

LSE public lecture

Environmental Diplomacy

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LSE events



**Eco-diplomacy:
critical for Costa
Rica's sustainable
competitiveness**



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Eco-diplomacy definitions

- ◆ Some very important environmental problems which transgress our national boundaries, require international environmental cooperation...in other words ecodiplomacy.

(Ref: Sascha Muller-Kraenner, director Heinrich Boll Foundation, 1999), German Green Party

- ◆ Many global environmental problems such as the impacts of climate change, the preservation of biological diversity, and trans-boundary air pollution demand multilateral responses

◆ *(Ref: Paul Hagen, The Environmental Forum, 2010)*

Ecodiplomacy 7 distinguishing factors

1. The Nature of the subject matter: from global to interdependency*
2. The Role of Science and Scientist: Uncertainty*
3. The Complexity of Negotiations: local and multilateral impacts*
4. The Unique equity issues involved: North-South, rural-urban, intergenerational*
5. Innovative features and approaches: CDM*
6. Large number of players: from Ozone initial 24 parties to UNFCCC 150 **
7. Ever increasing Role of the Media: Fish bowl**

**Ref: Ambassador Richard Benedick, US, chief negotiator for the Montreal Protocol on Ozone Depletion*

***Added by Rene Castro, CR, Chief negotiator for the UNFCCC Kyoto Protocol*

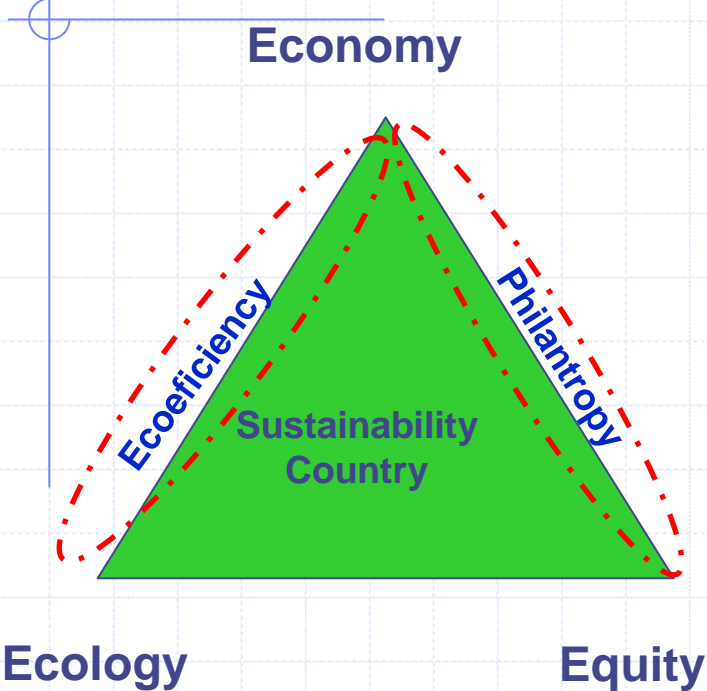
Traditional priorities for a country

1. Security*
2. Economics*
3. Social Domestic Issues
4. Something ??
5. Something else ???
6. Local Environment*
7. Global Environment and Commons*

**Ref: Ambassador Richard Benedick, US, chief negotiator for the Montreal Protocol on Ozone Depletion*

Country's and Corps sustainability approach*

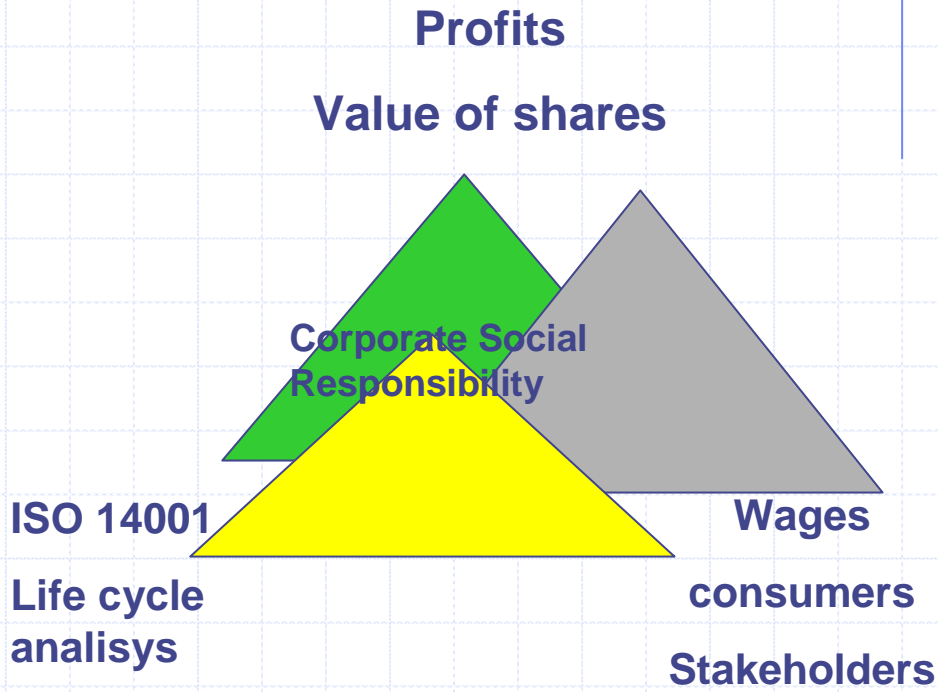
MACROECONOMY



$$C_A + C_S + C_E > C_{RSE}$$

$$B_A + B_S + B_E < B_{RSE}$$

MICROECONOMY



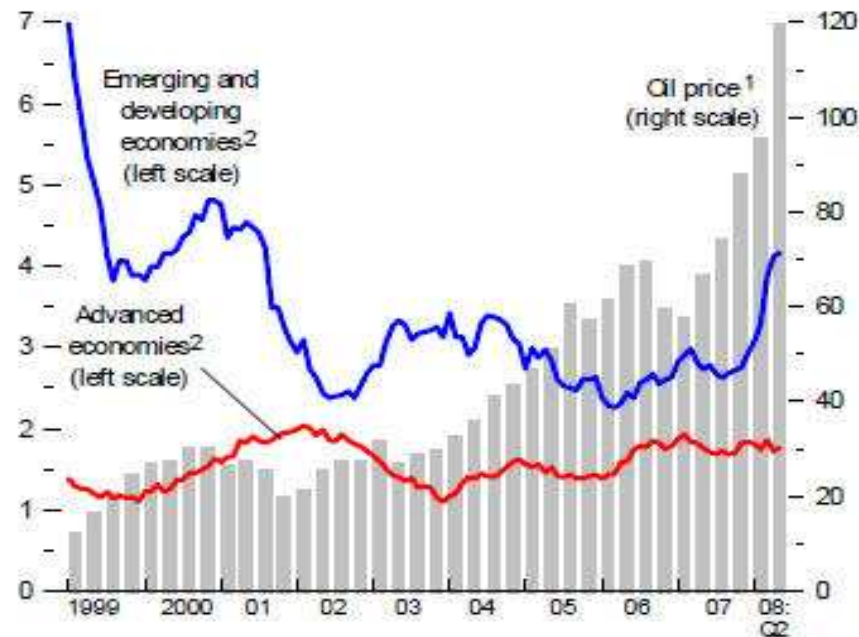
*Ref: Adapted from Prof. Sarah Cordero, INCAE 2004



Is Ecodiplomacy Changing countries' and Firms' Strategies?

Financial Crisis: Inflation and oil prices

Core Inflation and Oil Price
(Percent and U.S. dollars a barrel)



Sources: Haver Analytics; IMF Primary Commodity Prices database; and IMF staff calculations.

¹Simple quarterly average of prices of U.K. Brent, Dubai, and West Texas Intermediate crude oil.

