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ENVIRONMENTAL CERTIFICATION IN THE AMERICAS

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Environmental Regulation Instruments

- Instruments and mechanisms for achieving environmental policy goals:

State Intervention

- Compulsory Instruments
  - *Mandatory regulations*
- Mixed Instruments
  - *Subsidies & pollution taxes*
- Voluntary Instruments
  - *Self-regulatory programs*

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Classification of Policy Instruments Based on Decentralization and Flexibility in Individual Decision-making

← Minimum Flexibility →	← Moderate Flexibility →	← Maximum Flexibility →
← Maximum Government Involvement →		← Increased Private Initiative →
Control-Oriented →	← Market-Oriented →	← Litigation-Oriented

Regulations and Sanctions	Charges, Taxes and Fees	Market Creation	Final Demand Intervention	Liability Legislation
General Examples:				
Standards: Government restricts nature and amount of pollution or resource use for individual polluters or resource users. Compliance is monitored and sanctions imposed (fines, closure, jail terms) for noncompliance	**Effluent or User Charges:** Government charges fee to individual polluters or resource users based on amount of pollution or resource use and nature of receiving medium. Fee is high enough to create incentive to reduce impacts	**Tradable Permits:** Government establishes a system of tradable permits for pollution or resource use, auctions or distributes permits, and monitors compliance. Polluters or resource users trade permits at unregulated market prices	**Performance Rating:** Government supports a labeling or performance rating program that requires disclosure of environmental information on the final end-use product. Performance based on adoption of ISO 14000 voluntary guidelines. Eco-labels are attached to "environmentally friendly" products	**Strict Liability Legislation:** The polluter or resource user is required by law to pay any damages to those affected. Damaged parties collect settlements through litigation and the court system

Source: Huber *et al*.1999

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Environmental Management Sectors in Selected LAC Countries

Country	National Environmental Law	Ministry of Environment	Environment Chapter in Constitution	Executive Environmental Agenda
Barbados		In process		
Bolivia	1992/95	1992		
Brasil	1981	1992		
Chile	1994	1992*		
Colombia	1993	1992		
Ecuador	1996	1992		
Jamaica	1991			
Mexico	1988	1992		
Peru	1990	1992*		
Trinidad y Tobago	1995			
Venezuela	1976	1992		

* National Comission

Source: Huber *et al*.1999

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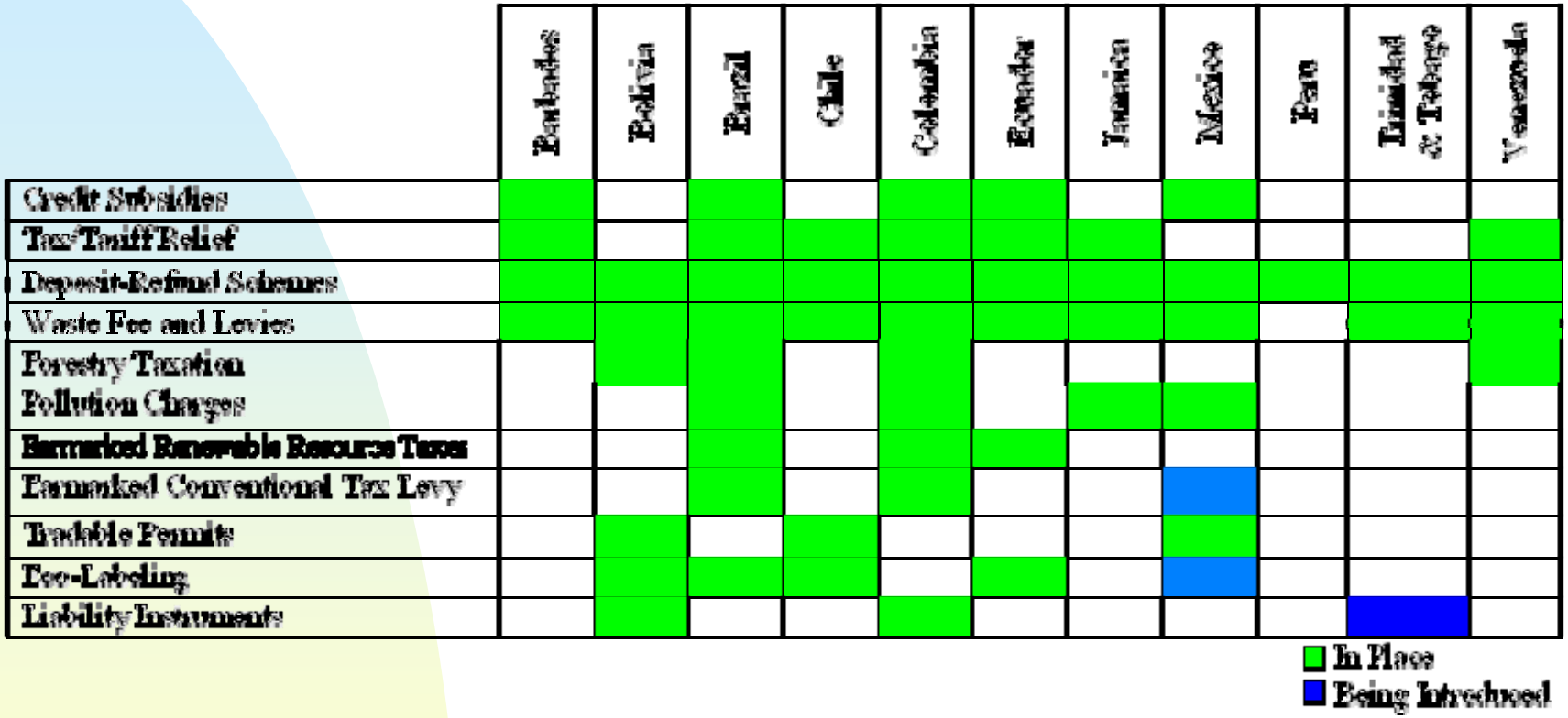
Application of Market-Based Instruments in LAC Countries



Source: Huber *et al*.1999

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Industrial Pollution Management: A New Approach

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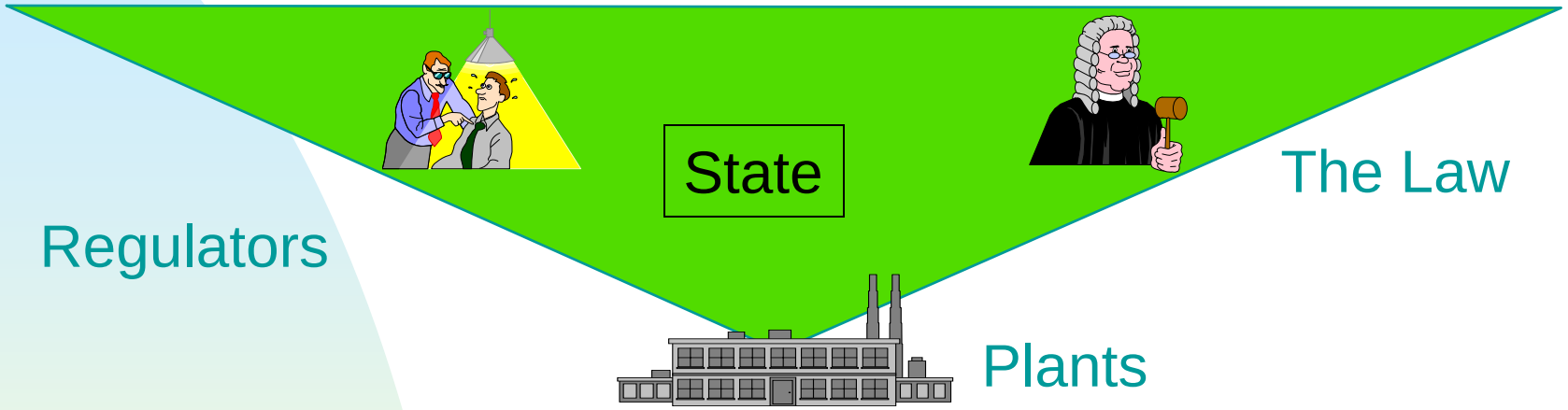
The State



In the traditional understanding of pollution control issues, the State holds center stage. Two principal agents, Regulators and The Law, set and enforce rules of environmental behavior. Consequently, the policy analysis literature has focused on appropriate roles for 'ex ante' regulation (standards vs. market-based instruments) and 'ex post' liability claims by injured parties

Source: DECRG, World Bank

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Developing Countries

In Less Developed Countries “the State” has weak foundations :

- Scarce Human and Technical Resources
- Poor Information and Analytical Capacity
- Too Much Bureaucracy
- Little Political Support

