



**Promoting Transparency in the Forestry
Sector: Best Practices for Detecting Illegal
and Destructive Logging**

May 31, 2002

**World Resources Institute
USFS and USAID**

A world map with a light blue background and green landmasses, showing the outlines of continents and countries. The map is centered on the Atlantic Ocean.

Defining illegal logging

“Timber harvesting and related activities that are inconsistent with national (or sub-national) laws.”

Extent of Illegal Logging: Estimates

Country	%
Bolivia	80
Brazilian Amazon	80
Cambodia	90
Cameroon	50
Colombia	42
Ghana	34
Indonesia	50-75
Malaysia	33
Myanmar	80
Russia	20 (50 in Primorsky)

International Actions

- **G8 Action Program on Forests**
- **Forest Law Enforcement and Governance Ministerial Conferences: East Asia (2001); Central Africa (2003); Latin America (?)**
- **International Tropical Timber Council Decision (2001)**
- **FAO Experts Meeting (2002)**
- **European Commission Forest Law Workshop (2002)**
- **World Bank/WWF Log Tracking Workshop (2002)**

Workshop



To help create network and build on existing efforts, brought together practitioners from over 10 countries

Compliance Monitoring Framework

Analyze Legal Framework



Strategic Planning:
Identify Issues, Audiences, Products



Develop Work Plan: Choose Tools



Conduct Monitoring and Analysis



Communication/Outreach

Toolbox

A world map with a light blue background and green landmasses, serving as a background for the slide.

- Field Investigations
- Paper Audits
- Trade and Production/Consumption Analysis
- Remote Sensing
- Communications

A world map with a light blue background and a yellowish-tan landmass color. The country of Brazil is highlighted in a vibrant green color. The text is overlaid on the map.

Logging in the Brazilian Amazon: illegality, advances in detection and enforcement

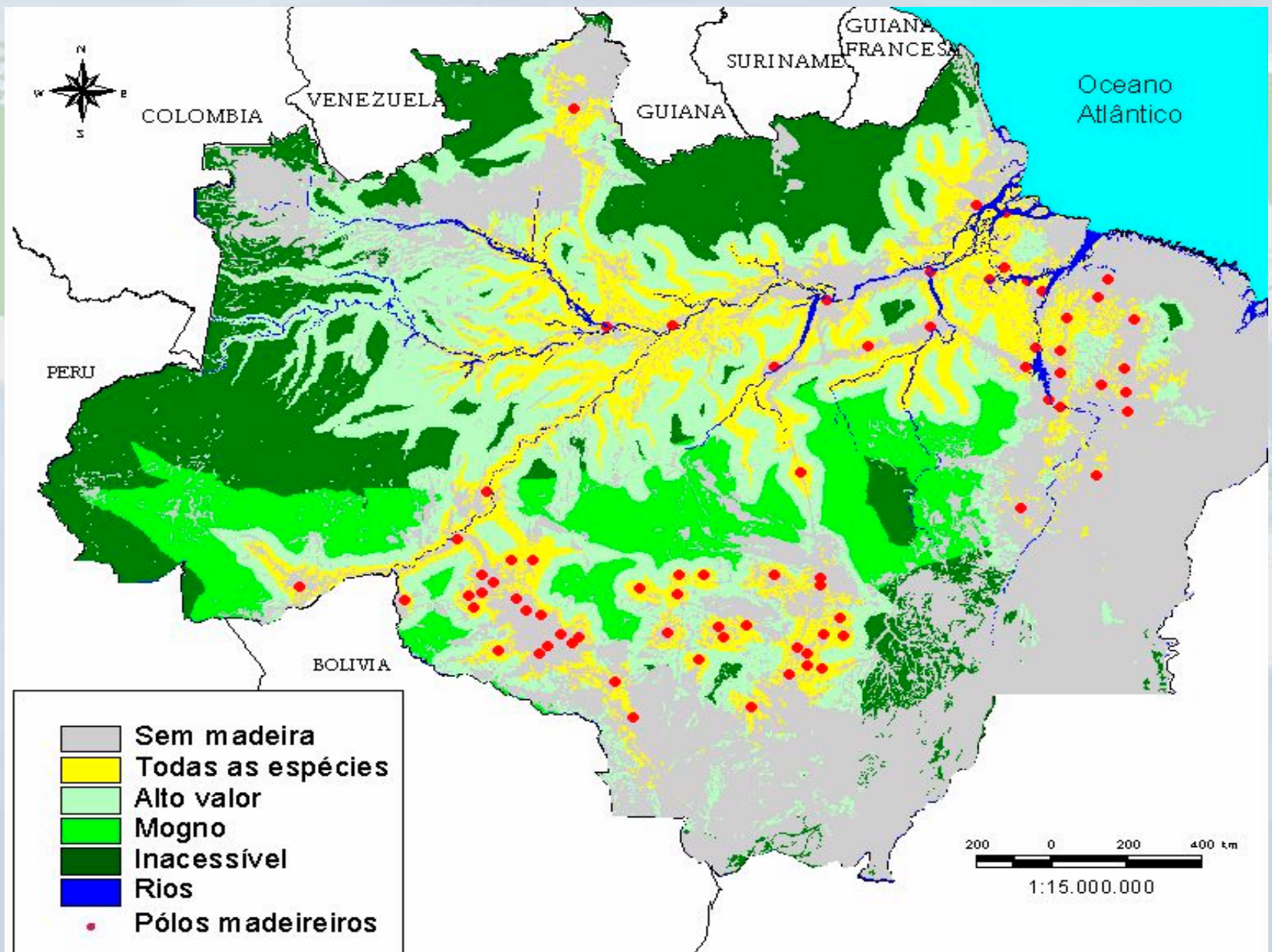
Paulo Barreto
IMAZON

The timber industry in Amazon

A world map with a light blue background. The Amazon basin in South America is highlighted in a vibrant green color, contrasting with the tan and light green of the rest of the world's landmasses. The map shows the outlines of continents and major bodies of water.