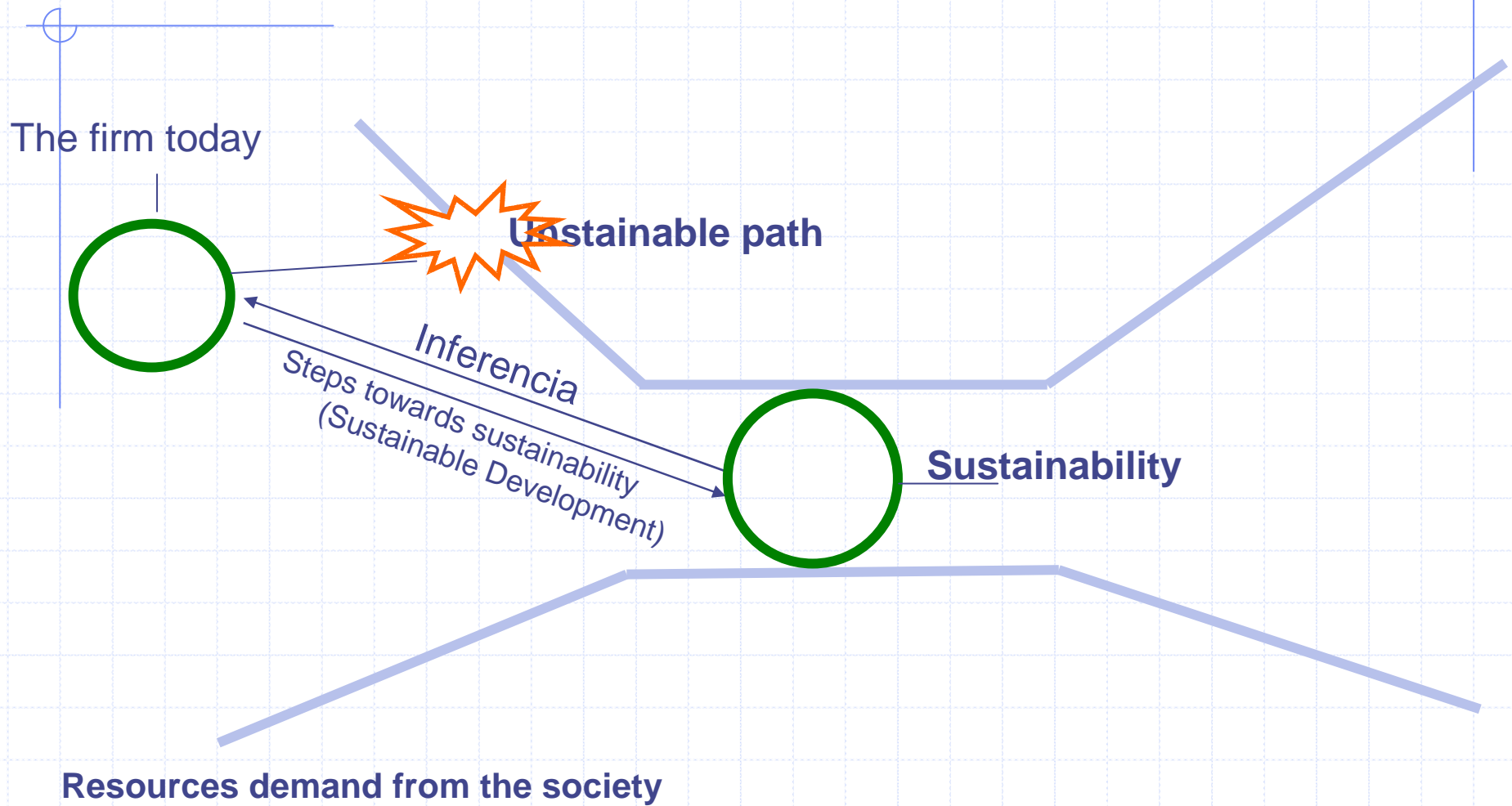
²Twelve-month percent change in the core CPI index. Aggregates are computed on the basis of purchasing-power-parity (PPP) weights.

Water Wars: The possible flashpoints are the Nile, Niger, Volta and Zambezi basins

- ◆ The report predicts that population growth and economic development will lead to nearly one in two people in Africa living in countries facing water scarcity or what is known as 'water stress' within 25 years (BBC, Nov 15, 1999).

The Funnel analogy

Availability of resources and the ability of eco-systems



Example #1: Car industry



Leaving dead?



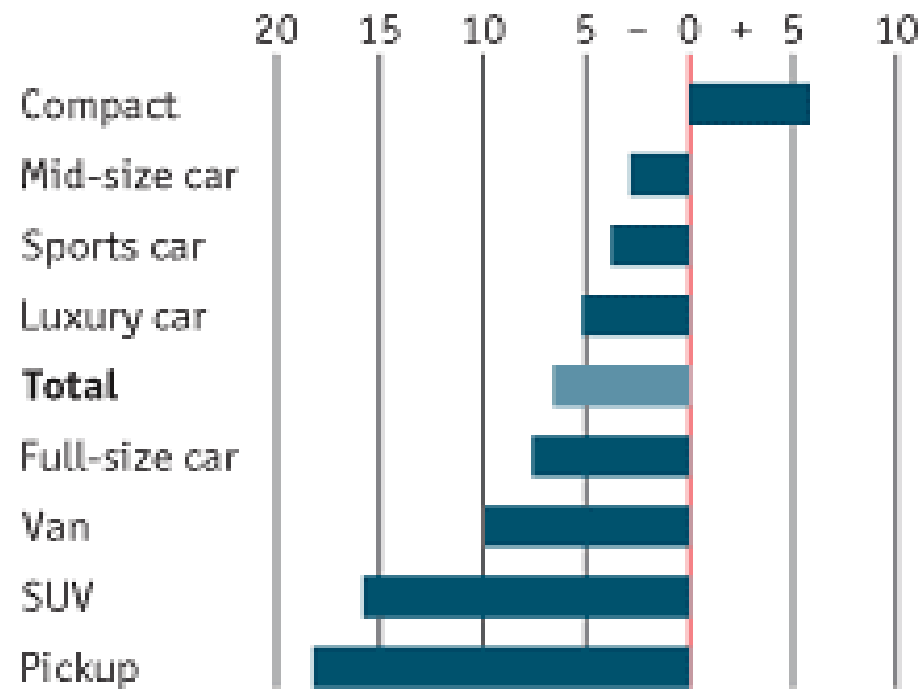
Survivor?

Fact: Used cars market value plummeted for most

Going, going...

