

Future investments in hydroelectric, geothermal, wind and solar power projects, where Ecuador currently has high potential for the development of renewable sources, would meet these criteria. The Yasuní-ITT fund could acquire preferred shares in the projects, if these meet the necessary conditions for investment. This type of share offers a predetermined fixed income, regardless of the company's profits. The fixed-income rate to be agreed will depend on the characteristics of the project, hold minimum risk and allow the State to safely earn the interest on the fund. At the same time, these investments will contribute to the sustainable development of the country and spur new carbon dioxide reductions.

The administration of the international trust fund has been assumed by the United Nations Development Programme (UNDP).











*The huge ceiba trees develop roots*



**BOX 12 TOWARD A SUSTAINABLE DEVELOPMENT MODEL IN ECUADOR**

The Ecuadorian economy depends on oil and current proven reserves allow for between 25 and 30 years of future exploitation. The development of renewable sources of energy has lagged and, as a result, half the electricity in the country is generated by oil and gas.

In 2007, oil production fell for the first time by 5.6%. In response to the increase in imports and internal consumption, net exports fell by 20% in volume from 2006 to 2009. This illustrates the beginning of the inevitable decline in the country's oil-producing capacity. In fact, State production in the mature fields of Petroecuador (Auca, Sacha, Shushufindi and Lago Agrio) dropped from 280,000 barrels per day in 1994 to around 170,000 bpd in 2007 (see Graph 3), but this fall has been partially compensated by the growing production of heavy crude in the Amazon region.

The country's proven oil reserves currently total 4.16 billion barrels. Including probable reserves, this figure reaches 4.6 billion. Various projections show that, even in optimistic scenarios which assume the discovery of new deposits, Ecuador will stop exporting oil in 28 years and stop producing it in 35 years. Graph 4 shows the Ministry of Energy's projections for oil production by field.

This declining phase can be initially mitigated or neutralized by incorporating new heavy crude oil fields or improving the recovery of light crude from mature fields. Nevertheless, exports will cease within 15 to 28 years.

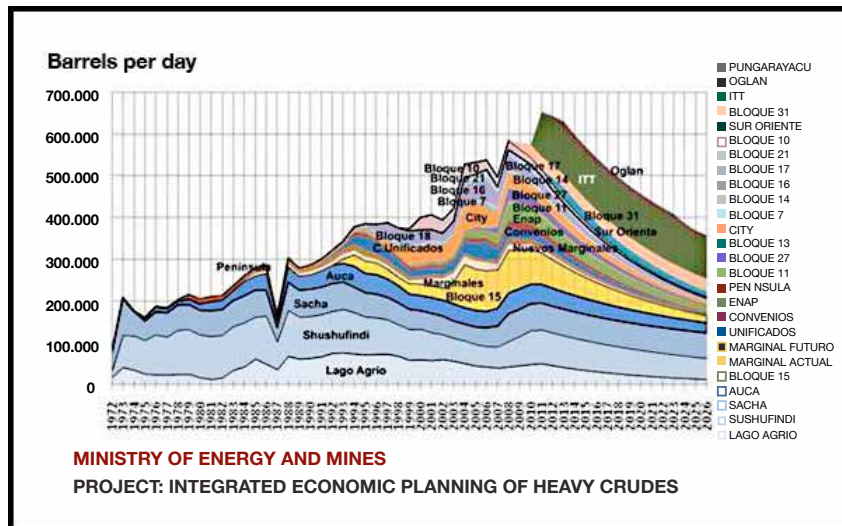
During this period, the energy transition from oil to renewable systems must happen. Over the past 25 years, investment in renewable energy sources has been weak and this has created an increasing dependence on oil and its derivatives. Today, hydroelectric plants supply 43% of Ecuador's energy needs; 10% is imported from Colombia and Peru, and 47% comes from thermoelectric plants (Graph 4).

In the last four years, there has been a return to public investment in hydroelectric projects, and the first steps have been taken towards a future expansion of renewable sources, like wind, geothermal and solar power.

From a broader perspective, it can be said that the development models implemented in Ecuador have been disproportionately based on the extraction of natural non-renewable resources, in conditions of limited sustainability and with far-reaching negative effects on ecosystems. These models have furthermore reinforced a highly unequal social structure and have failed to meet the basic needs of most of the population. The Yasuní-ITT Initiative is encouraging the beginning of a transition toward a development strategy that is more equitable on the social front and more sustainable in environmental terms.

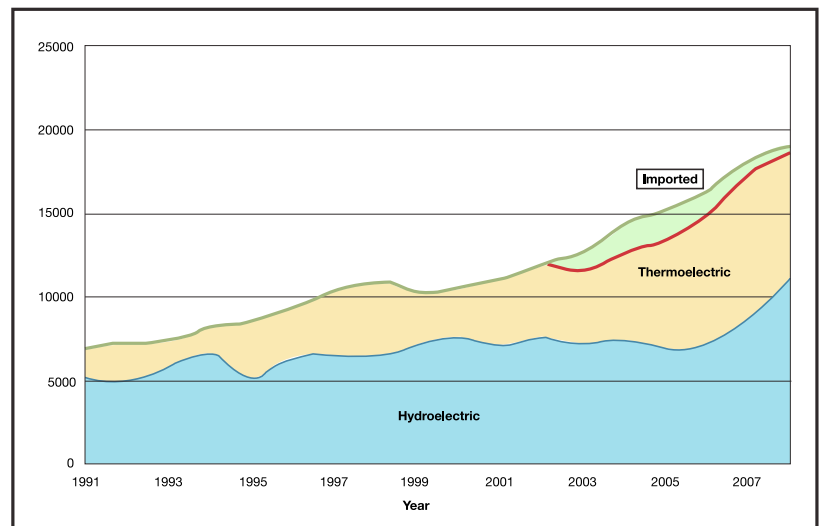


### Graph 3 : The production potential of ecuadorian oil by fiel



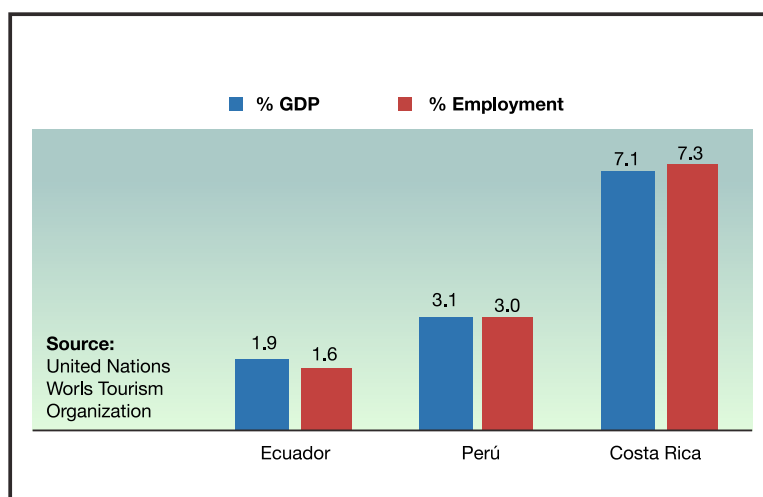
Source: Ministry of Energy and Mines, 2007.