- ~ 2,500 companies
- ~ 30 millions m³ logs/year
- ~ 9,000 – 15,000 Km²/year
- ~ 600,000 jobs

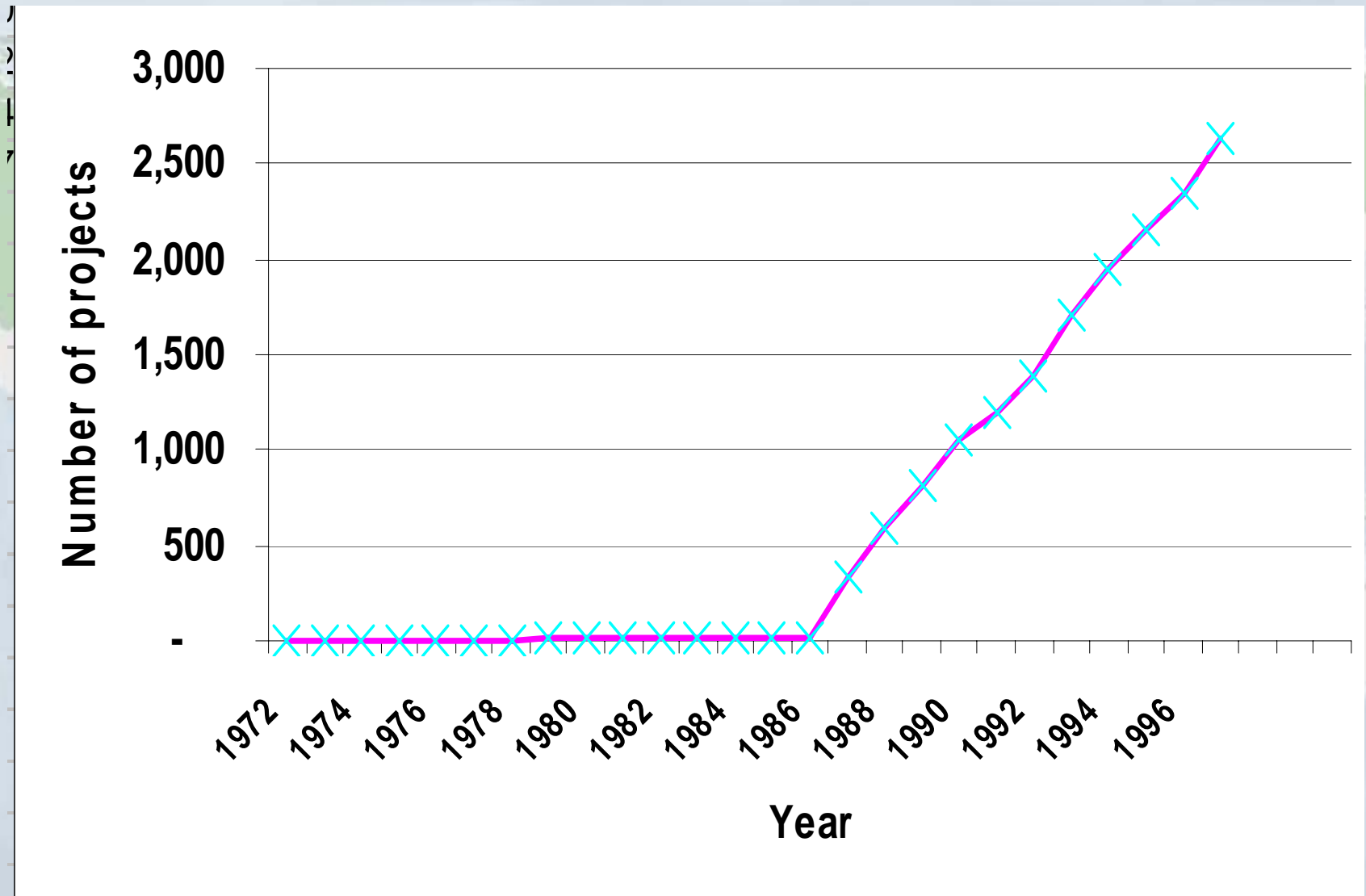
Where logging is occurring?



A world map with a light blue background. Landmasses are colored in two main categories: green and yellow. Green regions include North America, South America, Europe, Russia, and parts of Africa and Asia. Yellow regions include Australia, India, and parts of Africa and Asia. The text "Is there any problem?" is overlaid in the center in a dark blue, sans-serif font.

Is there any problem?

Forest management plans



Based on Ibama, 1998, 2000.