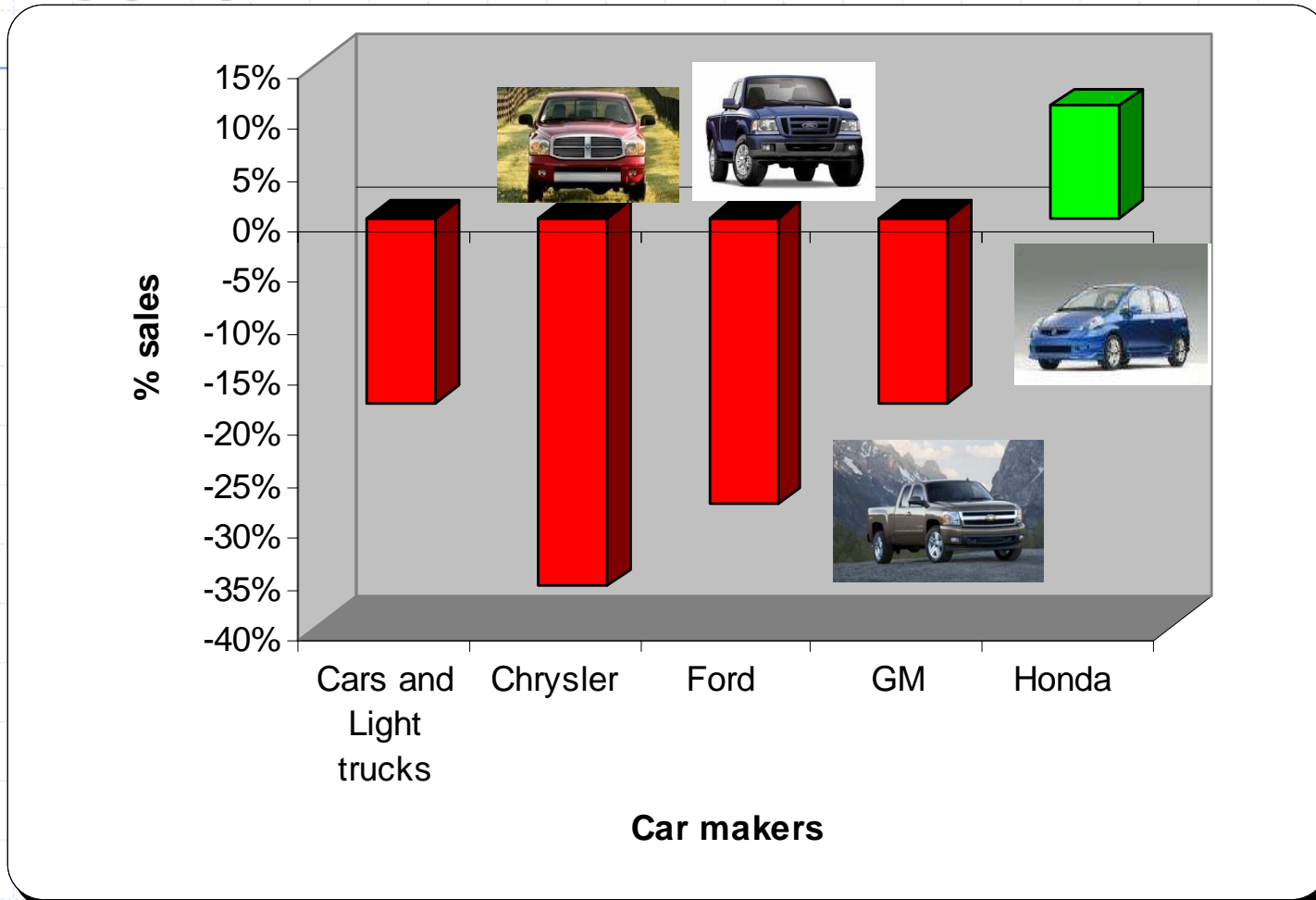
Manheim US auction prices, May 2008

% change on a year earlier



Source: Morgan Stanley

Demand for large oil-thirsty cars in free fall




Even some ugly hybrids have a chance

Compare Old and New EPA MPG Estimates

2000 Honda Insight
Manual (5 speed)
3 Cylinders
1 Liters
Regular Gasoline

[Look up another car](#) ▶



Hybrid Vehicle

New EPA MPG			Old EPA MPG		
49 City	53 Combined	61 Hwy	61 City	65 Combined	70 Hwy

[New MPG tests are more realistic](#) ⓘ

[Learn more about "Your MPG"](#) ⓘ

[Disclaimer](#) ▶

MPG Estimates from Drivers Like You

Average based on 17 vehicles:

62.3

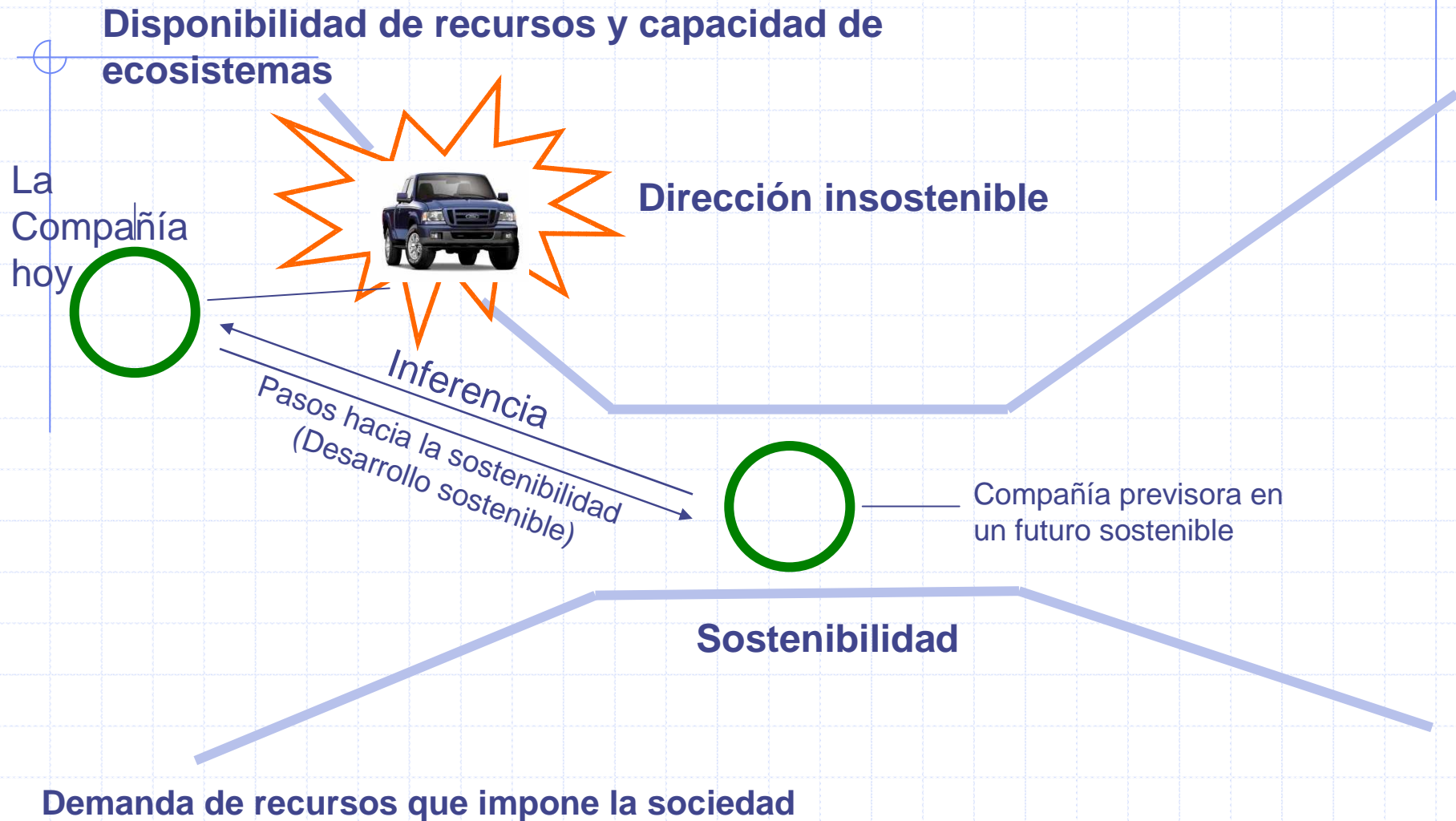
Lo **48** → **92** Hi

[View Individual Estimates](#)

Additional Vehicle Characteristics: Front-wheel drive, SIL
Combined MPG estimates are based on 45% highway and 55% city driving

Use the new EPA MPG estimates to compare to 2008 and later model year vehicles. The old EPA MPG estimates are listed on the window stickers of 2007 and earlier model year vehicles.