### Graph 4 : Electricity Supply in Ecuador : 1991-2008



Source: CONELEC. <www.conelec.gob.ec>.

### Graph 5 : Tourism Share in GDP and Employment: 2006



Source: World Economic Forum. The Travel & Tourism Competitiveness Report 2007. Geneva: World Economic Forum, 2007.  
CONELEC. <www.conelec.gob.ec>.

## BOX 13 THE YASUNÍ-ITT INITIATIVE: A REPLICABLE PROJECT

The Yasuní-ITT initiative is pioneering a mechanism to prevent emissions of greenhouse gases with the participation of developing countries, keeping fossil fuel reserves underground indefinitely in areas of high environmental and/or cultural fragility.

Countries that could qualify for this new mechanism must meet the following criteria:

1. Be developing countries. One of this mechanism's main attractions is that it seeks to simultaneously achieve three aims: to combat climate change, maintain biodiversity, and reduce poverty and inequality. The Initiative promotes sustainable development.
2. Be megadiverse countries located between the Tropics of Cancer and Capricorn, with the highest density of tropical forests. These countries hold most of the planet's biodiversity.
3. Have significant fossil fuel reserves in areas of high biological and cultural sensitivity.

Countries that meet all these criteria include Brazil, Colombia, Costa Rica, Democratic Republic of Congo, Ecuador, India, Indonesia, Madagascar, Malaysia, Papua New Guinea, Peru, Bolivia, the Philippines and Venezuela.

The United Nations Environment Programme (UNEP) has considered 19 countries in the world to be "megadiverse".

## BOX 14 OIL AND DEVELOPMENT: AN UNEASY ALLIANCE

Although, at first glance, it would seem that countries that export oil or mineral resources have relatively better chances of achieving development compared to countries lacking such resources, studies have found that oil exportation has a negative impact on the development outlook of a country.

A comparative study by the World Bank<sup>1</sup> demonstrates that hardly any oil-exporting country has managed to efficiently channel the resources earned from high oil prices between 1973 and 1985 into its own development. By and large, results were disappointing. The "Dutch disease" theory holds that the effects of export booms associated with a single product, like oil, turn out to be negative because economies do not manage to diversify and are vulnerable when the favourable external conditions come to an end.

Using empirical data on the annual performance of 97 developing countries between 1971 and 1989, Jeffrey Sachs<sup>2</sup> found a negative and statistically significant correlation between the exportation of natural resources (mainly oil, minerals and primary agricultural products) and the economic growth obtained. In other words, countries specializing in exporting oil, minerals and other primary goods grow more slowly than other developing economies.

Albert Berry<sup>3</sup>, applying a comparative analysis of Indonesia, Venezuela, Chile and Nigeria, found that oil and mineral exporting countries have considerable difficulties achieving satisfactory results in employment and the distribution of income. Rosemary Thorp<sup>4</sup>, a renowned specialist in the economic history of Latin America, holds that, as a rule, mining and oil-producing countries have encountered serious problems in their institutional development, and that this weakness has in turn affected their chances of long-term development.

In general, these and other studies reveal that countries which are highly dependent on the exportation of oil or minerals are vulnerable and fragile, and have seen relatively poor results in terms of economic growth, institutional development, employment and equality.

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1 Gelb, Alan and associates (1988). *Oil Windfalls: Blessing or Curse?* New York, Oxford, Oxford University Press.

2 Sachs, Jeffrey (1995). "Natural Resource Abundance and Economic Growth". National Bureau of Economic Research, Working Paper 5398.

3 Berry, Albert (2008). "Growth, Employment and Distribution Impacts of Minerals Dependency: Four Case Studies" in *South African Journal of Economics*, vol. 76: S2, August.

4Thorp, Rosemary (2009). "Dilemmas and Conflicts in the Mining Sector: What History Teaches". Keynote Address, Rethinking Extractive Industry Conference. Toronto, York University, March 5-7.

## **BOX 15 THE ENVIRONMENTAL BENEFITS OF YASUNÍ NATIONAL PARK**

Biodiversity lies at the heart of the invaluable ecosystem services provided by primary forests, such as the regulation of the global climate and water sources. Its potential for use in health-related research has been widely recognized. As such, its existence constitutes an invaluable asset. In light of the accelerated extinction of species on Earth – unprecedented in the last 65 million years – conserving the biodiversity of Yasuní National Park is an unarguable priority.

The environmental benefits of Amazon ecosystems – and their enormous biodiversity – are immeasurable from an economic point of view, as pointed out by Martinez Alier<sup>1</sup>. In the case of Yasuní National Park, some attempts have been made to put a value on them. Earth Economics<sup>2</sup> has estimated that its environmental benefits would have a net present value of 9.89 billion dollars. Larrea<sup>3</sup>, meanwhile, reckons that the environmental costs of oil production in ITT would be at least US\$ 1.25 billion in present terms. This latter estimate includes only the effects of deforestation, the loss of ecotourism potential and the non-timber services of the rainforest, excluding a number of external factors associated with oil exploitation, for instance spills, local pollution, effects on the population's health, etc.

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1 Presentation to the seminar on the Yasuní-ITT model held November 21-23, 2007, at Simon Bolivar Andean University, in Quito.

2 See <http://www.eartheconomics.org/Yasuni2007/index.html>

3 Presentation at the above-mentioned seminar.

**BOX 16 OIL EXTRACTION PROJECT IN THE ITT FIELD**

Ecuador has decided to keep the ITT field reserves underground indefinitely if it secures an international contribution of at least half the potential revenue from exploiting the oil. Several detailed studies on the option of exploiting the oil in these fields have been conducted and are summarized below.