Source: DECRG, World Bank

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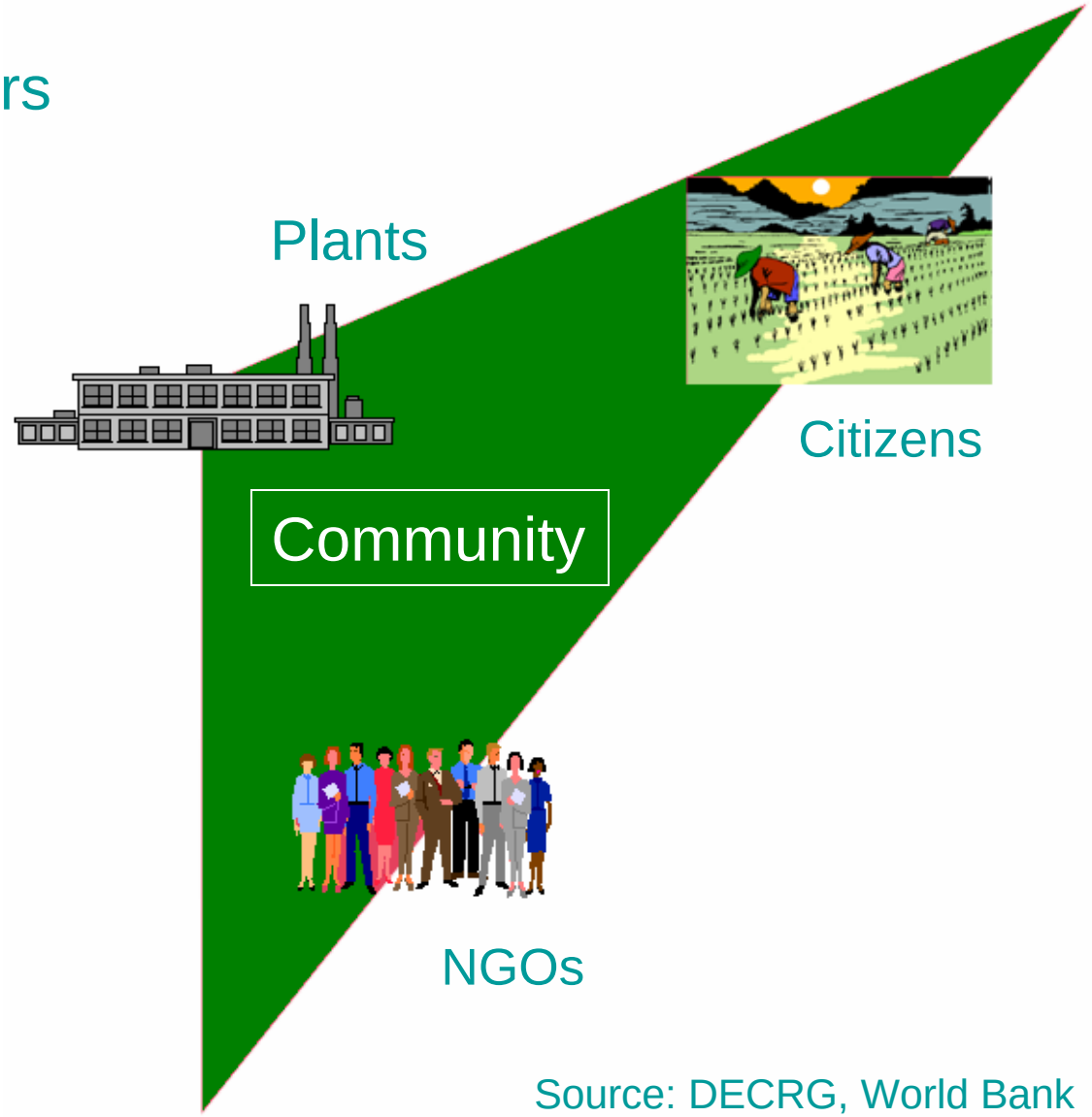
Community

Where formal regulators are absent or ineffective, 'informal regulation' is implemented through:

- Community groups or NGOs
- Power
- Social Norms
- Negotiations



Source: DECRG, World Bank

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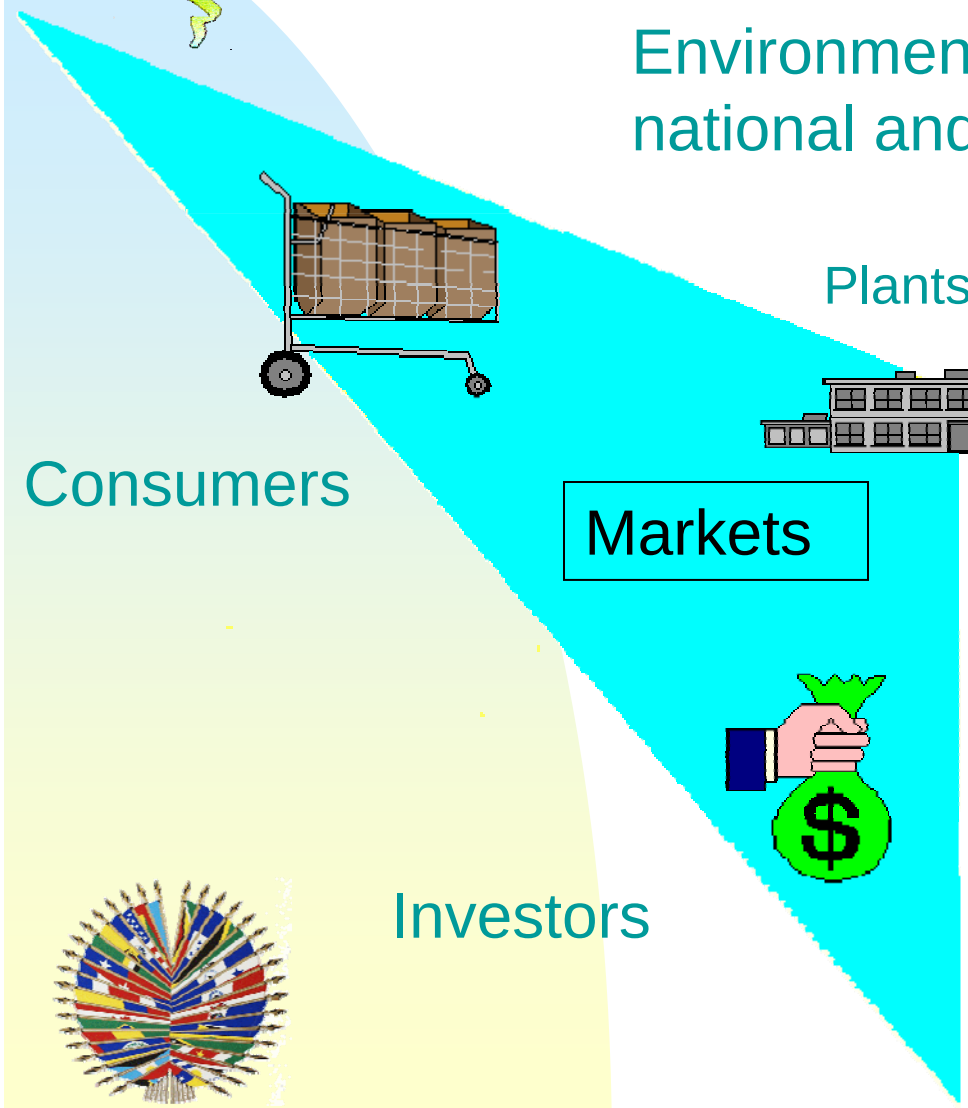
Markets

Environmental Considerations → local, national and international markets



- Significant factor in consumer decisions
- Investor interest increase in new stock markets
- Public knowledge of a firm's environmental performance may translate to large expected gains or losses over time

Source: DECRG, World Bank

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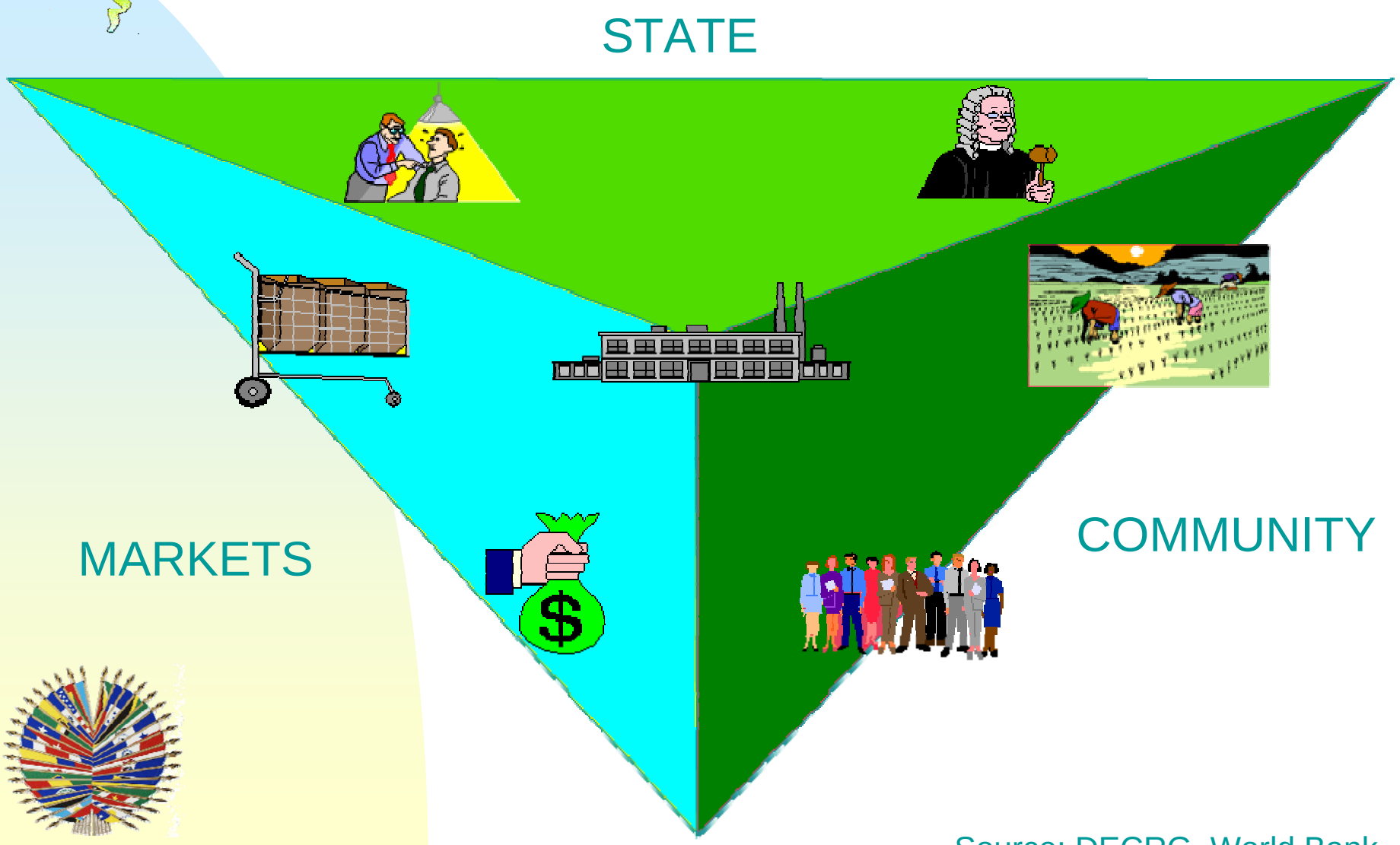
The New Model: Multiple Agents, Multiple Incentives