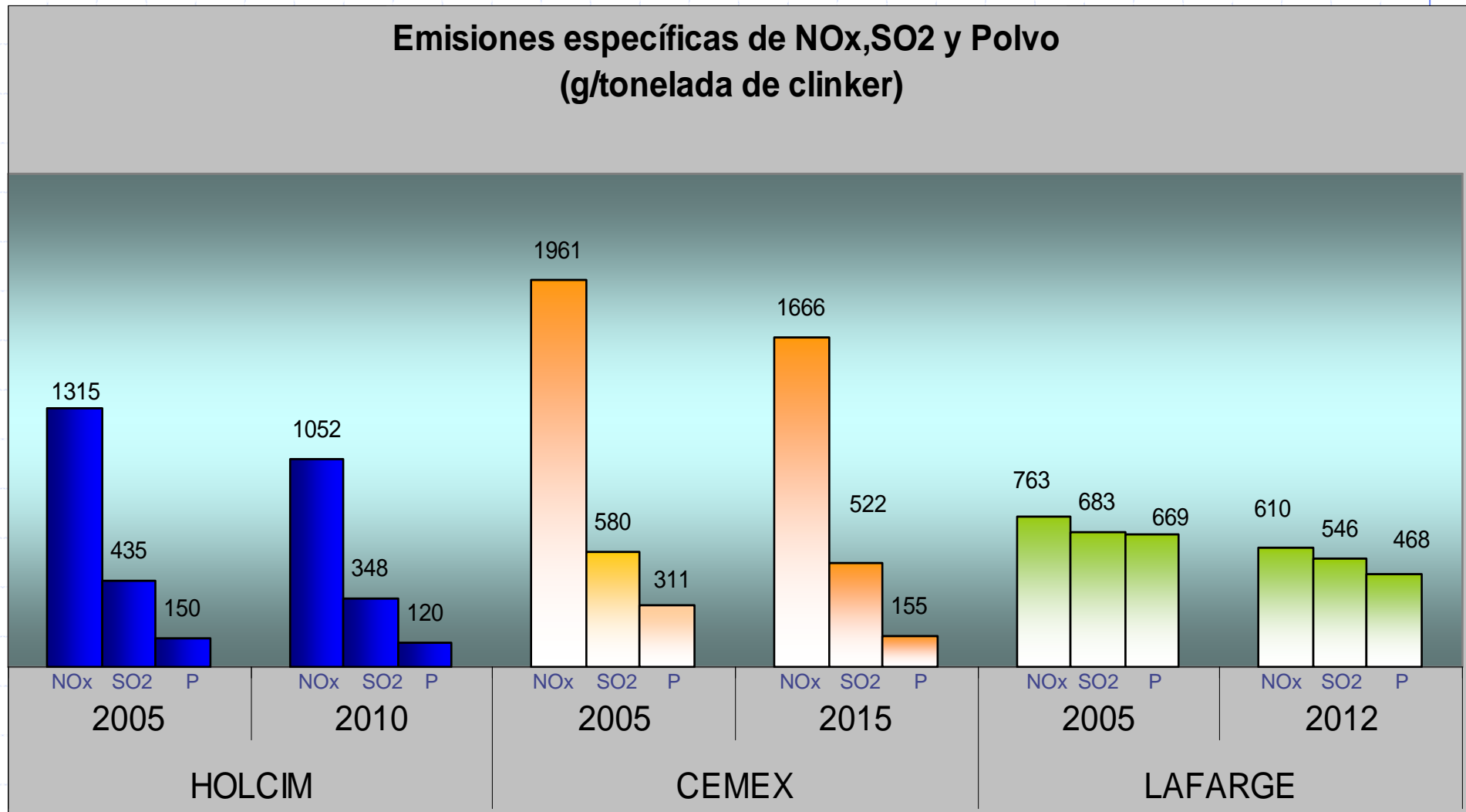
Some are killed by market and environmental changes



Example #2: Cement Industry



Environmental commitments are similar and stiff



Social and environmental programs growing

	Holcim	Cemex	Lafarge
<i>Relación con ONG</i>	UICN	Rainforest Alliance Wildlife Conservation Society Conservation International Wild Foundation Birdlife International Conservation Photographers	WWF Habitat para la Humanidad CARE
<i>Programas de Voluntariado</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Programas de Salud</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Contribución proyectos comunitarios "Buen Vecino"</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Apoyo educación y cultura</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Apoyo investigación</i>	Fundación Holcim	Alianza con SEKN	n.i
<i>Construcción de viviendas</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Igualdad de Género</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Is it smart to go ahead of times?



Example #3. Costa Rica's ICE and the false dilemma between lower costs or clean electricity

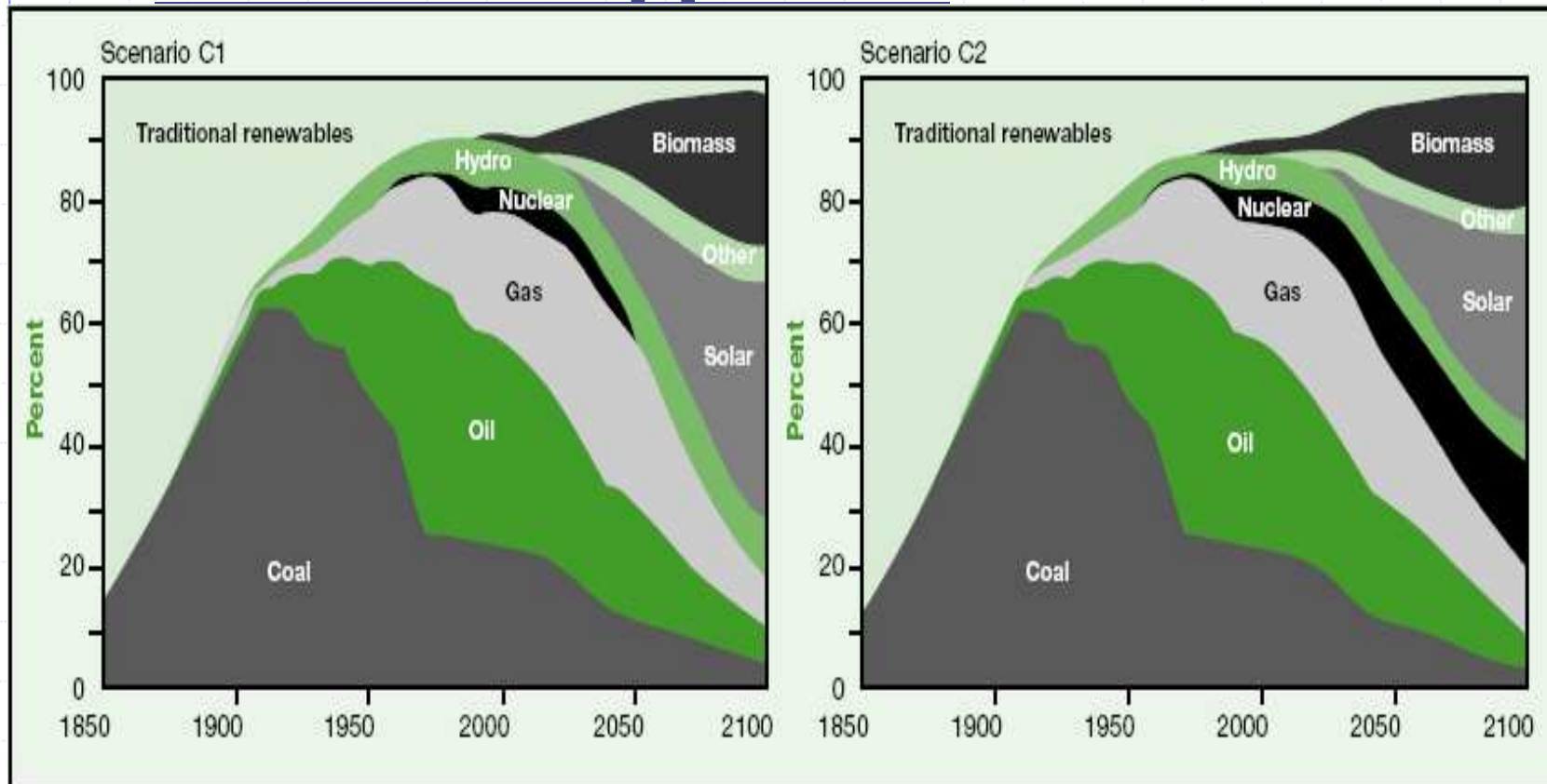


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**Colaboración equipo energía
INCAE:**
Master Leo Guevara
Master Pavel Molina
Ingeniera Química Ana Lucía Alfaro