Destructive logging practices

TERRA FIRME

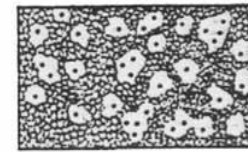
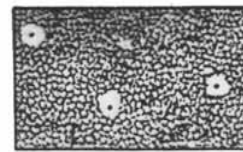
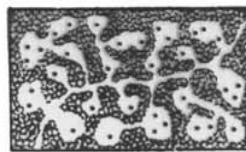
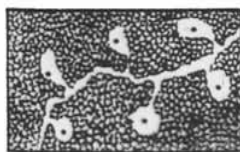
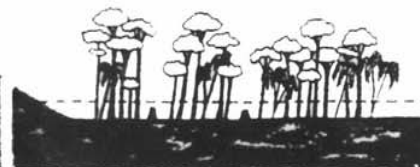
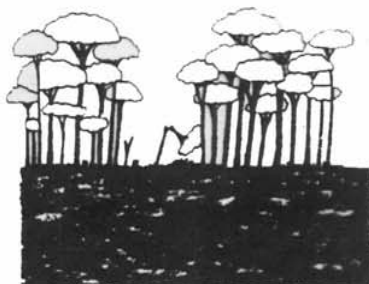
VÁRZEA

EXTRAÇÃO DE POUCAS ESPÉCIES

EXTRAÇÃO DE MUITAS ESPÉCIES

EXTRAÇÃO DE POUCAS ESPÉCIES

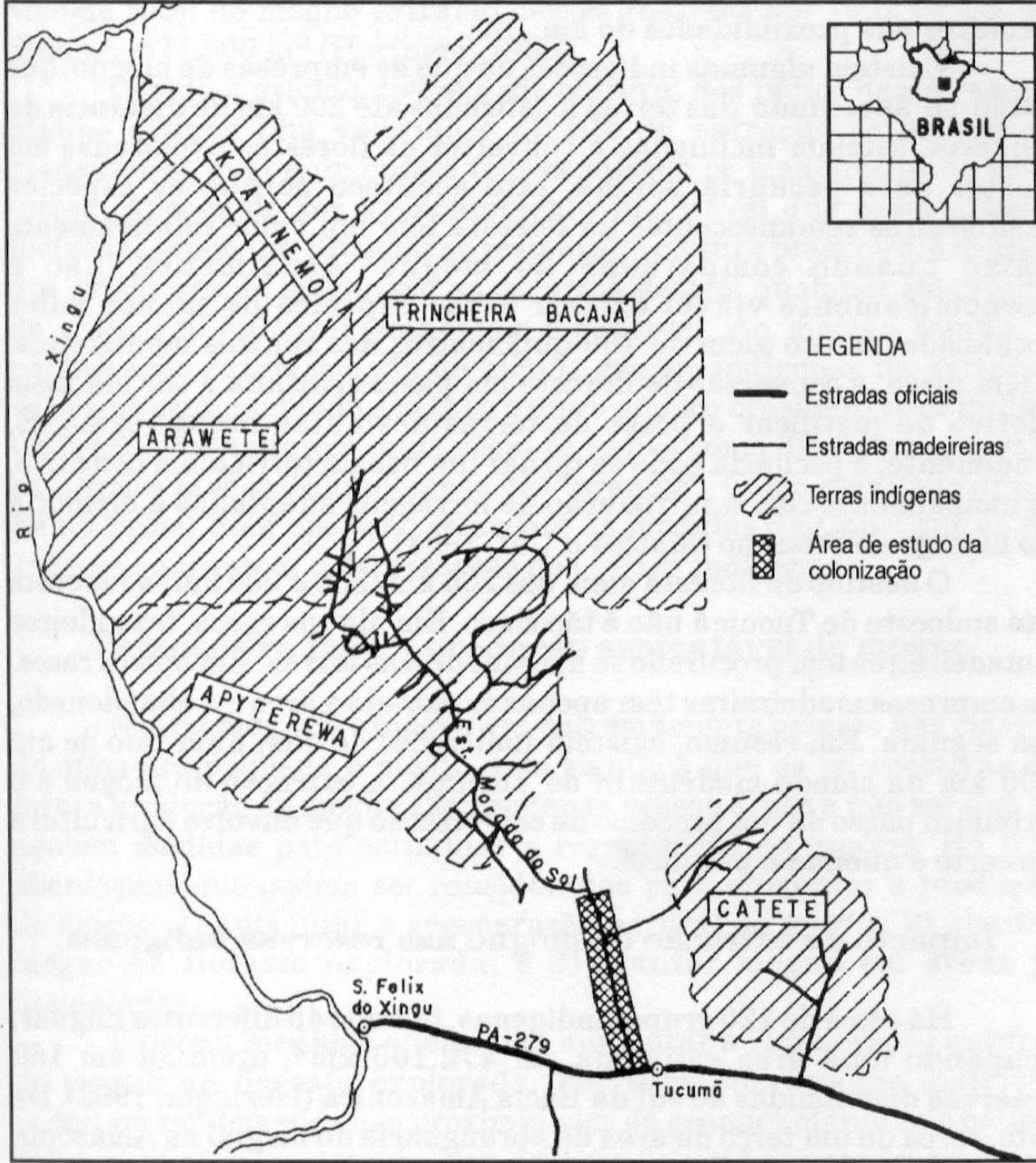
EXTRAÇÃO DE MUITAS ESPÉCIES



CARACTERÍSTICAS DA EXTRAÇÃO

Nº espécies extraídas	5 - 15	> 100	1 - 3	40 - 60
Volume extraído (m ³ /ha)	10 - 20	30 - 60	2 - 5	50 - 100
Abertura do dossel (%)	5 - 10	40 - 60	5 - 10	40 - 60