Source: DECRG, World Bank

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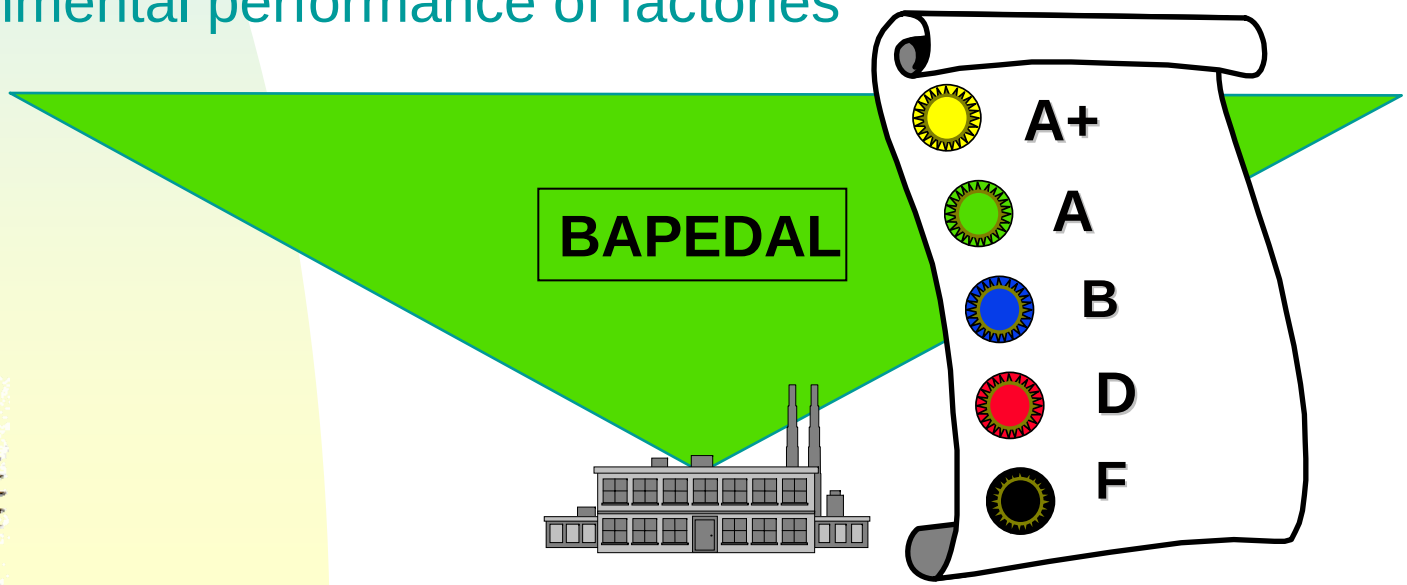
PROPER: Indonesia's Public Disclosure Program

The Government of Indonesia recognizes its weak enforcement of regulation and the risk of severe pollution damage involved in manufacturing activity

Indonesia's National Pollution Control Agency (BAPEDAL) initiated a program, PROPER, for rating and publicly disclosing the environmental performance of factories



Source: DECRG, World Bank

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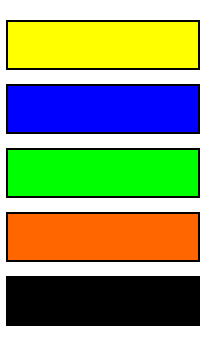
PROPER's Color Scheme

Performance Levels	Performance Criteria
GOLD	Clean technology, waste minimization, pollution prevention, conservation, etc.
BLUE	Above standards & good maintenance, housekeeping, sludge management, etc.
GREEN	Efforts meet minimum standards
RED	Efforts don't meet standards
BLACK	No pollution control effort, Serious environmental damages

Incentives



Public Praise

Public Pressure &
Legal Enforcement

Source: DECRG, World Bank

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Environmental Certification Programs:

Regulatory Mechanisms Under the New Approach

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Certification & Eco-labeling

- Certification and eco-labeling programs are environmental conservation strategies in which the consumer chooses the environmental track of the product he purchases
- These programs allow the verification of fulfillment of certain practices by a third party. In general, environmental certification programs include social responsibility and social justice standards
- The implementation of these programs, unlike other market instruments, does not correspond to the state but particular firms

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Approaches to Certification

- Process-based
  - Measure intent more than outcome
  - Establishment of an Environmental Management System
  - Allow for continuous improvement
  - Examples:
    - ISO 14001
    - Green Globe

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Approaches to Certification

- Performance-based
  - Measure achievement more than intent
  - Set clear environmental and social standards
  - More easily measure the environmental and socioeconomic impacts of a business
  - More transparent and less expensive
  - Allow for comparisons
  - Involve a variety of stakeholders
  - Equally suited for small and large business
  - Examples:
    - Certification for Sustainable Tourism

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Methodology

- Green issues:
  - Certification of farming sector
  - Certification of forestry sector
  - Certification of tourism sector
- Sources
  - Internet
  - E-mail
  - Phone interviews
- ISO 14000 not considered
- Focus in:
  - Program growth
  - Economic benefits
  - Labor benefits

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CERTIFICATION OF FARMING SECTOR

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Effects of Organic Agriculture

- Chemical fertilizers
- Herbicides
- Phytohormones

- Labor
- Human health
- Premium prices

- Costs
- Productivity
- Utilities

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Most Active Certification Programs

EUREPGAP

- Flowers

- Cereals

- Vegetables

- Fruits

- Meat

- Coffee

- Banana

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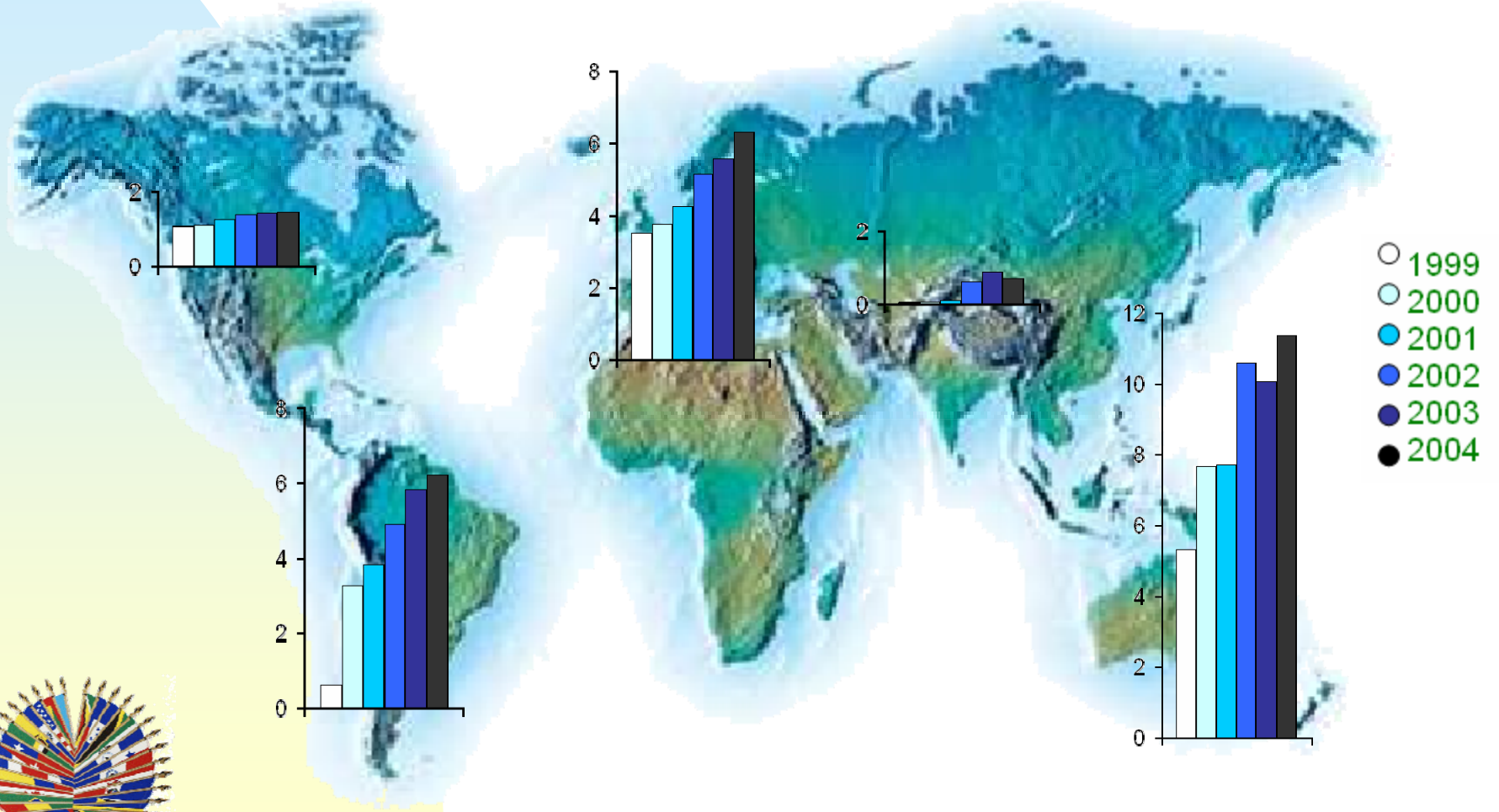
Current State (Feb. 2005)