Global scenarios for energy and oil economy

Structural approach



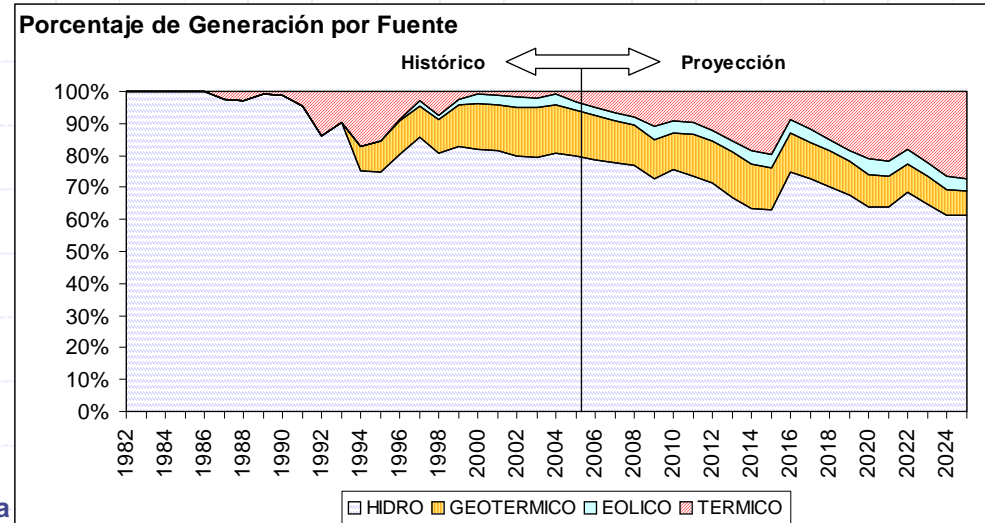
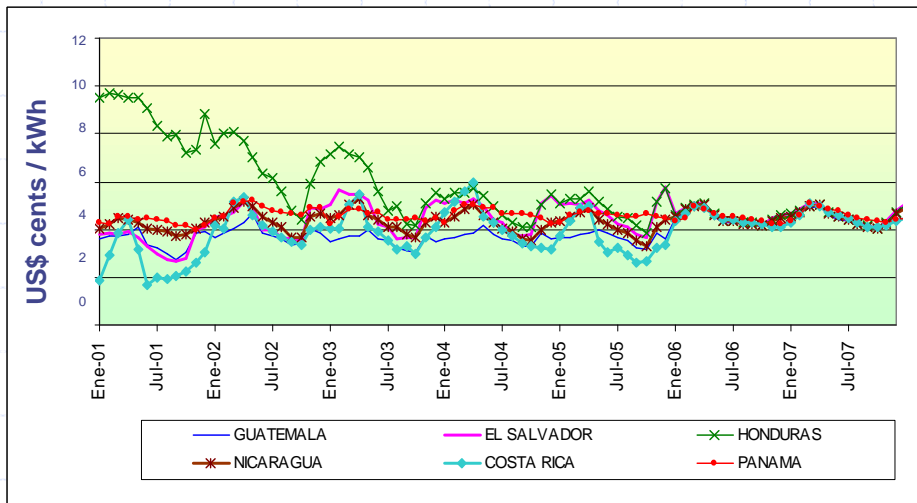
Fuente: World Energy Assessment, UNDP, 2000

Energy sources for development

Green energy opportunities for Costa Rica?

- ◆ 100% renewable by 2021
- ◆ Exports to Mexico and Central America

Costos Marginales de Corto Plazo en Centro América



"Plan de expansión de la generación eléctrica, período 2006 – 2025"; ICE; 2006; modificado por el autor

Economies of scale for electricity prices

Green markets will expand traditional opportunities

- ◆ Project Finance
- ◆ Newer technologies
- ◆ Exporting electricity and CO2 neutral goods
- ◆ Reaching Mexico's market?

¡MÉ

G

Intercambios de Energía en Centroamérica

Visual comparison – at the same rated power of 2000kW
 Visual comparison – at the same rated power of 2000kW

Nabenhöhe = 100 m

OK Flügelspitze: +140,00

Rotordurchmesser = 80 m

Nabenhöhe: +100,00

OK Fund. sektion: +0,55

UK Fund.: -2,15

OK Terrain: ± 0,00

27 m

40m

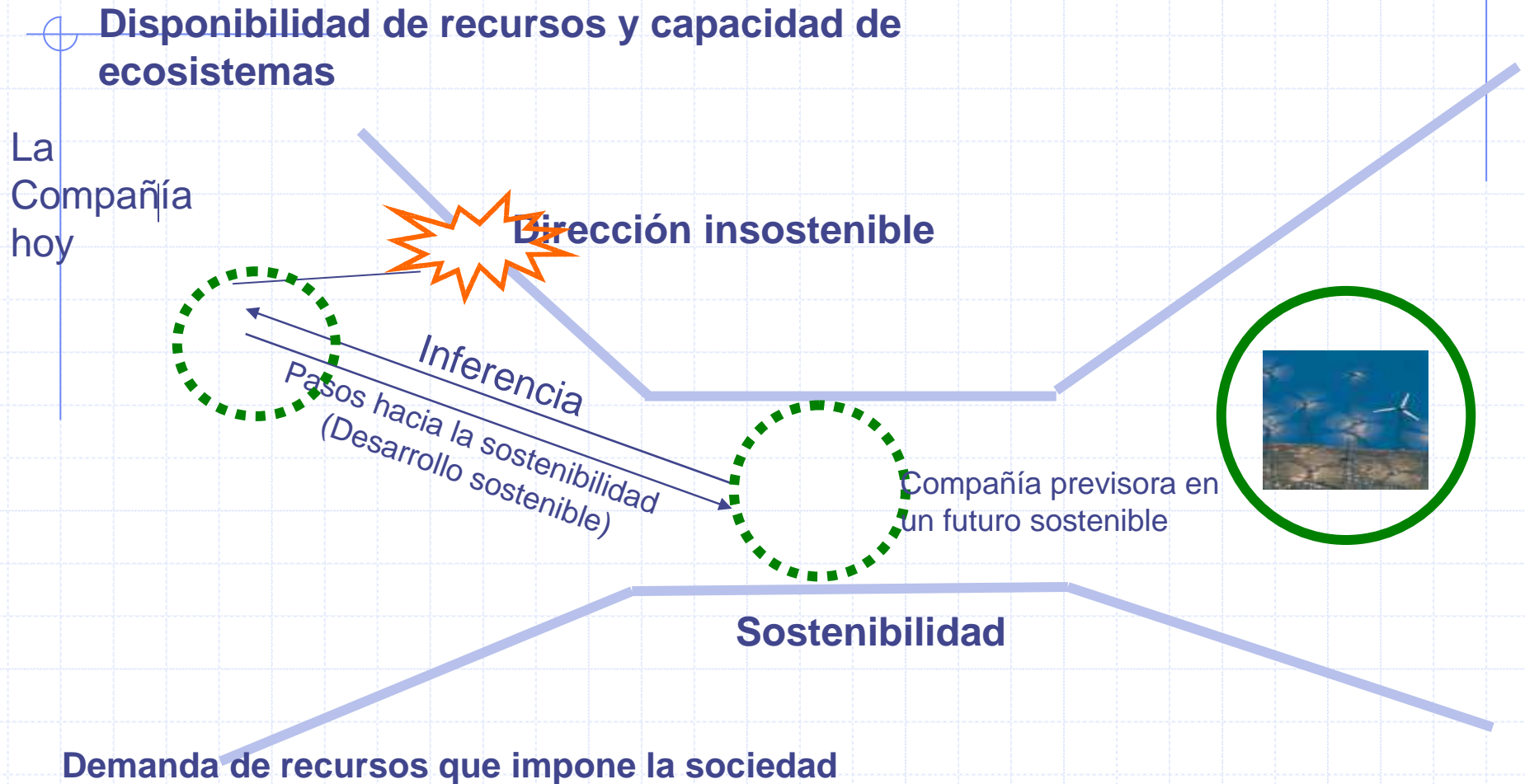
National Grid
 Sistema de Sistema Wind Energy System, en desarrollo
 SIPPAC Line
 Sistema de Sistema Wind Energy System, en desarrollo
 ES-INDIA

Para mayor información recomendamos consultar el Hoja de Referencia de Contratación a la
 Comisión de Regulación de Energía y Gas (CREG) de la Agencia de Regulación y Control Financiero (ARCF), en
 Puerto de la Cruz y el Portal de Información del Banco Nacional de Costa Rica.