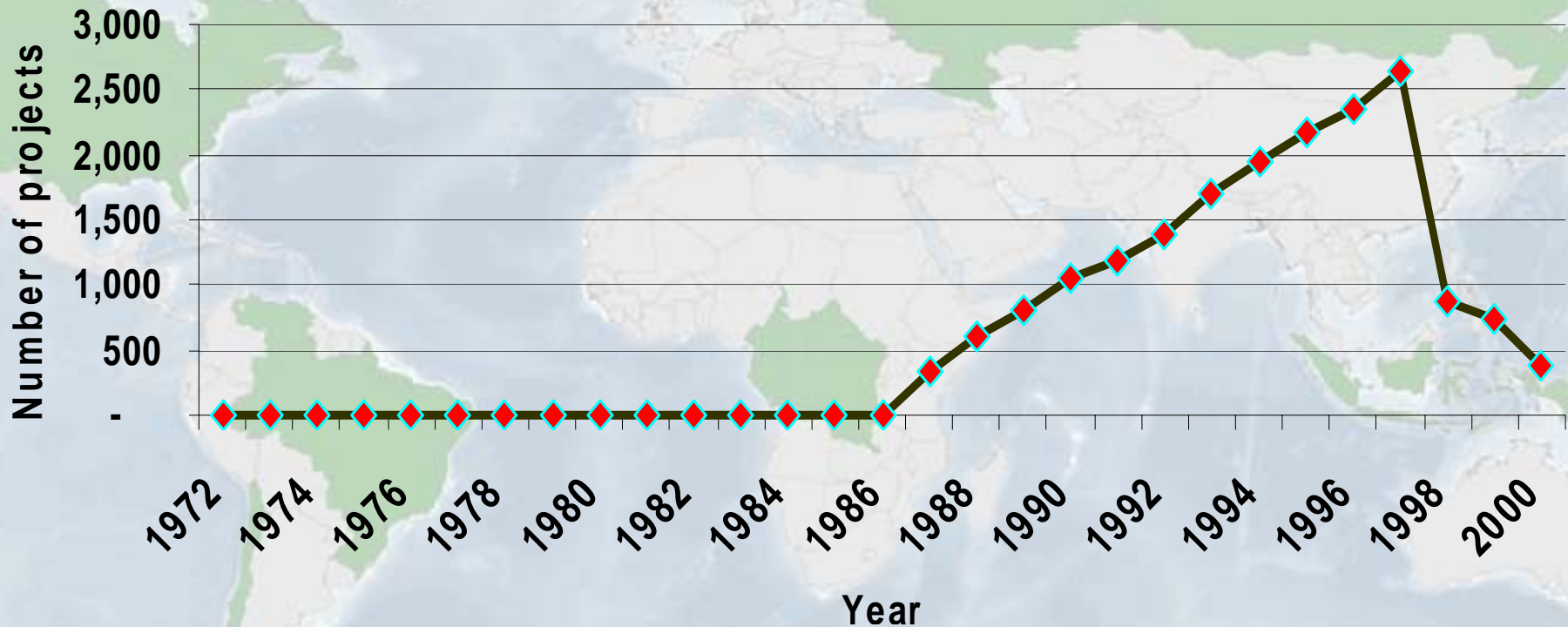
Invasion of indigenous and public lands



Advances in enforcement



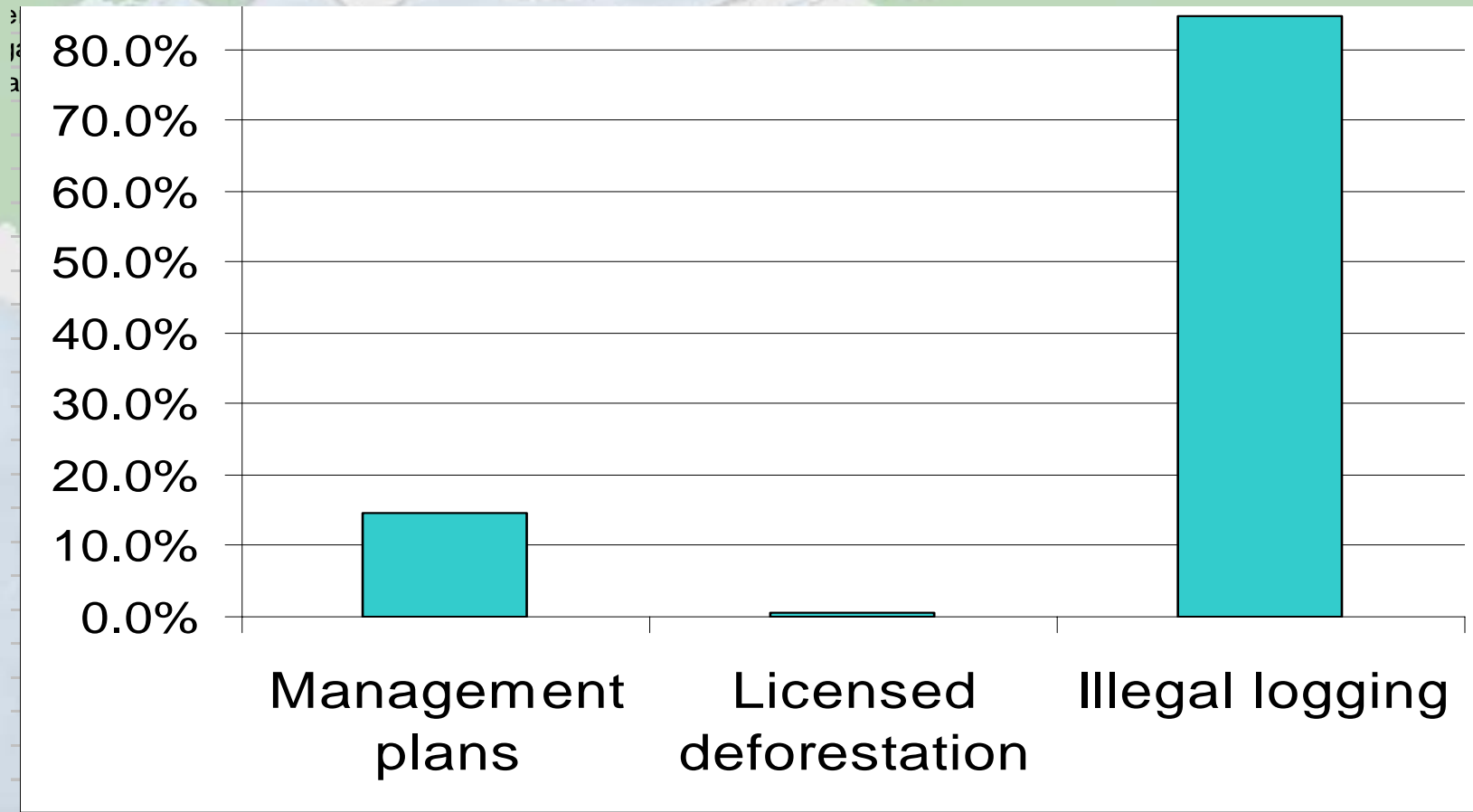