Areas certified under the previous farming programs



Years 1999 - 2004. Data in millions of hectares. Source: IFOAM

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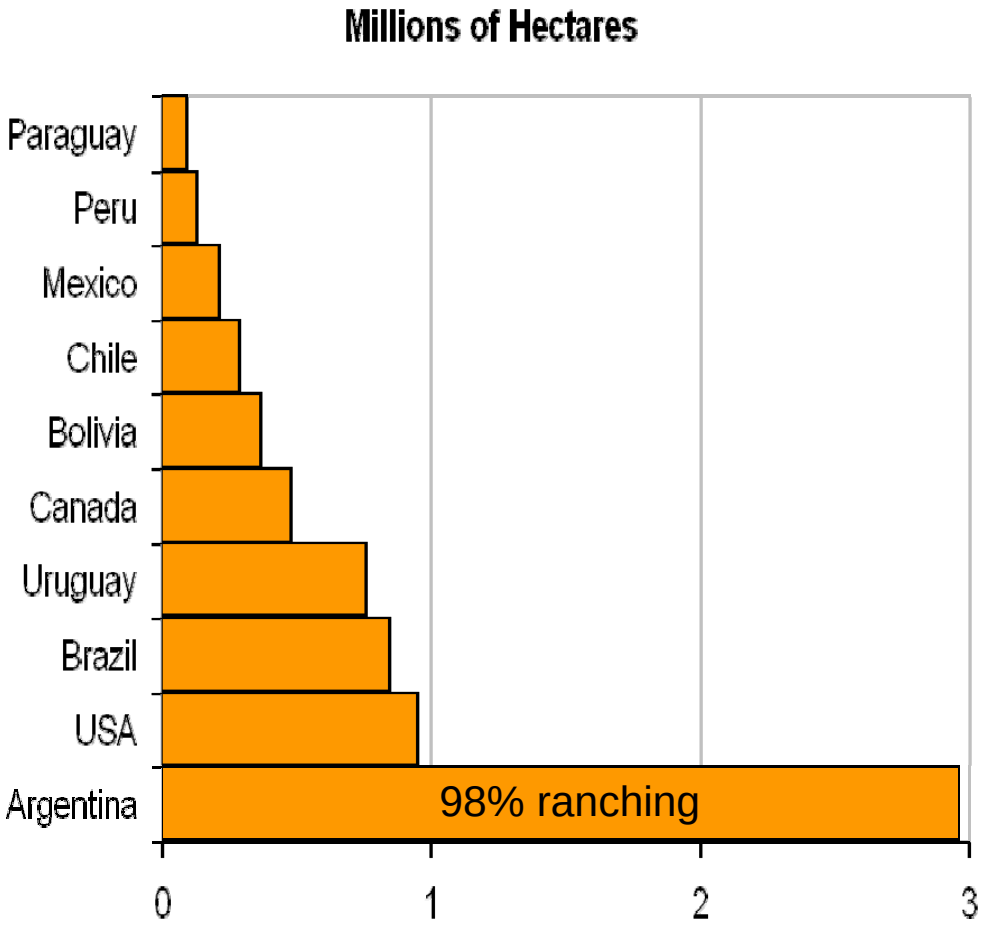
Current State (Feb. 2005)

Certified areas in various countries of the Americas

- In terms of **cultivated area**, Argentina is the mayor certifier (its 3 million certified hectares represent more than 40% of the certified area of the continent; 98% of this amount is made up by ranching)
- In terms of **percentage of cultivable area**, Uruguay and Costa Rica are the leaders in number of certifications



Years 1999 - 2004. Data in millions of hectares. Source: IFOAM

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CERTIFICATION OF FORESTRY SECTOR

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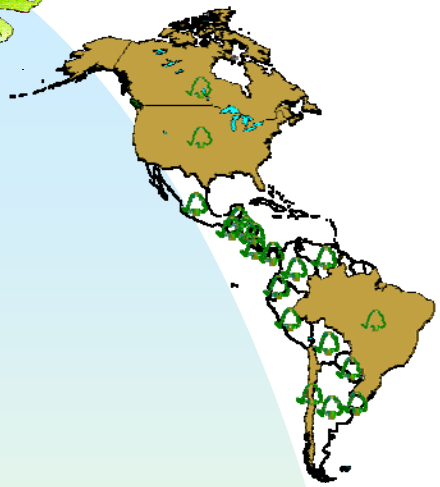
Most Active Certification Programs



FSC (*Forest Stewardship Council*)
International ONG with forest handling standards and safekeeping chain for sustainability and environmental conservation

SFI (*Sustainable Forestry Initiative*)
Program that operates U.S.A. and Canada with less rigorous standards than those of FSC. Used by many firms to improve corporate image

CSA (*Canadian Standards Association*)

System created with PEFC approved standards.
CSA's processes are similar to those of ISO14001

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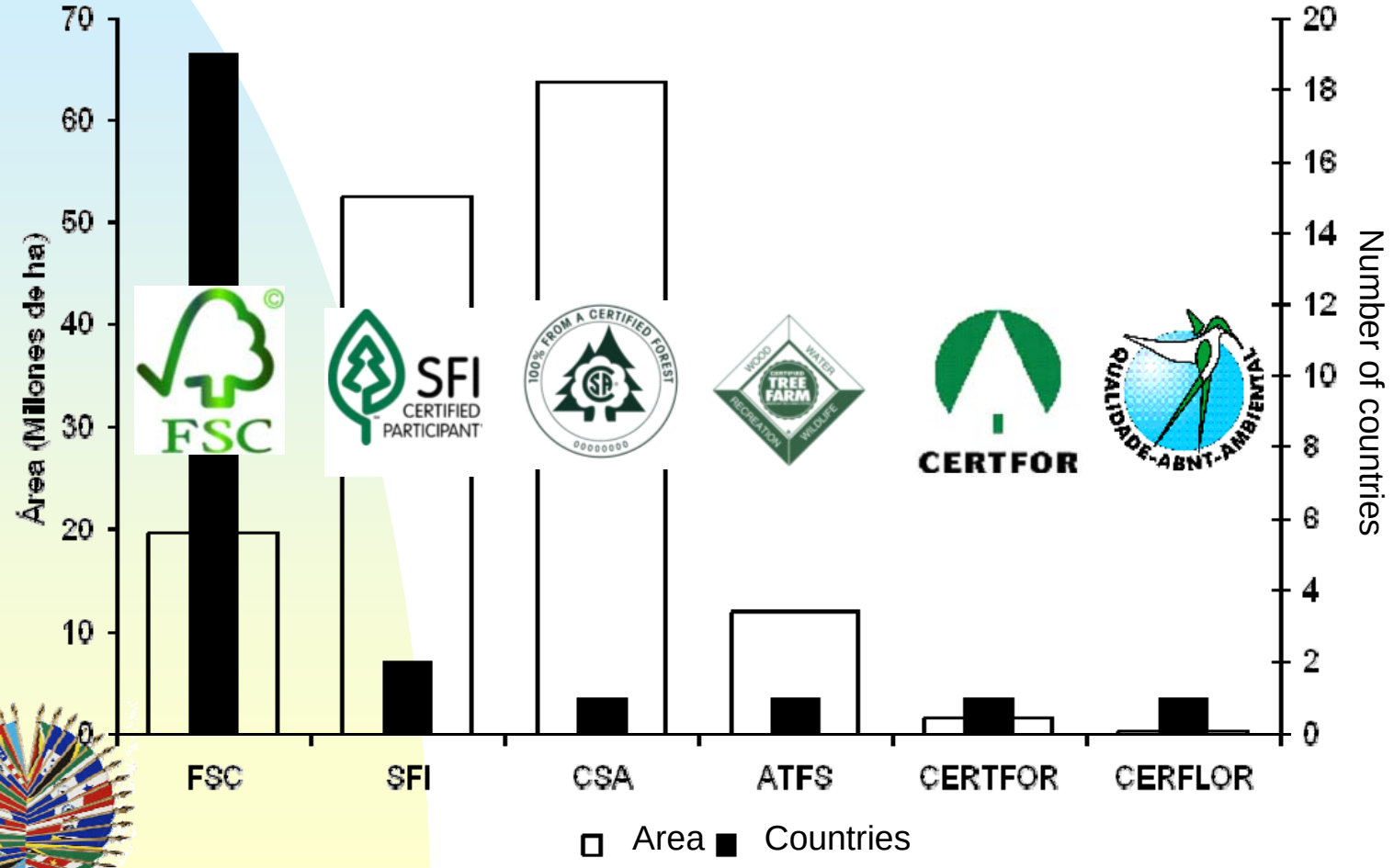
Current State (May 2005)