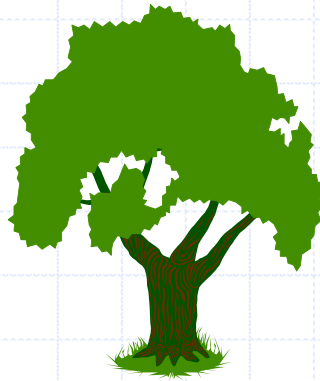
La autorización ni el aviso de oferta pública implican calificación sobre la
 bondad de la emisión ni la solvencia del emisor o intermediario, de conformidad
 con el artículo 13 de la Ley Reguladora del Mercado de Valores"

Publicado en el periódico "La Nación" de Costa Rica, el miércoles 19 de enero de 2005

First mover advantage



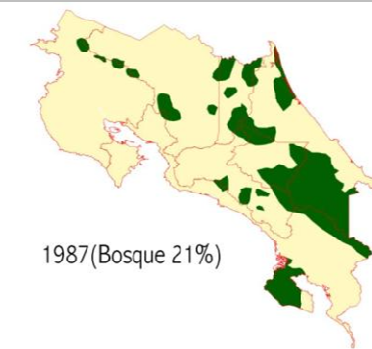
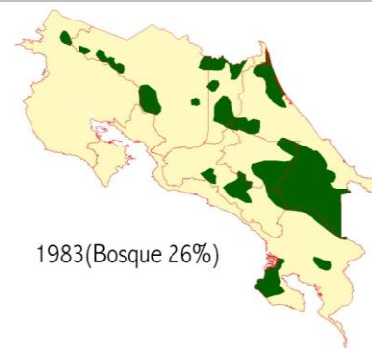
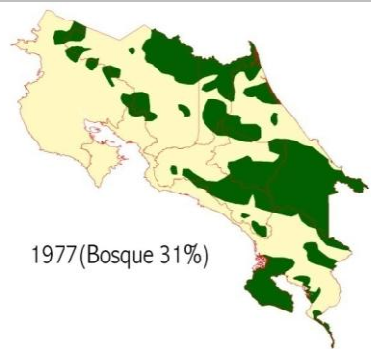
Example #4: Tropical Forest



Costa Rica: (Forest) Stripetease

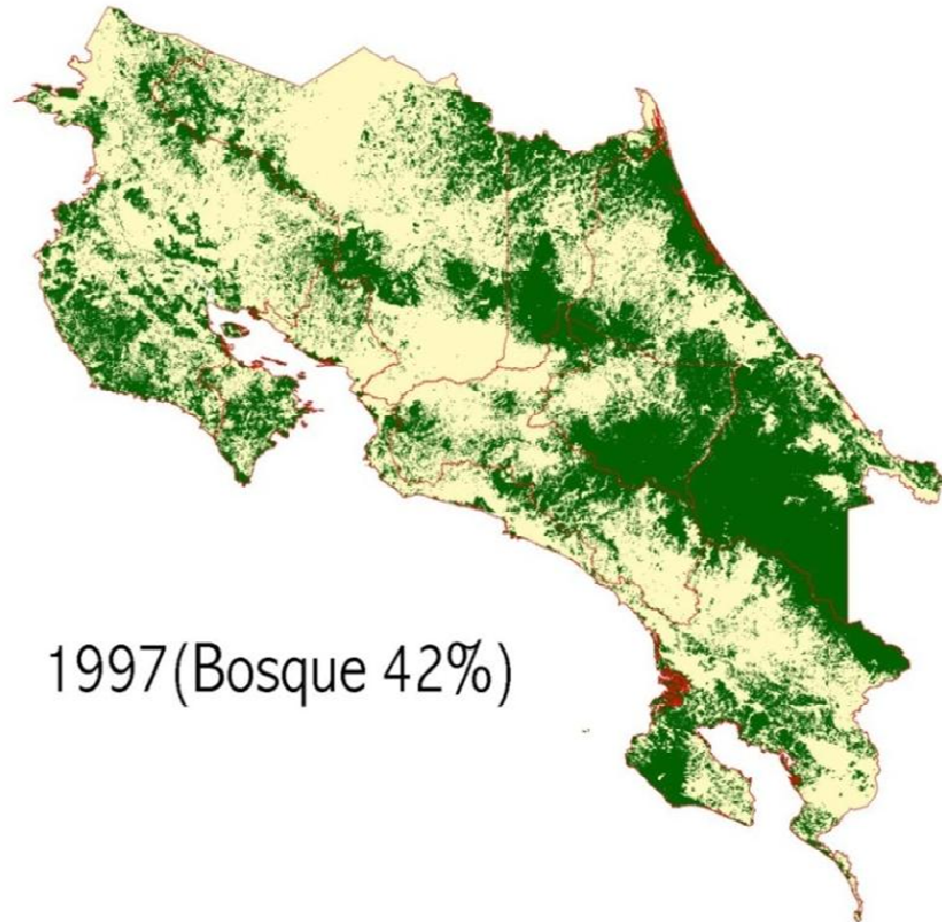


RESULTADO DE DIFERENTES ESTUDIOS DE COBERTURA FORESTAL DE COSTA RICA 1940-1990



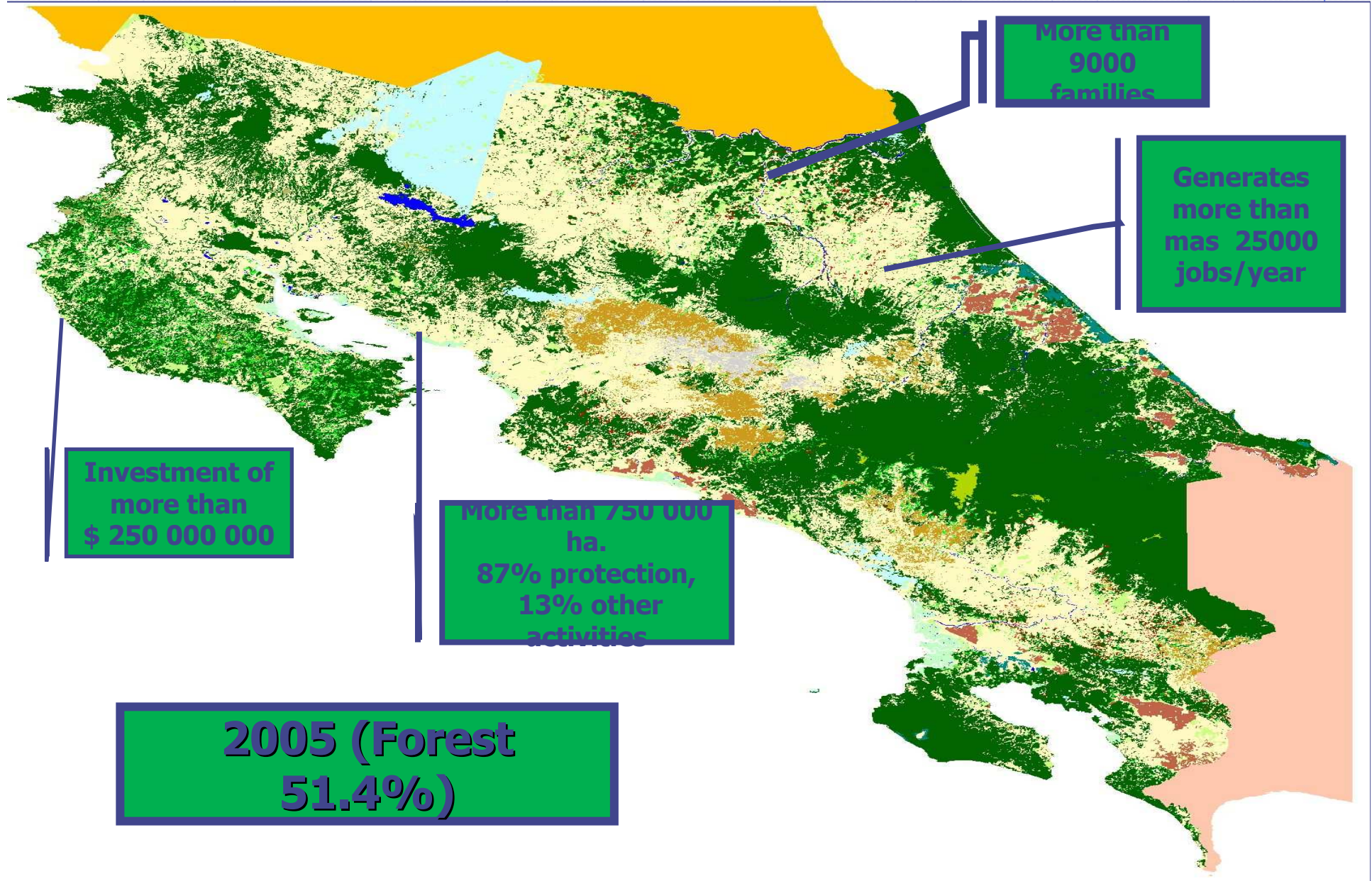
Forest Cover increasing due to domestic incentives