Review of forest management plans



Based on Ibama, 1998, 2000.

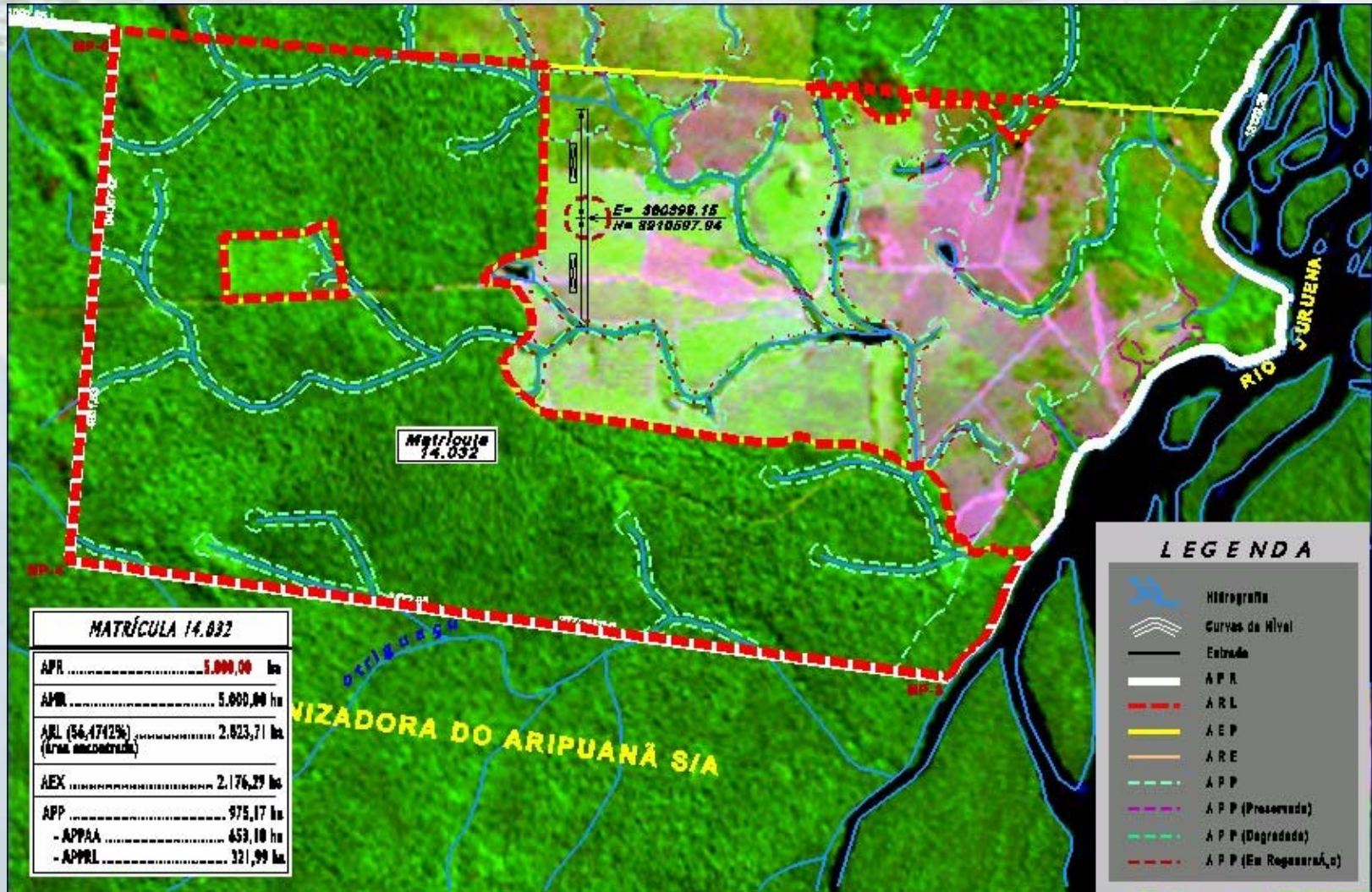
How much illegal logging?