According to information currently available, the proven and probable reserves of the ITT field total 950 million barrels of oil, and this figure could increase with 3D seismic exploration, since the possible reserves are estimated to reach 1.53 billion. With stabilized production, 846 million barrels could be recovered from the currently proven reserves<sup>1</sup>.

The oil exploitation of the ITT field would presuppose a production of about 107,000 barrels per day over an estimated period of 13 years, after which the wells would enter their declining phase until falling, a further 12 years later, to 56,000 bpd. The high density of the crude (14.7° API) makes it difficult to transport through existing pipelines, and this, together with the high sulfur content, reduces the prices. In order to avoid these complications, a synthetic crude conversion plant has been planned to improve the density, which would have to be set up in the ITT block before transportation. This plant requires investment in capital and also the construction of a high-power thermoelectric plant. The resulting crude, of 18° API, can then be conveyed through the heavy crude pipeline and subsequently processed in the future oil refinery envisaged for Manabí Province. Offshore technologies have been contrived to avoid the need to build roads, while minimizing deforestation and environmental impact.

Petroecuador has assessed the creation of a joint-venture company with an international firm for the oil extraction, in which the State's profit share would be at least 65%. The estimated capital investment would be US\$ 3.5 billion, with an operating cost of US\$ 12.32 per barrel and a transportation cost of US\$ 2.60 per barrel. The thermoelectric power generation and the synthetic crude conversion plant would consume at least 12% of the fuel produced.

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**1 Sources:** Petroproducción (2009). ITT Project. Powerpoint Presentation (April). Beicip Franlab (2004). Updated ITT Study. Upstream Economic Evaluation, Final Project Report. 202 150.



# The Yasuní-ITT Initiative: Questions and answers

## The benefits

### 1. How does the Yasuní-ITT Initiative work?

**a. The Government of Ecuador commits to indefinitely** refraining from exploiting the oil reserves of the ITT field within Yasuní National Park, thus guaranteeing the conservation of its unique biodiversity and respect for the indigenous peoples living there in voluntary isolation.

**b. The government will receive, in exchange, a joint international** contribution equivalent to at least of 50% of the profits that it would receive were it to exploit the reserves.

### 2. What are the direct benefits of the Yasuní-ITT Project?

**a. The non-emission of 407 million tonnes of CO2 into the atmosphere**, creating a new method of mitigating greenhouse gas emissions, and the non-exploitation of oil and gas in areas of high social and environmental sensitivity in developing countries.

**b. The preservation of the enormous biological wealth of Yasuní National Park**, considered by UNESCO to be unique in the world, along with the 44 remaining protected areas and additional pristine ecosystems in Ecuador, which comprise one of the largest biodiversity reserves on the planet.

**c. Respect for the indigenous cultures of the peoples living** in voluntary isolation within Yasuní Park.

**d. Social development in the project's area of influence**, with programs for education, health and sustainable employment.

**e. Support for Ecuador's transition from an extractive economy**, based on oil production, to a sustainable development model, with the

widespread use of renewable energy sources, respect for biodiversity and social equality. The CO2 emissions that will be reduced and prevented through the conservation of ecosystems, reforestation and the development of clean energy sources will reach one billion tonnes over the next 30 years.

### 3. Are there any additional or indirect benefits?

Yes. The reinvestment of the contributed funds in renewable energy sources will reduce or eliminate the generation of electricity from oil derivatives, which currently accounts for 47% of all electric power in the country. In this way, future CO2 emissions will be even further reduced. The conservation of protected areas and the reduction of deforestation in Ecuador is a second benefit, in addition to the mitigation of climate change and the preservation of biodiversity. The social programs will, moreover,

*Barizo, clown monkey (Saimiri sciureus)*



bolster education, health care, and sustainable and productive job creation in the project's areas of influence, which span a significant part of Ecuador. There is one further benefit: the capital funds can be invested in hydroelectric and geothermal power projects with guaranteed profitability.

**4. The Yasuní Initiative seeks to protect Yasuní National Park, which is extraordinarily diverse, but oil is currently being exploited within the park, causing obvious damage and threatening the survival of the two indigenous peoples living in voluntary isolation.**

The proposal does not only set out to protect the ITT field, which occupies nearly 200,000 hectares of Yasuní National Park (23% of the total surface area), but also includes a commitment to monitor the rest of the Park, where there is inherited oil activity, and offers to effectively conserve the further 44 protected areas (occupying a total of 4.8 million hectares, 19% of the total surface area of Ecuador), which house the highest biological diversity per surface area in the world. The proposal also allows for the protection of other remaining ecosystems not located in the officially protected areas. Total protected forest will reach up to 35% of the national land.

This will also allow the Ecuadorian government to concentrate on improved recovery from existing wells, instead of engaging in new exploration in areas of high environmental sensitivity, which is extremely damaging to the environment.

5. What public participation will there be in designing the initiative and in deciding which

projects to fund? How will the groups in voluntary isolation take part?

The initiative has several stages. The first is to obtain international acceptance for this innovative proposal.

The second is to secure the political support of Ecuadorian society. The following steps are part of this stage:

**a. Publicizing the Initiative throughout the country** among various social groups (indigenous and Afro-Ecuadorian communities, academia, the productive sector, and local governments) to gain their support and active participation.

**b. Designing mechanisms through** which Ecuadorian citizens can contribute economically to the Initiative.

**c. Consulting indigenous peoples** of the Amazon region to ensure that the needs of the groups living in Yasuní National Park are satisfied, without affecting the conditions of isolation of the Tagaeri and Taromenane.

**d. Creating citizen watchdog mechanisms in order to monitor** compliance with the commitments acquired through this Initiative.

**e. Appointing a citizen representative to sit on the Board** of Directors of the international Trust Fund.

**f. Establishing communication and linkages with other citizens** of the world interested in supporting this Initiative from their own countries.