ESTUDIO DE COBERTURA FORESTAL DE COSTA RICA CON
IMÁGENES LANDSAT TM 7 PARA EL AÑO 1997

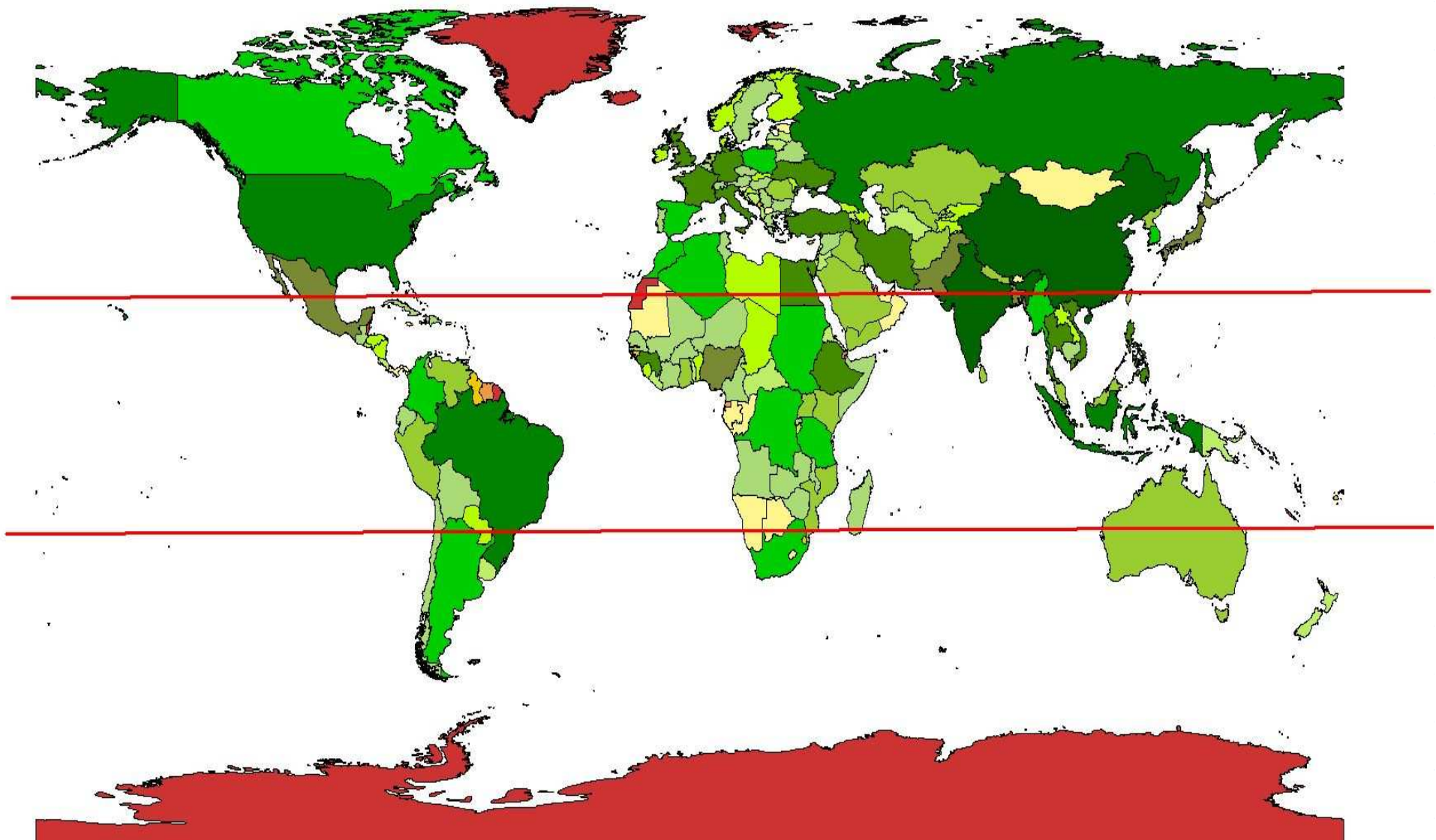


1997 (Bosque 42%)