FOREST MANAGEMENT CERTIFICATION IN OAS MEMBER COUNTRIES



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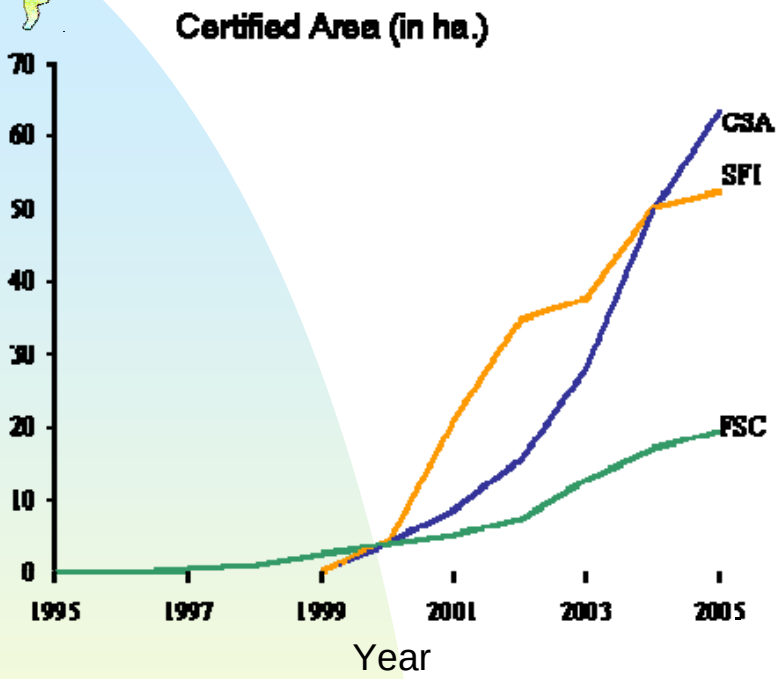
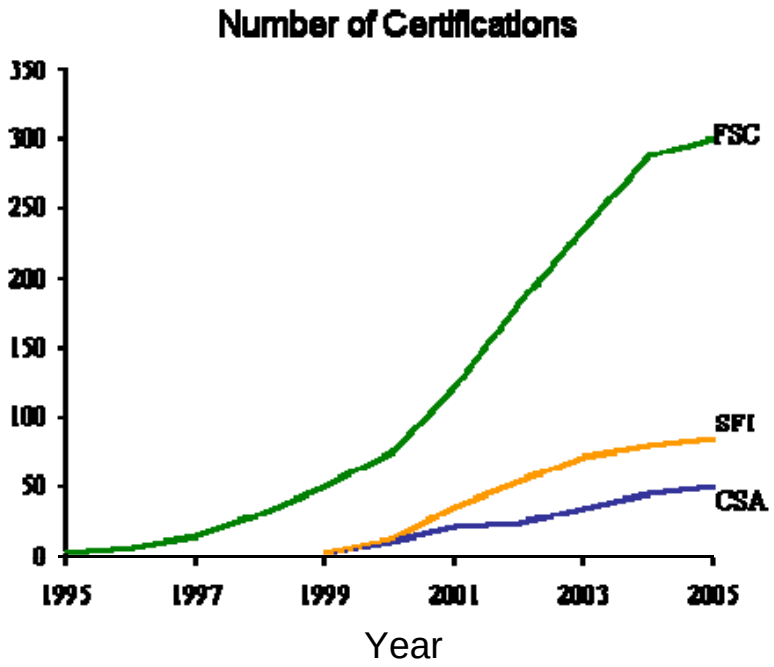
Growth in OAS





While the CSA and FSI certify, on average, areas greater than 600'000 hectares, FSC concentrates on small plantations in countries with various land owning conditions. Also, FSC's accreditation standards are more rigorous than CSA's and FSI's which gives this certification more credibility in the "green" market; thus, FSC is an appropriate model to be implemented in LAC

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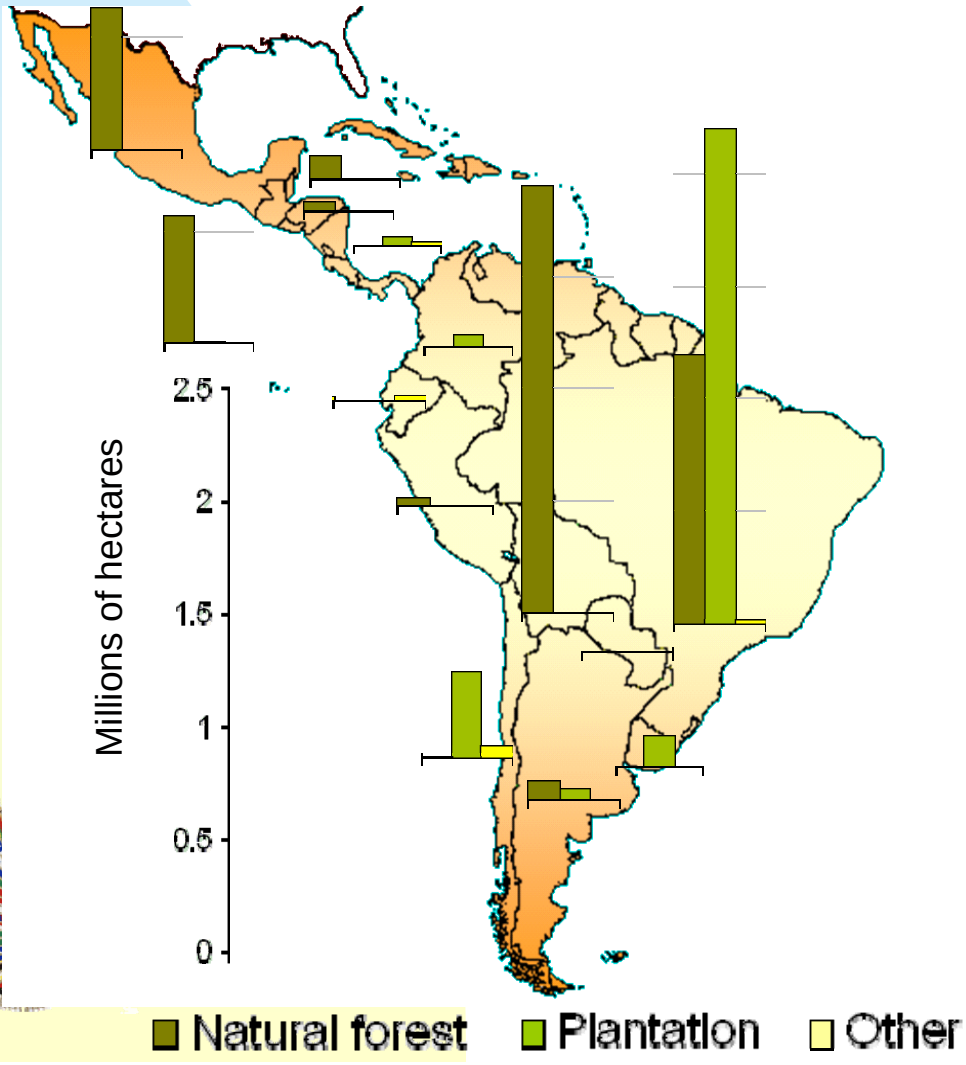
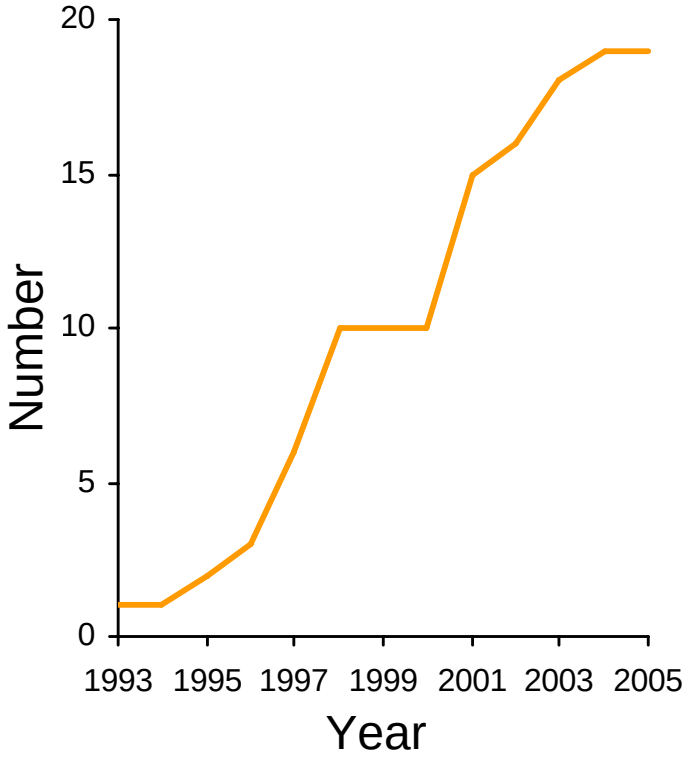
FSC in OAS

TYPES OF CERTIFIED AREA IN LAC



OAS MEMBER STATES WITH FSC CERTIFIED OPERATIONS



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CERTIFICATION OF TOURISM

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Most Active Certification Programs

Green Globe 21

Operates in 58 countries (10 OAS members). Certifies hotels, communities and tourism infrastructure construction and design agencies

Blue Flag

Certifies quality of water, security and services, as well as environmental education, information and performance in general

Only the blue colored countries have national tourism certification programs other than Green Globe 21 y Blue Flag