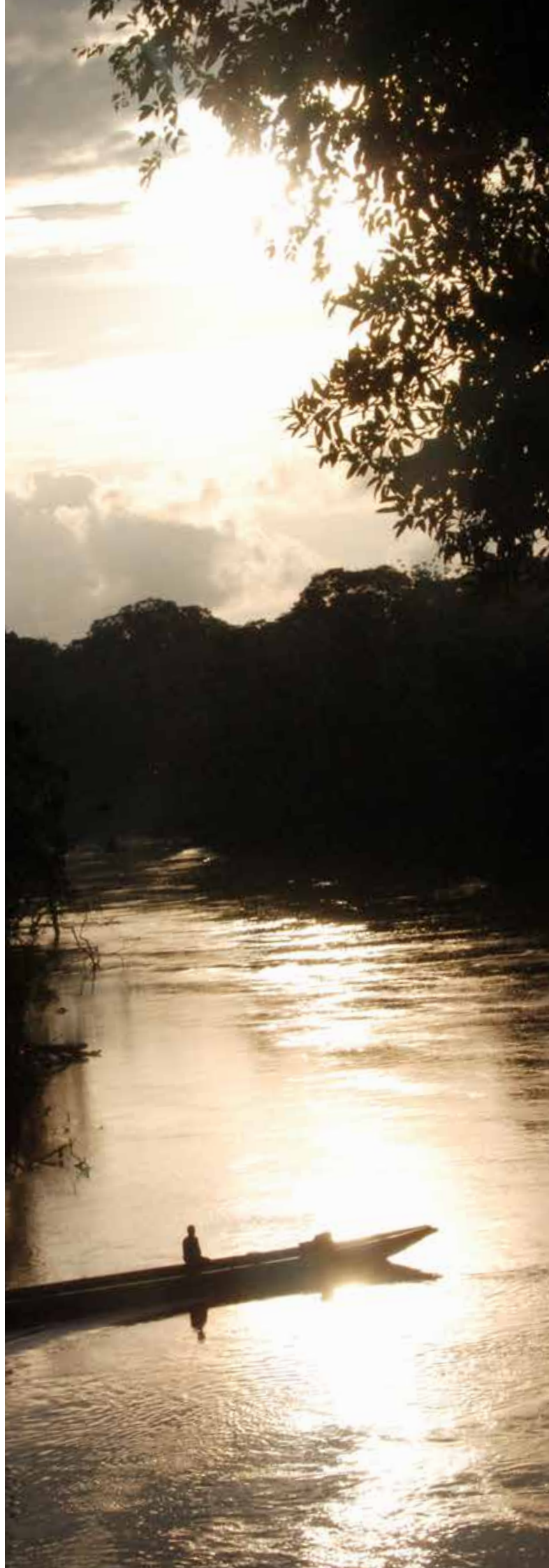




# Support

## 6. Who supports the Yasuní-ITT Project?

The project has received the official support of various internationally recognized individuals, including; Muhammad Yunus, Desmond Tutu, Jody Williams and Rigoberta Menchú, Nobel Peace Laureates, Rita Levi Montalcini, Nobel Laureate in Medicine, ex-presidents Mikhail Gorbachev (former USSR), Felipe González (Spain), Fernando Henrique Cardoso (Brazil), Ricardo Lagos (Chile), Prince Charles of Great Britain, Danielle Mitterrand, President of the France Libertés Foundation, among others. It has also received a formal backing from the German Parliament, with unanimous support from all the represented political parties, as well as the European Union, and other international bodies such as the United Nations Environment Programme (UNEP), the Organization of Petroleum Exporting Countries (OPEC), the Andean Community of Nations (CAN), the Andean Development Corporation (CAF), the Organization of American States (OAS), and numerous international organizations, like the International Union for Conservation of Nature and Natural Resources (IUCN). Members of parliament in different European countries have also supported the Initiative. Similarly various Ecuadorian civil society organizations have offered their backing: Asamblea Nacional Ambientalista, Acción Ecológica, Oil Watch, Amazonía por la Vida, Amazon Watch, Fundación Pachamama, CEDENMA, Ecolex, EcoCiencia, Grupo FARO, the Ecuadorian Confederation of Indigenous Nationalities (CONAIE) and other indigenous organizations. Chile became the first country to make a financial contribution to the Initiative, on September 13, 2010, followed by Peru, and European countries such as Spain and Italy also contributed to the Fund.



# Final structure

## 7. What is the YGC?

The Yasuní Guarantee Certificate (YGC) will be a financial document issued by the State to donors of the Initiative as a guarantee that the oil reserves will remain underground for an indefinite length of time. The value of the YGC will be a multiple of the tonnes of non-emitted CO<sub>2</sub>. This is a non-negotiable instrument that does not earn interest and does not have a maturity date, since the guarantee is in perpetuity and will be redeemed only in the event of the Ecuadorian government ordering oil exploration and exploitation in the ITT fields.

## 8. Who contributes to the Yasuní-ITT Project?

The donations to the international fund for keeping the oil reserves of the ITT field underground will come from voluntary contributions.

Voluntary contributions may come from:

### a) Governments of partner countries and multilateral international organizations.

- a. Contributions from emission allowance auctions or carbon taxes.
- b. Donations.
- c. Debt-for-conservation swaps.
- d. Specific projects in renewable energy sources, avoided deforestation, conservation and social development.

### b) Contributions from civil society organizations.

### c) Contributions from socially and environmentally responsible companies.

### d) Contributions from citizens worldwide, including Ecuador.

All these contributions will receive in exchange a guarantee from the Ecuadorian State to keep the oil reserves of the ITT field indefinitely underground. The State will issue Yasuní Guarantee Certificates (YGCs) for the amount of the compensation until reaching the total



False chameleon (*Polychrus marmoratus*)

of 407 million tonnes of non-emitted carbon dioxide. The real backing of the guarantees will be the amount of the investments made with the capital fund.

## 9. How will the funds received for the Yasuní-ITT Initiative be invested?

The contributions made to the Yasuní-ITT Initiative will be used exclusively for reducing greenhouse gas emissions, preserving biodiversity and indigenous cultures, reforestation, and improving the quality of life in the areas of influence of the projects contained within the Initiative. This will involve the implementation of renewable energy sources, scientific research, conservation and social investment in the framework of a strategy that seeks to consolidate a new model of equitable and sustainable development in Ecuador.



# Guaranteeing the proper use of the funds and non-exploitation

## 10. How will the Initiative guarantee transparency in the use of the funds?

The funds will be invested in preferred shares in projects to generate alternative energy in Ecuador, which will be administered and audited by the international trust fund managed by UNDP. Returns on these investments will be used exclusively on the projects mentioned in the preceding questions, following the guidelines of the National Development Plan, and consolidating the environmental and social policies laid down in the new Ecuadorian Constitution. All contributors will have detailed access to information on the use of the resources.