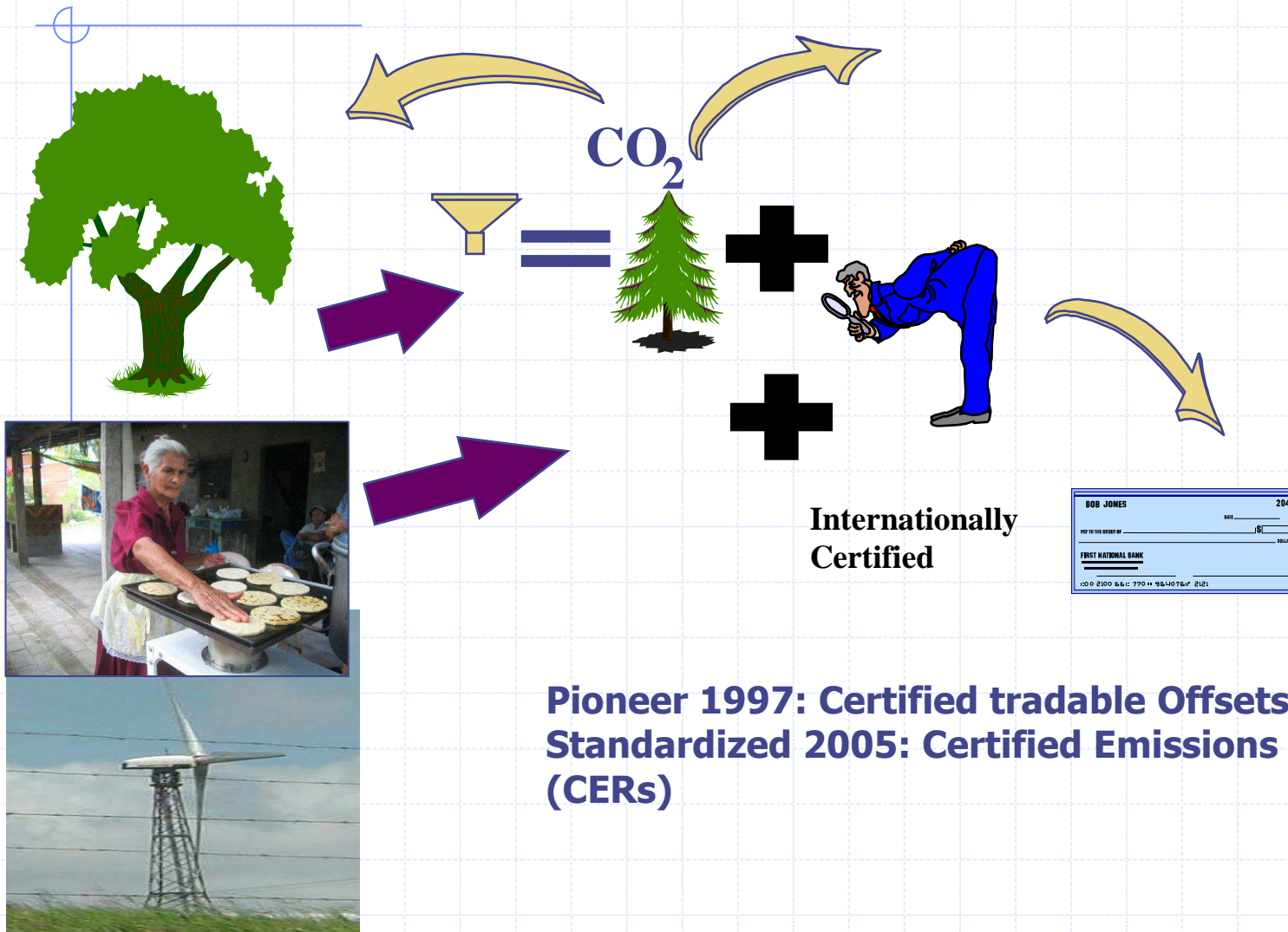
Forest cover by 2005 keeps growing



World's Tropical Forest may grow back after 2010 Cancun Agreements



...Part of the money should come from CO2 market



Ref: Castro et al. 2005

Example 5: Conflicts versus innovation



Military occupation and damage of
Costa Rican territory by the
Government of Nicaragua versus
Aerospace regional programs

October 27, 2010

Costa Rica has both limited defense and null attack capabilities

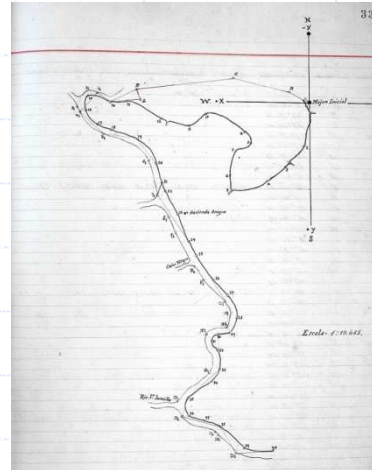
Nicaraguan Military Gunship MI-17; used to transport troops to Costa Rican territory



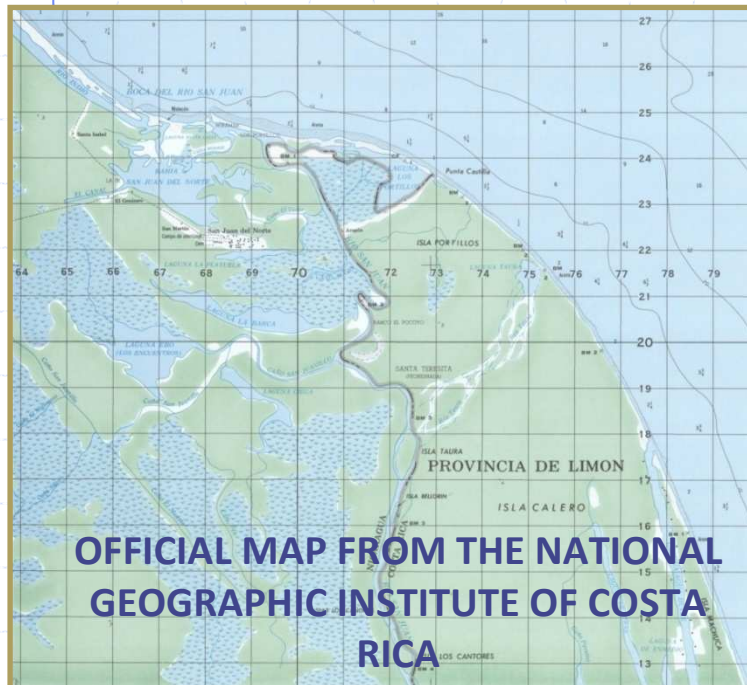
Civil helicopter *rented* by the Costa Rican police forces, to transport policemen to the area occupied by Nicaragua today



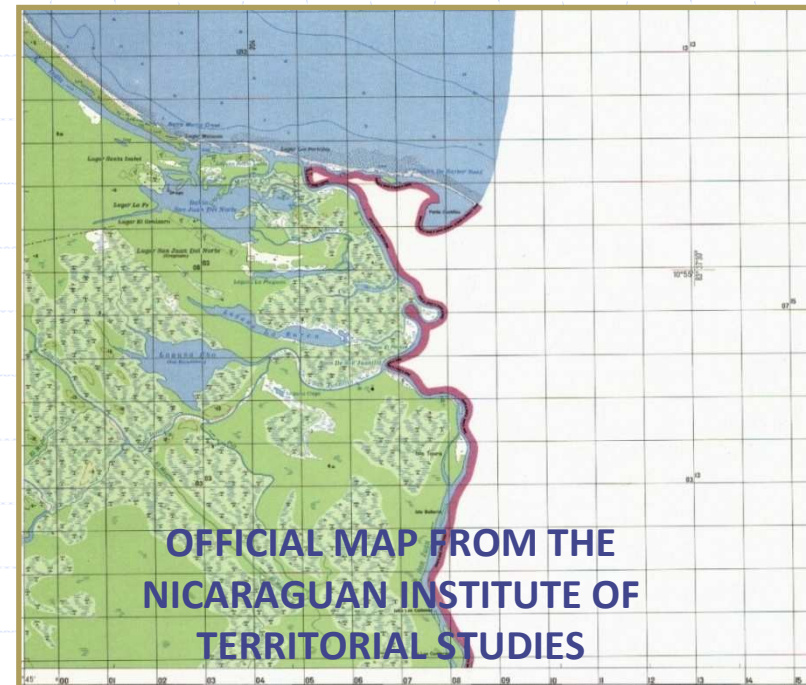
Effective cartographic comparison between both official sources, and the sketch of the “Alexander Award” (1898)



“ Alexander Award”
Award X of March 2, 1898
Volume I, page 33



OFFICIAL MAP FROM THE NATIONAL
GEOGRAPHIC INSTITUTE OF COSTA
RICA



OFFICIAL MAP FROM THE
NICARAGUAN INSTITUTE OF
TERRITORIAL STUDIES

Increasing sediment deposits and troops presence in Costa Rican territory since October 27, 2010





November 11, 2010

A man-made canal through
Costa Rican territory from
Harbor Head (Laguna Los
Portillos in Spanish) to the San
Juan River



November 14, 2010



November 26, 2010



Aerospace and Climate Change

- ◆ Developing new technologies that either have a role in reducing emitted CO₂ or improving resilience and adaptation to climate change.
- ◆ The Government of Costa Rica is supporting the emerging national aerospace industry: Ad Astra Rocket Company, ACAE, CORAAL.
- ◆ Central America Aerospace Cluster: *Launch of the National Program for Aerospace Development and Regional Integration of Central America in New Technologies Generation (July 2010)*



DAEDALUS Project

- ACAE is building an aerostatic globe that will allow to obtain climate predictions, it will measure the temperature and concentration of CO₂ in the atmosphere.
- The project is being sponsored by the Ministry of Foreign Affairs and financed by SICA the regional Government entity.
- The first launch was successfully made on December 18th

Ecodiplomacy: First conclusions

- ◆ We are evolving from economic globalization to environmental interdependency.
- ◆ We are evolving from politicians' short-term cycle to environmental long-term impacts and remedies.
- ◆ We will need more -not less- negotiations and multilateral agreements...even in times of financial crisis and regional or local conflicts.
- ◆ Ecodiplomacy lives in a greenish fish bowl

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