Year 2000 - %



New licensing techniques

Remote sensing x property lines

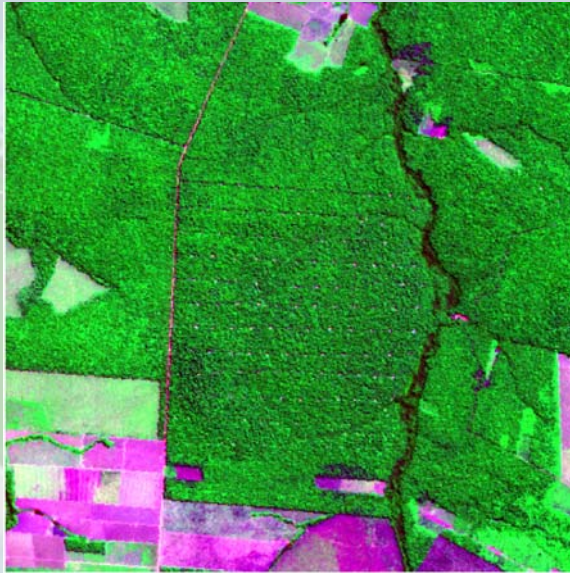


Proposed next steps

A world map with a light blue background. The landmasses are colored in a light tan or beige. Several landmasses, including North America, South America, Europe, Africa, and parts of Asia, are highlighted in a light green color. The map is centered on the Atlantic Ocean.

- Detect logging using remote sensing
- Tracking log transportation

Landsat ETM-7 (R=5 G=4 B=3)