## 11. What mechanisms will be employed to ensure that the projects arising from the Yasuní Initiative are implemented along the proposed guidelines and that money from the Fund is not used on programs that are already financed by the General State Budget?

*Turtle on the banks of the Napo River (Podocnemis expansa)*



The international contributions will be deposited in the international trust fund managed by UNDP, whose Board of Trustees will include major contributors to the Initiative, the State, and representatives of Ecuadorian civil society; said board will ensure that the trustee complies with the mandate of investing along the previously defined lines. The project supports and enhances the new equitable and sustainable development policies, set forth in the new Constitution and the National Development Plan, and implemented by the national government.

## 12. How will the proper management of the 45 protected areas be assured, assuming that the trust fund has sufficient resources?

There is a plan for managing each protected area, drawn up by the Ministry of the Environment in collaboration with civil society organizations. This plan must be strictly applied to maintain biodiversity and protect the human rights of the peoples living in voluntary isolation.

In addition, there is now added interest in properly managing the Protected Areas, not only for their biological value, but also because of growing interest in tourism.

## 13. What guarantee is there that the ITT field will not be exploited in the future?

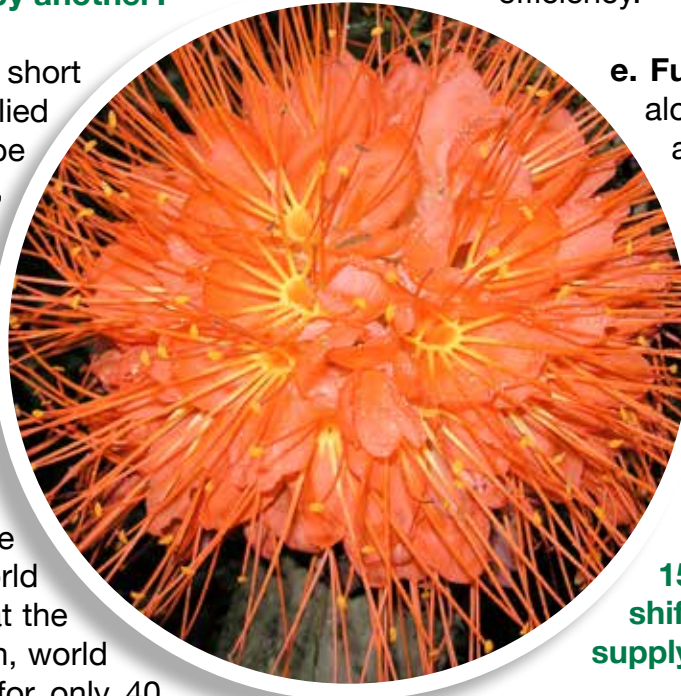
As a guarantee for the contributions, the State will hand over YGCs for the nominal value of the contribution. In the unlikely event that, in the future, the government of Ecuador should decide to exploit the ITT field, the guarantees will be made redeemable, the State will lose ownership of the fund and will cease to receive return on it, and the investments will be transferred to the contributors. The total amount of the contributions must equal the value of the carbon dioxide emissions prevented by keeping the oil reserves in the ITT field underground. It is hoped that the Initiative's capital funding will reach at least 50% of the profits that the State would earn if the oil were exploited.

However, Ecuador will do its best to receive an overall contribution of 100% of the expected income, reducing or eliminating any economic incentive that could lead to default. From the political stance, the Development Plan and the 2008 Constitution ensure the continuity of the sustainable strategies adopted.

**14. How can it be shown that the non-exploitation of the ITT field in Ecuador will result in a reduction in CO2 emissions, since, if oil is not delivered by one supplier, it is immediately replaced by another?**

It is true that, in the short term, the oil not supplied by one producer may be replaced by another, if the internationally installed capacity allows the substitution. Yet, over the long term, the reduction in CO2 emissions will be real because oil is a non-renewable natural resource and therefore finite. Estimates of world oil reserves show that, at the current rate of extraction, world oil production will last for only 40 years. In this period, the non-extraction of oil reserves is a net contribution. Even in the short term, recent experience has shown that reductions in the supply of oil have not been easily compensated by the additional extraction of other oil-producing countries, as happened in the oil crisis of the 1970s and during the recent Libyan conflict.

Furthermore, the Yasuní Initiative envisages that the financial resources to be obtained will be invested in new projects that will absorb or reduce additional CO2 emissions, in programs for deforestation prevention, reforestation and the development of clean energy sources. The joint potential for emission reduction of these projects is estimated to reach at least 820 million tonnes. The 407 million tonnes from the non-extraction of oil are added to this figure.



**The projects are as follows:**

- a. Protection and efficient administration of 45 protected areas and other remaining ecosystems.**
- b. Reforestation of one million hectares.**
- c. A shift in the Ecuadorian power supply toward clean energy systems.**
- d. Improvement in the country's energy efficiency.**
- e. Funds for production, along with education and training for rural communities in the areas of influence of the projects, so that they can improve their standard of living through farming, ecotourism and sustainable forms of production.**

**15. What is the plan to shift the Ecuadorian energy supply?**

Forty-seven percent of the power generated in Ecuador comes from thermoelectric sources. The country has very high potential in renewable generation sources – hydroelectric, geothermal, wind, tide and solar power – that are still untapped. The initiative envisages financing the development of these sustainable energy alternatives and replacing those stemming from the burning of oil derivatives.

**16. How will the energy demand change?**

**Two measures have already been taken to reduce the consumption of fossil fuels:**

- a. The subsidy for energy-saving light bulbs.**
- b. The removal of all taxes on the importation of hybrid and electric vehicles.**



This policy will go further with the funding of solar panels for heating water in homes; encouraging electricity-driven public transportation in cities; capturing greenhouse gases in sanitary landfills; and using biogas digesters in rural homes. All these activities will be aligned with a national policy to increase energy efficiency. The government has also proposed turning Galapagos into a fossil fuel free territory.

### **17. How does the Yasuní-ITT Initiative fit in with Ecuador's current environmental and energy policies?**

The Yasuní-ITT Initiative strengthens and reinforces Ecuador's current policies aimed at shifting from an extraction-based, inequitable and unsustainable development model towards a new, inclusive, sustainable model.