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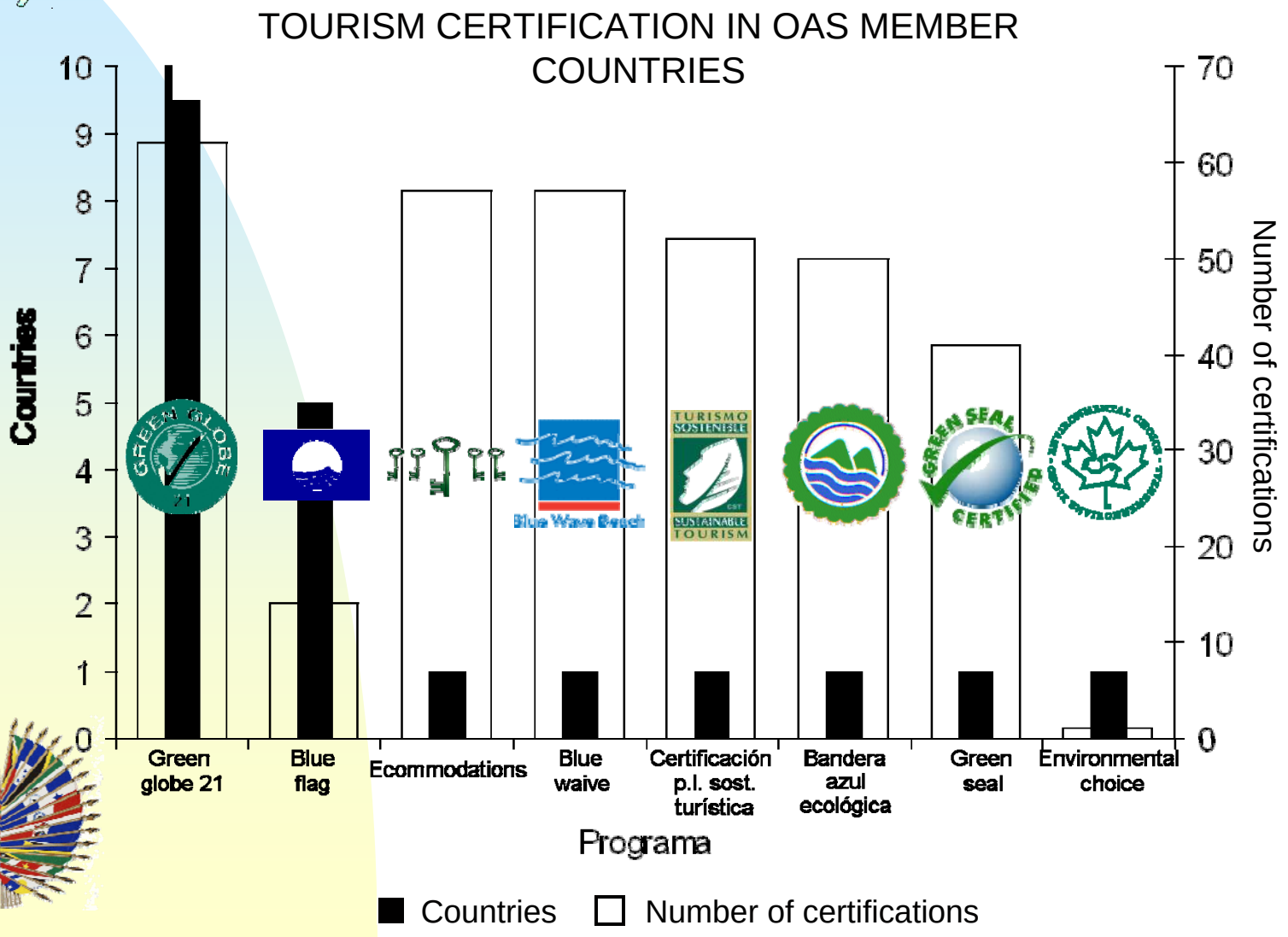
Current State (May 2005)



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BENEFITS OF CERTIFICATION

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Environmental Benefits

LESS

- Pollutants 
- Erosion 
- Energy expenditure 
- Illegal timber → poaching and colonization 

MORE

- Conservation of natural areas 
- Environmental education 
- Imitation of sustainable practices 
- Diversity 

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Economic Benefits

The presence and magnitude of economic benefits varies between regions; however, the most generally observed ones are the following:

- Better positioning in current market, better corporative image
- Access to new markets
- Creation of new (“green”) markets

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Economic Benefits

- Premium prices
  - In 2004, certified Utz Kapeh coffee sold at a price premium of $0.04/lb (while international coffee prices varied between $0.6/lb and $1.00/lb) (Utz Kapeh)
- Market has grown and sells keep increasing
- Sales of organic food an drinks in USA in 2002 were estimated in more than $11 billion, 2% of total (Produce Marketing Association)
- Organic fruits and vegetables in USA were 4% of 2002 sales (Produce Marketing Association)

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Economic Benefits

Forestry

- Better conditions for negotiating price (Sociedade Brasileira de Silvicultura)
- USA regions with few certified plantations: mills are willing to pay more (American Tree Farm System)
- Chains of custody may improve sale price
  - Only 17% of the products made out of FSC certified wood have chain of custody (Diamond)

Committed dealers: Home Depot, Lowe's, Ikea, Kinko's…

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Economic Benefits

Tourism 

- The implementation of certification rules results in savings in terms of:
  - Energy
  - Drinking water
  - Residual water treatment
  - Waste generation
  - Personal cleaning
- Government support (Pennsylvania y Georgia)
- Marriott Worsley Park (Manchester, UK) has saved up to **$90.000** annually

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Labor Benefits

- New demand for profiles required by certifier programs and agencies
- Better managed harvest cycles lead to more permanent jobs
- Promotion of qualification
- Improvement of working conditions
- Better performance of employees
- Larger labor demand
- Non inclusion of social schemes causes problems
- Higher participation of local communities

Fair employment

USDA ORGANIC

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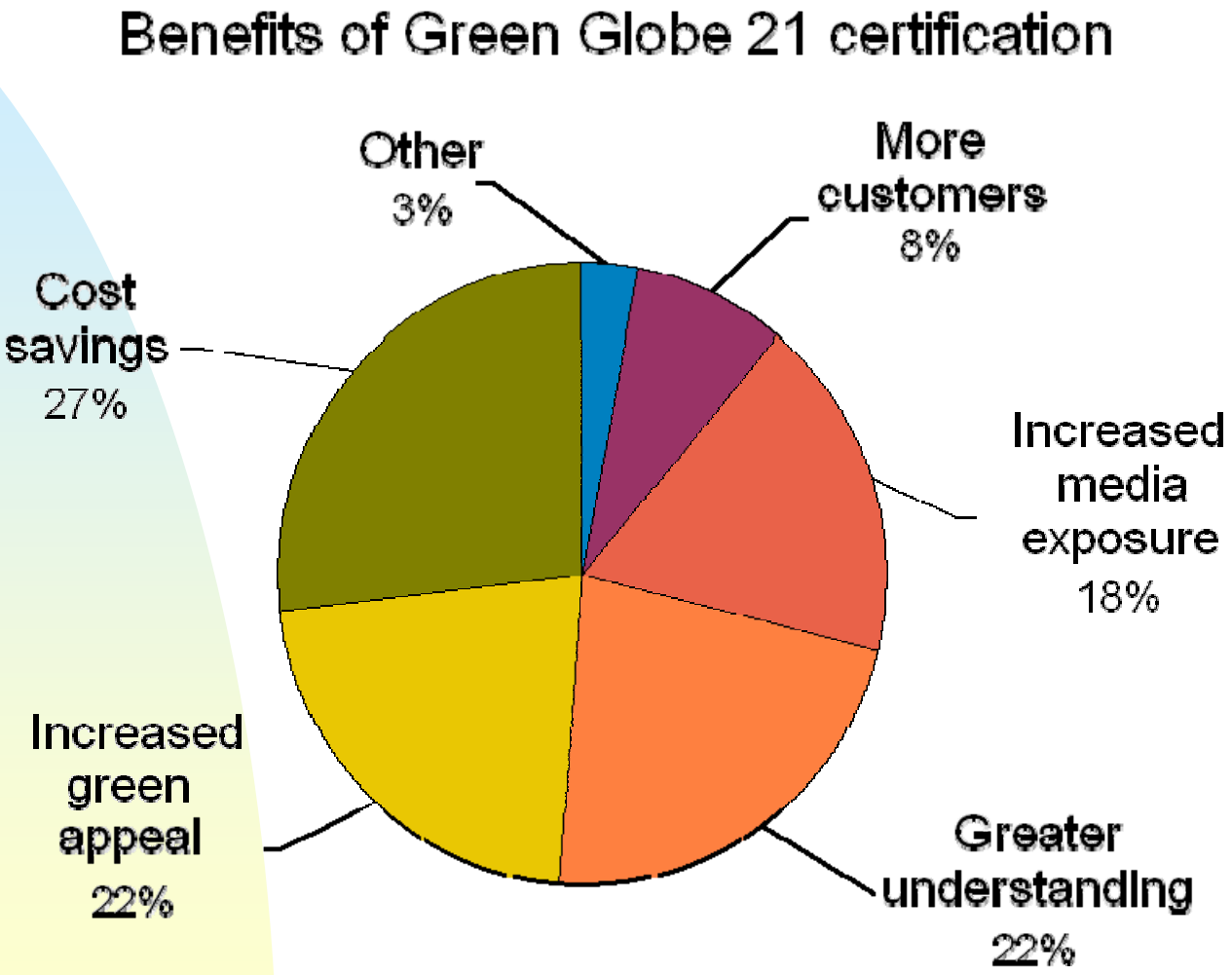
Green Globe 21 – Caribbean



- 2004 CAST survey (all certified hotels were surveyed)