Classified Image

3



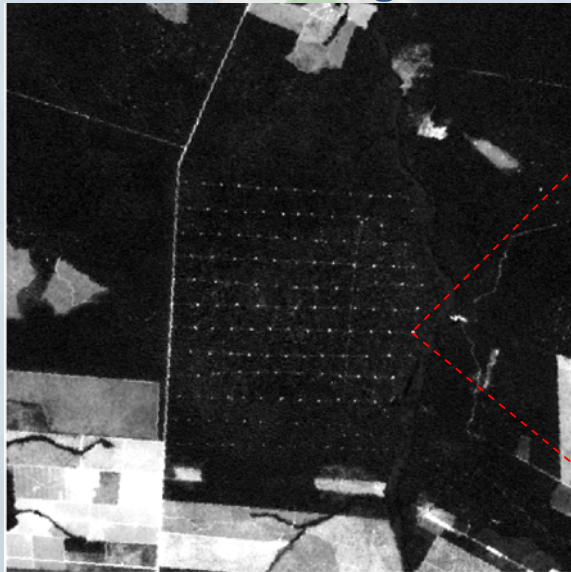
Automatic
logging
detection

- Forest
- Non-forest
- Water
- Log landings
- Recent logging

5 0 5 Km



Soil Fraction Image



0% 100%

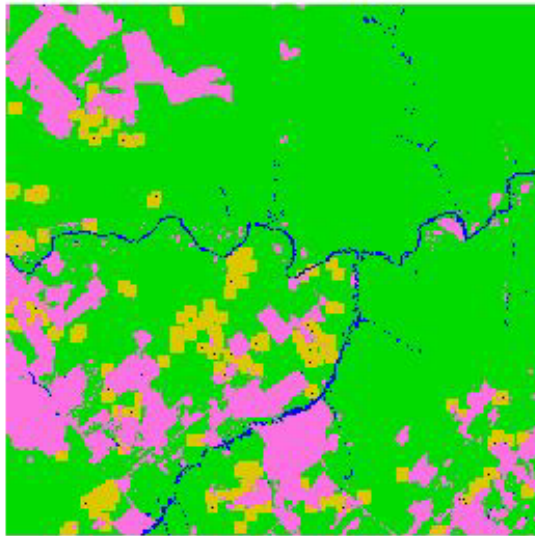
Log landing



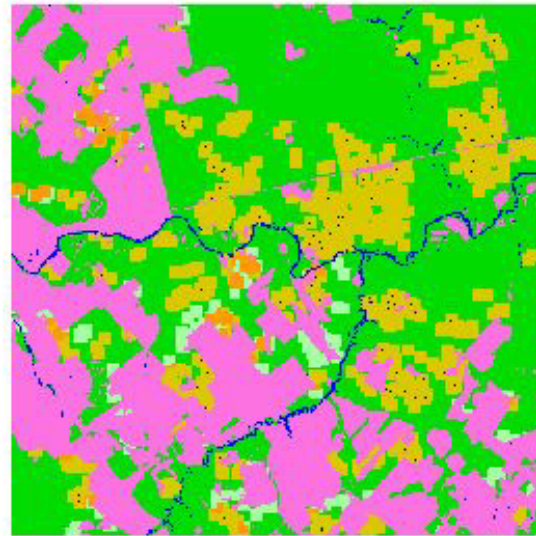
Monitor deforestation + logging

1992

Marcelândia



1996



1999



Log landings
Recent logging

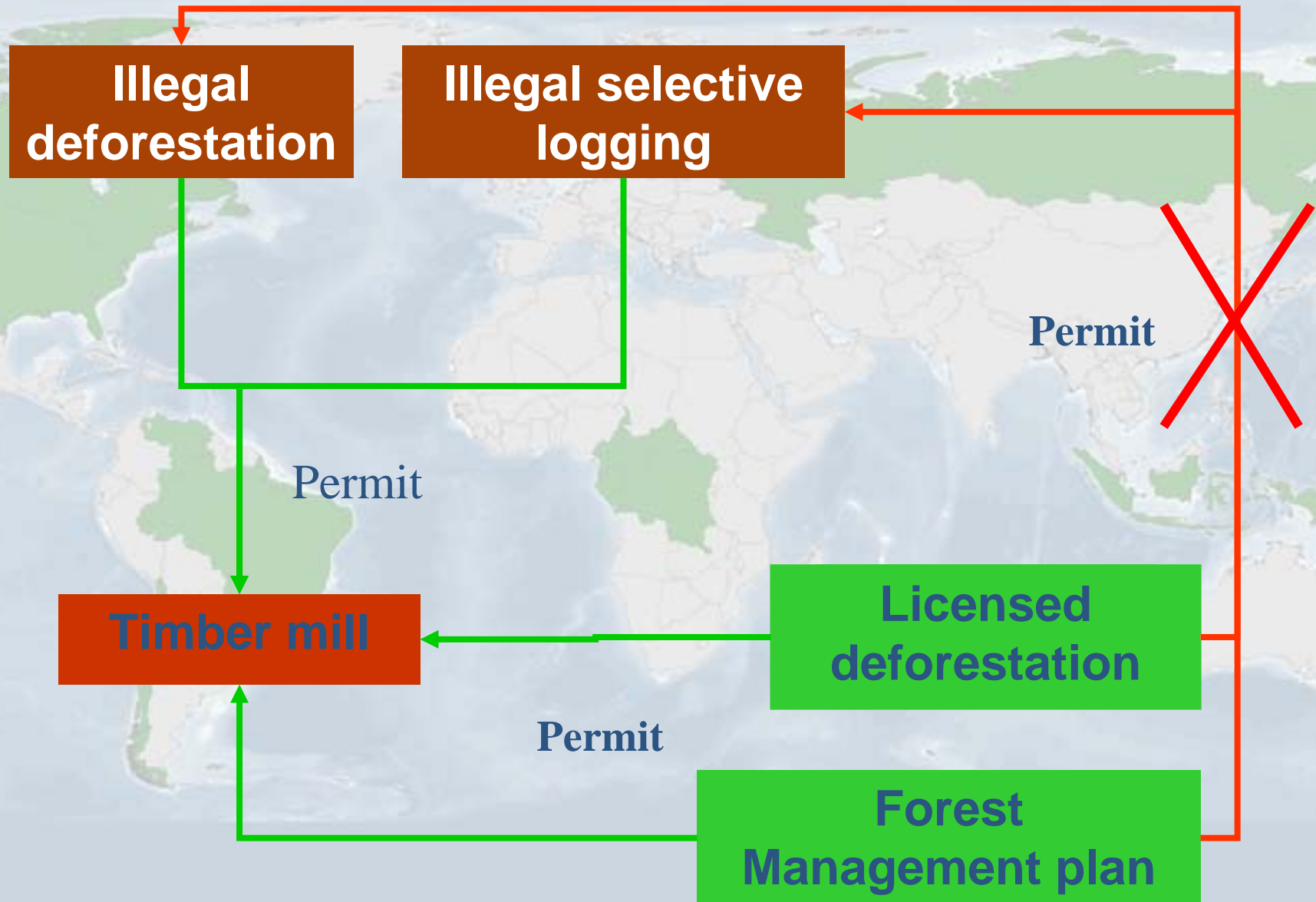
Forest
Non-forest

Water
Old logging

Repeated logging (2x)
Repeated logging (3x)