These are the guidelines set by the 2008 Constitution, the 2009-2013 National Plan for "Buen Vivir", the 2009-2025 National Development Strategy (of the National Planning Secretariat - SENPLADES for its initials in Spanish), and in particular the policies of the new Ministry of Electricity and Renewable Energy, along with the Ministry of the Environment.

The new Constitution establishes the concept of buen vivir (good living) as the goal of participatory, intercultural, equitable and sustainable development, and, for the first time in the world, recognizes the rights of nature, guaranteeing ecosystems the right to exist and thrive. The development plans define a medium-term and long-term strategy aiming at sustainable human development.

The new Ministry of Electricity and Renewable Energy seeks to reduce the dependency on fossil fuels and promotes the development of clean, efficient technologies. The Ministry of the Environment, meanwhile, is implementing the Forest Partner Project to reduce deforestation and encourage conservation.



*Parrot (Ara ararauna)*

# The kyoto protocol and alternative options

## 18. Can the Yasuní-ITT Initiative be brought within the mechanisms of the Kyoto Protocol?

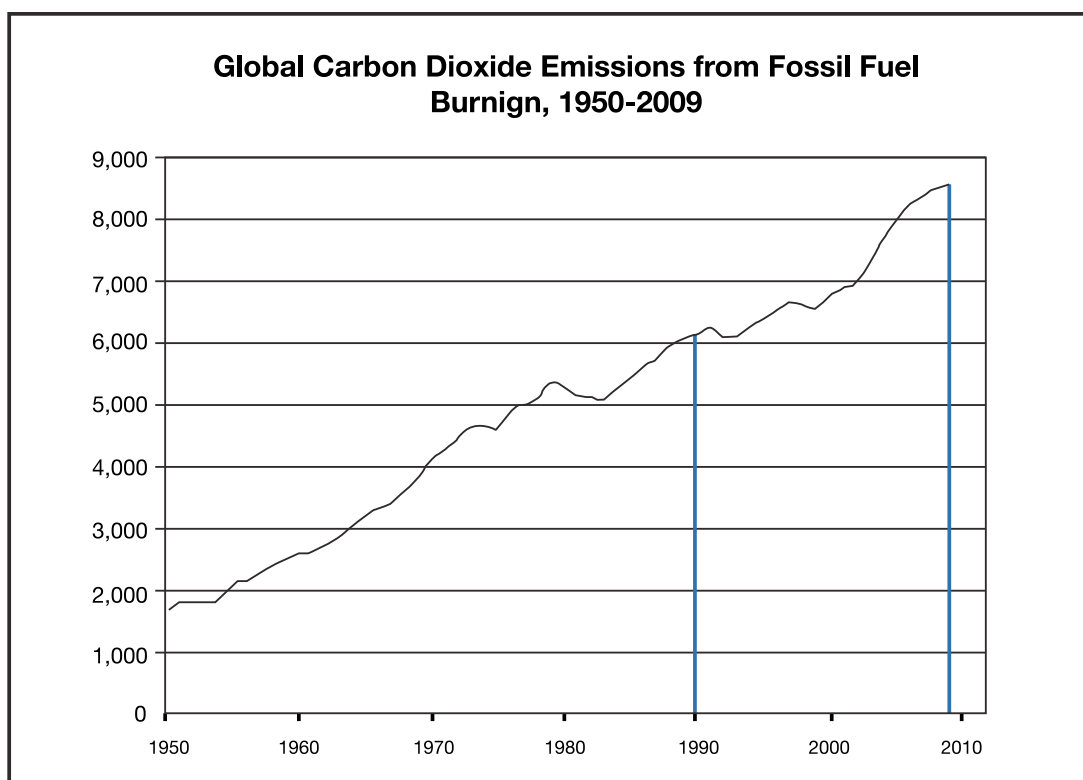
**No.** The Yasuní-ITT Initiative presents innovative, effective alternatives to reduce greenhouse gases, such as keeping fossil fuel reserves underground in areas of high environmental sensitivity, and prevented deforestation, which are currently being discussed in the context of the post-Kyoto negotiations. None of these procedures is foreseen in the Clean Development Mechanisms (CDMs) that enable developing countries to participate in the Kyoto Protocol.

## 19. So how does this initiative fit into international efforts to mitigate climate change?

In reality, the Kyoto Protocol has achieved limited results and the goal of reducing worldwide CO<sub>2</sub> emissions below 1990 levels is unlikely to be reached by 2012, since these emissions have increased globally since 1990 and continue to do so at a rate of 2-3% per annum (see Graph 6). This is why new post-Kyoto international agreements are being prepared, including stricter mechanisms and targets, such as that proposed by the European Union to reduce its emissions by 50% by 2050 or to introduce taxes on CO<sub>2</sub> emissions produced by activities such as transportation or agriculture.

Fulfilling these goals will demand new forms of mitigation and an integrated international effort involving the participation of all stakeholders, under the principle of shared and differentiated responsibilities. Ecuador's Yasuní-ITT Initiative fits into this setting.

**Graph 6 : Annual CO<sub>2</sub> emissions: 1950-2009**



**Source:** Earth Policy Institute, 2011. <[http:// www.earth-policy.org data\\_center/C23](http://www.earth-policy.org/data_center/C23)>.





**20. While the Yasuní Initiative is outside the Kyoto Protocol mechanism, it could have a positive or negative influence on the post-Kyoto negotiations. What threat or opportunity does this Initiative entail?**

**The Yasuní Initiative proposes a new alternative to the current Kyoto Protocol, which allows for:**

**a. The active participation with binding commitments,** before 2012, of countries not included in Annex 1 of the Kyoto Protocol; and

**b. The inclusion of emissions prevented by the non-extraction** of fossil fuels in megadiverse developing countries. This initiative can be added to proposals for prevented deforestation, currently under discussion.

There is, therefore, no threat whatsoever; on the contrary, new opportunities are created for all parties.

**21. Clean Development Mechanisms only compensate the pollution caused by greenhouse gases in the atmosphere stemming from emissions already made in other parts of the world, and strictly speaking, do not reduce them. If the Yasuní-ITT Initiative is included within this vision, it will likewise fail to bring about additional reductions.**

The United States or Canada can accept the inclusion of YGCs in a different way from that of CDMs. If the YGCs are included in the total allowed emissions without adding new certificates, but as a fixed percentage (say 1%) of the certificates issued, there will actually be a net reduction in emissions.