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Green Globe 21 – Caribbean

Results of the 2004 Caribbean Alliance for Sustainable Tourism (CAST) survey on Green Globe 21

Out of the 30 members where asked about their experience as program participans:

- 90% saw a reduction in both water and electricity bills
- 67% saw recognizable staff motivation
- 40% stated that the hotel received international exposure as a result of their Green Globe participation;
- 93% of properties stated that they now have an effective management system in place and
- 91% are extremely or very satisfied with being certified
- 82% are extremely or very satisfied with the benefits of being Green Globe 21 certified

Source: Green Globe Trotter 2(2), Feb. 2005

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OPPORTUNITIES

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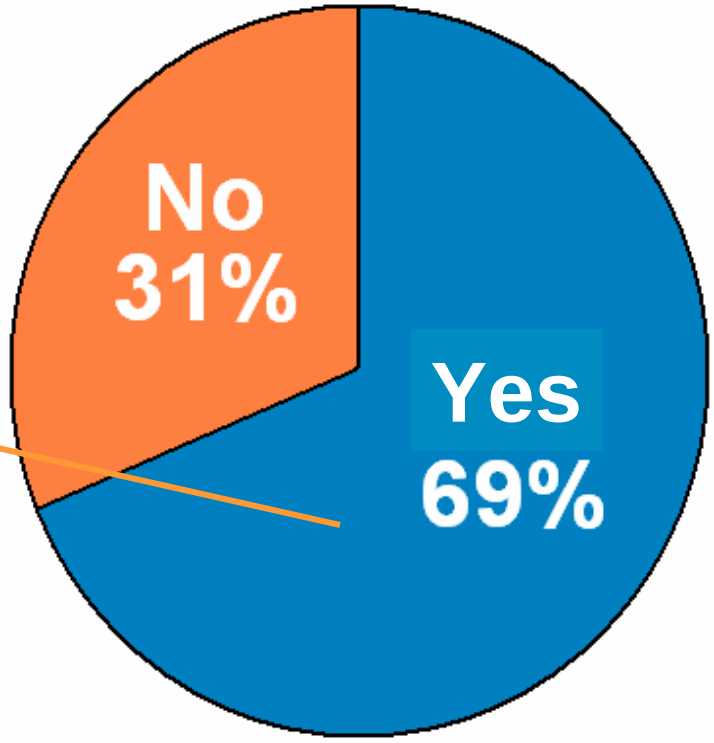
Corporative Awareness

- Global Environmental Management Initiative (GEMI) surveyed 28 companies in multiple industrial sectors

Does your company have a formal definition/principles for Sustainable Development (SD)? (n=26)



This percentage is up from a 1999 GEMI survey, in which only 20% of companies had a formal definition of SD.

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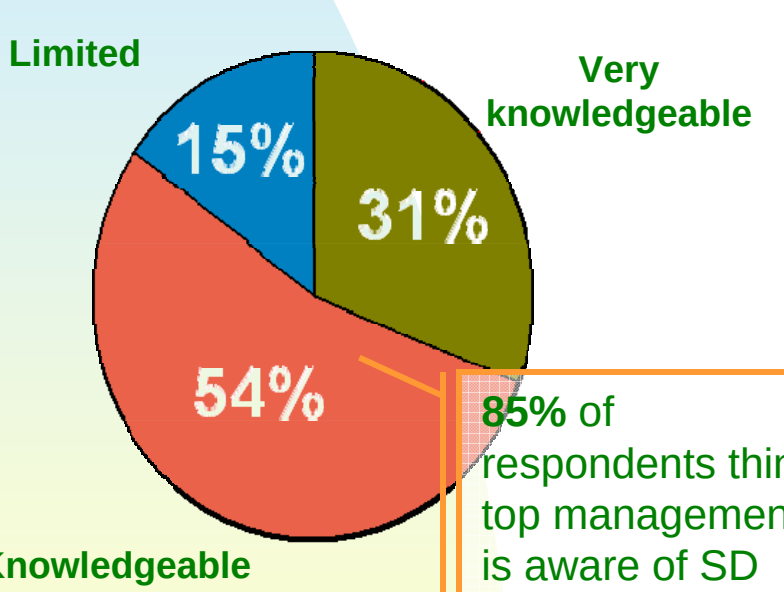
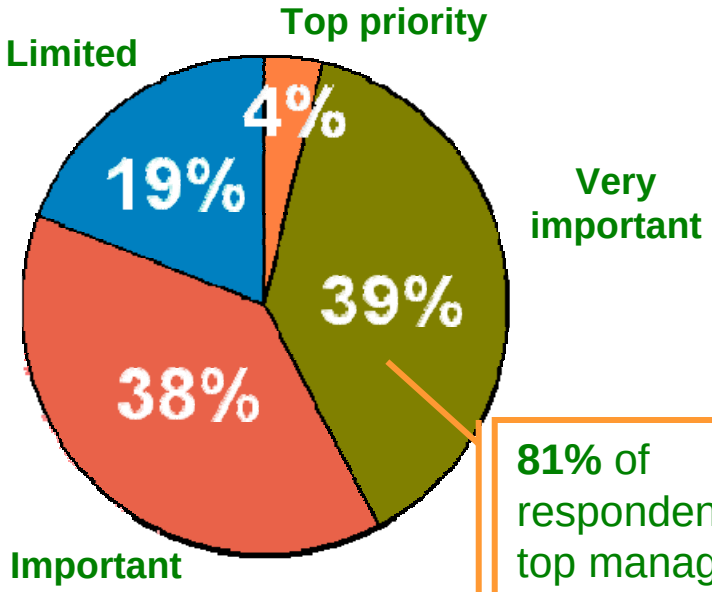
Corporative Awareness

Rate top management awareness of Sustainable Development issues (n=24)



85% of respondents think top management is aware of SD issues

Rate top management commitment to Sustainable Development (n=26)



81% of respondents think top management is committed to SD

In most companies, top management is considered knowledgeable about, and committed to, Sustainable Development issues

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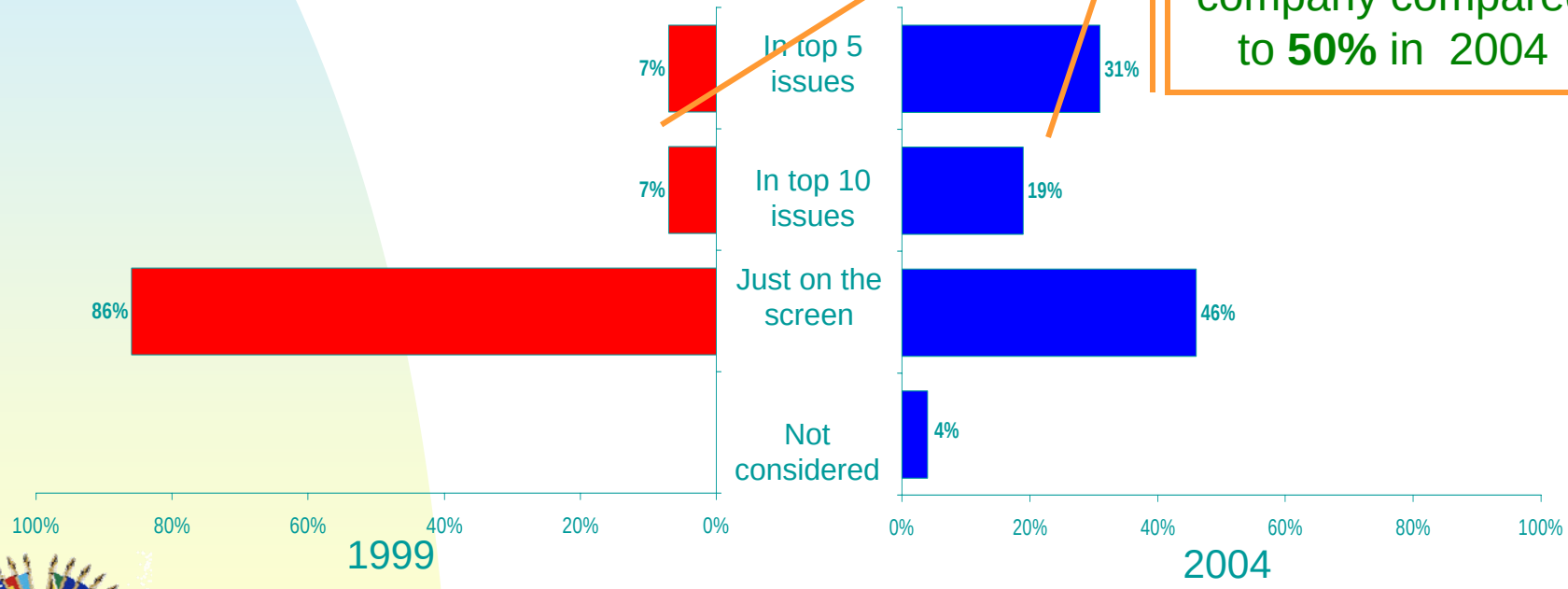
Corporative Awareness

Where does Sustainable Development fall on your company's "radar screen" of issues?