**22. The contribution for the non-emission of 407 million tonnes of CO<sub>2</sub> is a very high sum. These emissions total more than the annual emissions of France. Recognizing them in a way similar to the Certified Emission Reductions (CERs) could flood current markets and have an adverse effect on the prices of carbon credits.**

The Yasuní-ITT Initiative has not participated in the carbon markets, and has been based only on voluntary contributions. Moreover, Ecuador suggests receiving this contribution over a period of 13 years. During this period, the recognition of YGCs would only increase the supply of carbon credits by a very low percentage, less than 1%.

**23. The area of the ITT field is small (200,000 hectares) and the compensation requested is comparable to global funds for protecting biodiversity. The proposal seems disproportionate.**

First of all, the proposal is not limited to conserving

the ITT field, but includes 45 protected areas and other remaining ecosystems, encompassing at least 4.8 million hectares, or 19% of the nation's territory. Secondly, the proposal is not just about the conservation of biodiversity, but also incorporates the mitigation of climate change and human development. Finally, the amount is based on Ecuador's opportunity cost of not exploiting the oil in the ITT field.

## Other international proposals

**24. If all the oil-producing countries applied the same reasoning as Ecuador, the world would be flooded with credits for untapped oil and there wouldn't be enough buyers. What would happen if Saudi Arabia, Russia (Siberia) and the United States (Alaska) decided to apply the same concept?**

**The design of the project limits the beneficiaries of the mechanism to countries with special characteristics, such as:**

**a. Being developing countries.** One of this mechanism's main attractions is that it simultaneously works towards three aims: to fight climate change, maintain biodiversity, and reduce poverty and inequality. The initiative promotes sustainable development.

**b. Being megadiverse countries located between the Tropics of Cancer and Capricorn,** with the highest density of tropical forests. These countries hold most of the planet's biodiversity.

**c. Having significant fossil fuel reserves** in areas of high biological and cultural sensitivity.

Among the countries satisfying all of these conditions are Brazil, Colombia, Costa Rica, the Democratic Republic of Congo, Ecuador, India, Indonesia, Madagascar, Malaysia, Papua New Guinea, Peru, Bolivia, the Philippines and Venezuela.

Therefore, countries like those mentioned in the question would be excluded, and any glut of similar projects would be avoided.





## **25. What is the difference between the Yasuní-ITT Initiative and other proposals for protecting tropical forests, put forward by Brazil, Costa Rica, Guyana and others?**

The Yasuní-ITT Initiative is unique because it encompasses three basic goals: reducing emissions by the non-extraction of fossil fuels, protecting biodiversity and promoting social development. The proposals of the other cited countries focus on protecting tropical forests through REDD mechanisms (Reduced Emissions from Deforestation and Degradation), seeking economic compensation for reducing deforestation, conserving biodiversity and at the same time preventing emissions. Some of the proposals include afforestation, reforestation, agroforestry and sustainable tropical forestry management, as well as the protection of indigenous peoples. The Ecuadorian proposal is the only one to include all four above-mentioned dimensions (the non-exploitation of fossil fuels, alternative energy development, the protection of biodiversity and indigenous groups, and development with equality).

The proposals of the countries named in the question are all channeled through existing or projected mechanisms, such as CDM or REDD, or the voluntary carbon market. The ITT Initiative seeks new forms of mitigation that go beyond the Kyoto Protocol.

## **26. What is the difference between the proposal of Saudi Arabia (and other OPEC countries) and the ITT Initiative?**

Saudi Arabia and other oil-exporting Arab countries have proposed the need to be compensated for the negative impacts that steps to mitigate climate change might have on future demand for oil.

The Yasuní-ITT Initiative has substantial differences from the Saudi position. Ecuador begins by recognizing the seriousness of the problem of global warming and the urgent need to adopt effective policies. Secondly, it seeks to contribute directly to the mitigation of emissions by keeping the ITT oil reserves unexploited, without requesting compensation for international mitigation.

The recent OPEC position that acknowledges the need for a transition to sustainable forms of energy is shared by Ecuador.

## **27. Indonesia has proposed compensation for refraining from planting African palm, which would deforest the rainforest. How does this stance compare to the Yasuní-ITT Initiative?**

Indonesia's proposal does not include a key component which is central to the Yasuní-ITT Initiative: keeping fossil fuels underground. Although there are some similarities, like preventing deforestation, Indonesia's position does not have the all-round vision of Ecuador's proposal.

One must also distinguish between fossil fuels – which release the carbon stored during the planet's remote past into the atmosphere – and biofuels, which consume the carbon stored in existing plantations, with different effects on the environment and climate change.

## **28. If the Yasuní-ITT Initiative is approved, other countries might seek compensation for not deforesting their tropical rainforests. Is that fair?**

A number of initiatives being discussed currently, like the REDD mechanism in the post-Kyoto negotiations, share the idea of compensation for conserving tropical forests. The Yasuní-ITT Initiative is only one of these proposals. However, the central idea of the Ecuadorian proposal, that makes it unique, is the non-exploitation of oil. Moreover, the feasibility of replicating the Initiative only in developing, megadiverse countries with fossil fuel reserves, excludes most cases.

Any potential replication of the project also depends on specific local and national factors, like a country's level of development, its biodiversity or cultural wealth in the area of the deposits, the size of the fossil fuel reserves, and, above all, the political willingness of the governments to decide their non-exploitation.





## ECUADOR AND ITS LAWS

**29. Doesn't the construction of the new refinery in Manabí, which will process heavy crude, envisage a supply of heavy crude from ITT?**

No. The refinery project has a Plan A, which assumes that the Yasuní-ITT Initiative will be accepted by the international community and, as such, the oil in these fields will remain underground forever. There is a Plan B, in case the Initiative is not accepted, and the refinery would then process ITT heavy crude. The refinery is being built to process heavy crude from Ecuador and Venezuela, and Ecuador has other untapped deposits of heavy crudes which will soon come on line, such as Pungarayacu. The oil in the ITT field is not indispensable for the new refinery.

The ITT oil is not required for the new refinery, given that its overall contribution to the project supply is lower than 12%, during the complete lifespan of the refinery.