In 1999, only **14%** felt that SD was a top 10 issue to the company compared to **50%** in 2004

When compared to 1999 survey results, more companies now consider Sustainable Development a top issue

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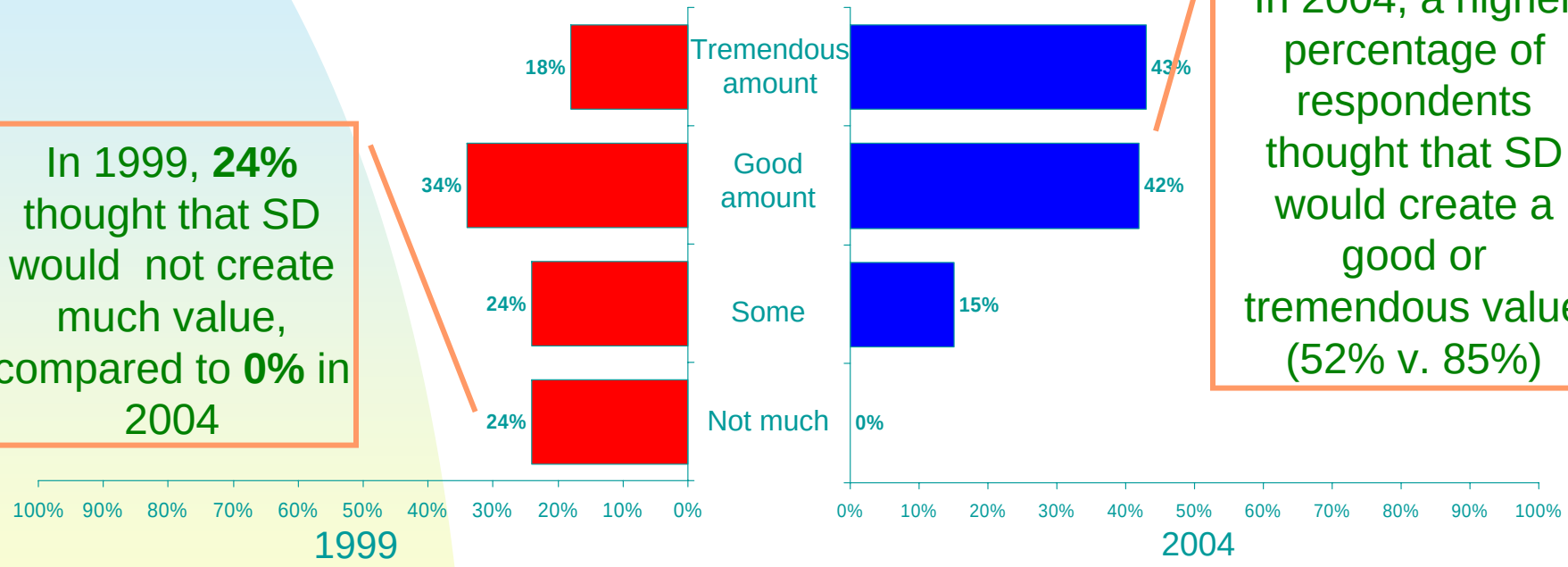
Corporative Awareness

How much value would a Sustainable Development-based strategy create?

In 1999, **24%** thought that SD would not create much value, compared to **0%** in 2004



In 2004, a higher percentage of respondents thought that SD would create a good or tremendous value (52% v. 85%)

This favorably compares to 1999 when 24% of those surveyed thought it wouldn't create much value

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International Market of Certified Products

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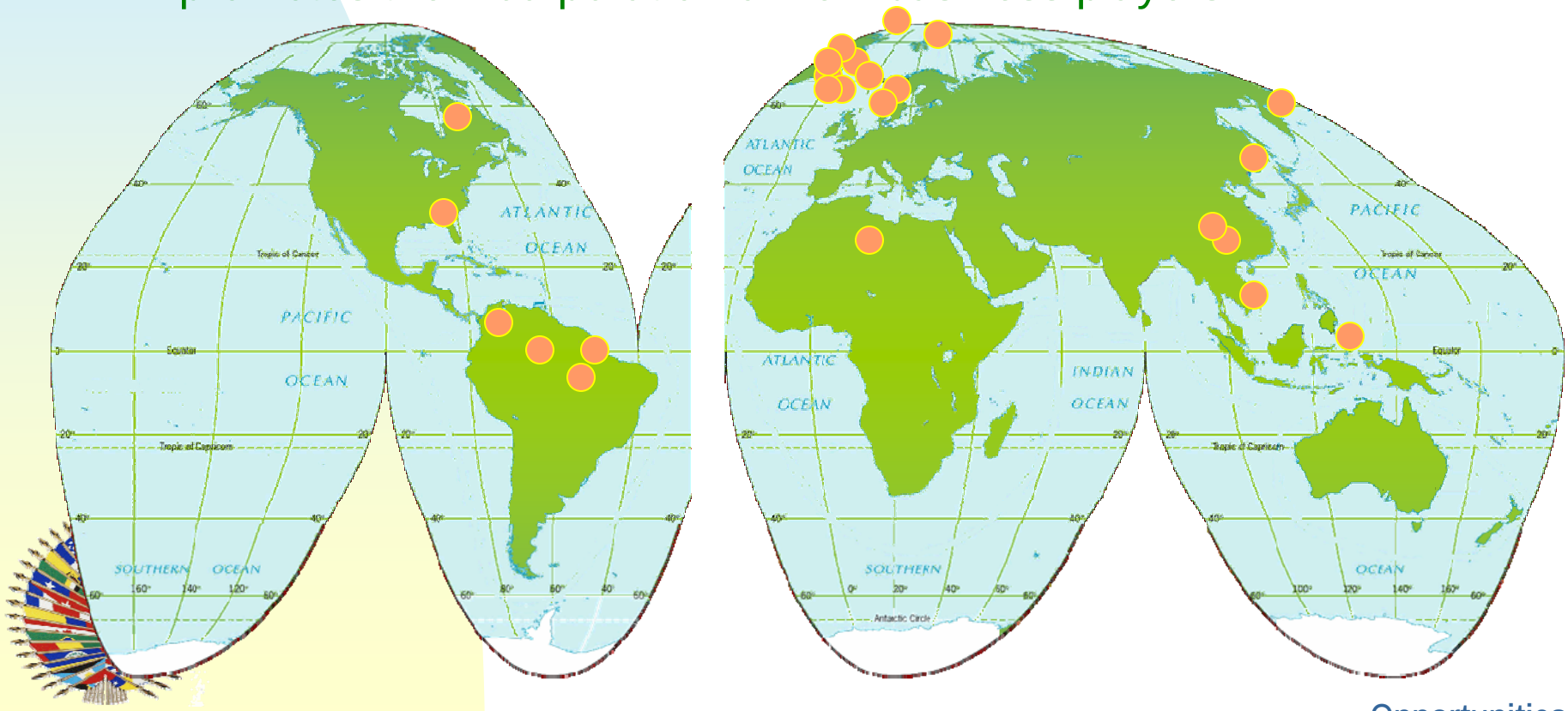
Private Promotion of Certified Products

- **Global Forest and Trade Network of World Wildlife Fund** (WWF): provides the productive sector with technical support for its practices conversion, creates producer-consumer links and promotes the incorporation of new business players



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What Could Governments Do?

- Help promote certified markets and certification programs
- Fund certification / Create low-cost certification programs
- Promote the purchase of certified products
- Discourage purchasing of non-certified products
- "Green" the government

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Challenges for Certification Programs

- Becoming self-supporting
- Effectively combining process and performance based approaches
- Marketing themselves
- Increasing credibility
- Avoiding conflicts of interest
- Integrating social parameters

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Impact of Voluntary Programs on Local Communities

- Potentially beneficial effects like:
  - Hiring and training of locals
  - Improvement of environmentally sound infrastructure

- However if community is not represented as a stakeholder, it may be overlooked

PUBLIC PARTICIPATION

- Some argue that in the early stages of certification the only ones who benefit are the certifying agencies

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Jobs from "green" practices

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Jobs from “Green” Practices

- Job creation potential from pollution-control efforts, energy and water conservation, "clean" industrial technologies and myriad other environmental improvements
  - Plumas Corporation in California, retrains former timber industry employees in forest and watershed restoration
- Advantages include the reduction of dependence on foreign energy sources, opportunities for US exports, demand for domestic labor, and the creation of new jobs
- Environmentally friendly industries also tend to be more labor intensive than mechanized, large-scale production methods

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Jobs from “Green” Practices

“Precious energy is wafting through inefficient windows and doors in buildings that could be retrofitted generating direct and indirect work. Water infrastructure is also woefully inefficient. According to the World Watch Institute's State of the World: 2004 report, 10-30 percent of all water supplied in the country is lost to leakage. Correcting this environmental indifference would stimulate major job creation and, far from "make work," a national effort to improve water treatment and conservation would represent vital and farsighted civic investment”

Source: DiPerna “Jobs and Environment Initiative” MISI

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Jobs from "Green" Practices

- In 1992, environmental protection spending created 4 million jobs nationwide and generated $355 billion in industry sales
- U.S. environmental-protection workforce encompassed 5.1 million jobs in 2004
  - More than 10x the pharmaceutical
  - Almost 3x the chemical industry
- In 2002, pollution-abatement and control programs created, directly and indirectly, roughly 12,000 jobs for sheet-metal workers
- Restoring the nation's degraded fisheries could create 300,000 jobs, as well as improve the social and economic health of coastal communities
- Recycling 150,000 tons of solid waste creates 9 jobs, while incinerating it creates only 2 and land filling only 1
- The petroleum and electric industries generate about 5 jobs per $1 million invested, while the weatherization of buildings to enhance energy efficiency can produce 50 jobs

Source: Management Information Services, Inc.

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Jobs from "Green" Practices

Labor Requirements for Renewable Energy Technologies

Technology	Model Scale Project	Person-Years per MW
Solar PV	2-kW systems	35.5
Wind	37.5 MW	4.8
Biomass Co-Firing	100-750 MW	3.8-21.8

Estimates of total hours required to manufacture, install and service wind and solar equipment, and to collect, transport and process biomass

Source: Virinder Singh & BBC Research and Consulting