**30. How coherent is the Ecuadorian energy policy – especially oil exploitation, with its resulting pollution and lack of respect for local communities – with a project like the Yasuní Initiative?**

Oil production began in the Ecuadorian Amazon in 1967, with very little respect for nature and local indigenous groups. The Yasuní-ITT Initiative proposes a radical policy turning point that gives priority to the use of alternative sources of renewable energy, the conservation of biodiversity, the sustainable management of natural resources and respect for the human rights of peoples in voluntary isolation. This effort requires international support and solidarity in search of new options for sustainable, participatory development.

**31. If the Ecuadorian Constitution stipulates that non-renewable natural resources like oil may not be extracted in protected areas, how come oil is still exploited in these areas?**

The new Constitution was approved in September 2008. Therefore all previous exploitation was not bound by this restriction. In the future, new exploitation projects will only be allowed with express authorization from Congress. This demonstrates the new conservationist path that Ecuador is taking, with which the Yasuní-ITT initiative is consistent.

**32. Why is Ecuador asking for compensation for avoiding the extraction of oil in a national park recognized by UNESCO for its value, when it is its duty to protect it without receiving compensation?**

Ecuador, like other developing countries in Latin America, has traditionally had very limited economic resources for boosting development in the country. In light of the scarcity of resources for this purpose, it has chosen to extract oil reserves, including those located in National Parks. The weak institutional framework and the high returns of the oil industry have brought about the extraction of oil and gas inside Yasuní National Park.

Ecuador is committed to changing this policy,



and Article 407 of the new Constitution prohibits extractive activities in protected areas, except for exceptional cases following a justified request to the President of the Republic and a declaration of national interest by the National Assembly. The Yasuní-ITT Initiative sets out to lay sound financial and institutional foundations in order to achieve the effective and permanent conservation of these areas. In addition, it is not asking for compensation but rather a joint contribution towards common international objectives, with the mitigation of climate change, the preservation of biodiversity and sustainable human development.

## Yasuní-ITT TRUST FUND WITH UNDP

### 33. What are the advantages of the Trust Fund with UNDP?

On August 3, 2010, the Ecuadorian government signed the agreement to create the Yasuní-ITT Trust Fund with the United Nations Development Programme (UNDP) in the form of an international trust. In this document, the Ecuadorian State undertakes to keep the oil reserves in the ITT

Block of Yasuní National Park indefinitely unexploited providing that, over 13 years, an international contribution of at least US\$ 3.6 billion is forthcoming. This figure is half the value that the State would earn if the oil were exploited. UNDP will manage the Yasuní-ITT Fund in line with the goals stipulated in this international agreement.

The international management of the Yasuní Fund by UNDP's Multi-Donor Trust Fund (MDTF) ensures transparency, effectiveness and efficiency in the handling of the funds, adhering to the goals of the project and international standards. The MDTF currently manages 35 international funds from multiple contributors, with paid-in deposits totalling US\$ 4.524 billion, from 66 contributors, and disbursements paid out in 81 nations.

### 34. How does the Trust Fund with UNDP work?

The Yasuní-ITT Fund will be managed and supervised by the Steering Committee of the International Trust, which will take decisions mainly by consensus. This body is comprised of eight members, three of whom are representatives of the Ecuadorian government, two of donor governments, one of Ecuadorian

*Yasuní National Park rainforest*



civil society, and the last two of UNDP (who can express their opinion but cannot vote). The greater participation of the Ecuadorian government (three of the six voting members) is due to the fact that Ecuador will contribute up to 50% of the funds by giving up half the potential profit that would be earned if the oil were extracted.

The Board will be supported by a technical department, which will be unbiased and independent, and will provide the studies needed to appropriately assign the fund's resources, according to the guidelines of the National Development Plan and the goals of the Trust.

### 35. How has the amount of funds to be received in the Trust been calculated?

The economic valuation of the Yasuní-ITT Initiative is based on the 407 million tonnes of CO<sub>2</sub> that will not be emitted into the atmosphere by keeping the reserves of the ITT Block indefinitely underground. The figure has been calculated on an analysis of the carbon content of the crude oil in the ITT camps, with 14.7° API. In return for the monetary contributions, the State will issue Yasuní Guarantee Certificates (YGC), for both their nominal value in US dollars and their equivalent in non-emitted tonnes of CO<sub>2</sub>, valued at the price of European emission allowances (EUA) in the European ETS carbon market at the date of receipt of the contribution. The Ecuadorian State will receive contributions until covering the total 407 million tonnes of CO<sub>2</sub> not emitted due to the non-extraction of the extractable oil reserves in the ITT Block.

Forest Degradation). The Yasuní-ITT Initiative further develops the concept of prevented emissions by extending it to the non-extraction of fossil fuel reserves in megadiverse developing countries.

### The main advantages of the Yasuní-ITT Initiative over the REDD mechanism are as follows:

#### 1. The Initiative proposes preventing the emission of 407 million tonnes of CO<sub>2</sub> through the non-extraction of oil in the ITT field.

This figure, higher than the annual emissions of countries such as France and Brazil, will be increased by at least 820 million tonnes due to the indirect benefits of the Initiative, as the Fund and its interest will be invested in renewable energy sources, prevented deforestation and reforestation. The net prevented emissions will therefore be at least triple the figure directly saved by the oil, on which the valuation of the international donation is based.

**2. The existing mitigation mechanisms, based on the reduction and trading of emissions, combined with the new prevented emission mechanisms, such as REDD,** are not enough to reach the target of keeping climate change within 2°C throughout this century, and the corresponding concentrations of CO<sub>2</sub> under 450 ppm. Additional instruments are therefore called for to avoid the extraction of fossil fuels in areas of high environmental sensitivity in developing countries.

**3. The ITT Initiative is unique as it integrates three basic goals:** to reduce emissions by the non-extraction of fossil fuels, protect biodiversity, and foster social development. The REDD proposals seek economic compensation in exchange for reducing deforestation, conserving biodiversity and, at the same time, preventing emissions. Some proposals include afforestation, reforestation, agroforestry and the sustainable management of tropical forests, as well as the protection of indigenous peoples. The Ecuadorian proposal is the only one to encompass the four above-mentioned dimensions (non-exploitation of fossil fuels, development of alternative energies, protection of biodiversity and indigenous peoples, and equitable development).

## OTHER MATTERS

### 36. What are the advantages of the Yasuní-ITT Initiative compared to the REDD mechanism?

The notion of prevented emissions as a mechanism for mitigating climate change, currently not recognized under the Kyoto Protocol, has been widely discussed in the case of deforestation through the REDD mechanism (Reducing Emissions from Deforestation and