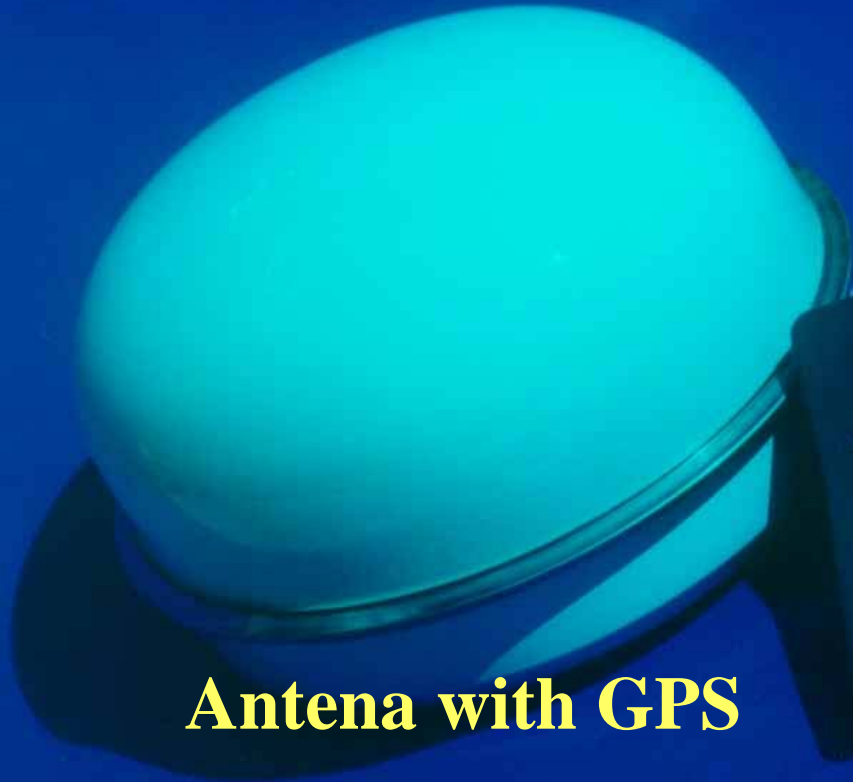
5 0 5Km

Improving the control of log transportation



Mobile Communication Terminal

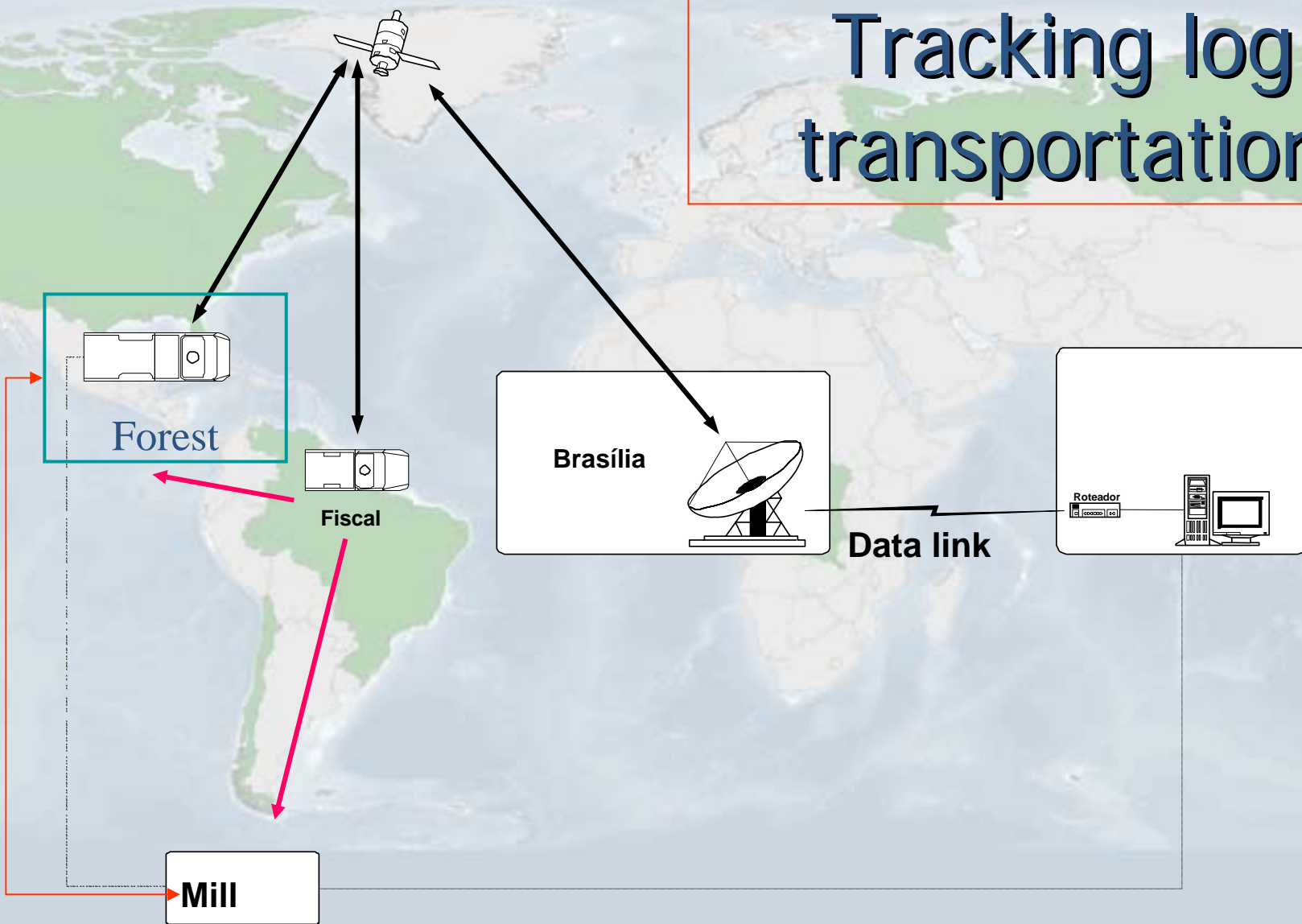
**Communication
Terminal**



Antena with GPS



Tracking log transportation



Conclusions

- Control has been weak
- Public pressure → improvements
- More opportunities to improve
 - Efficient detection
 - New players

Forest Watch of British Columbia

Aran O'Carroll, LLB, Executive Director

Best practices for the

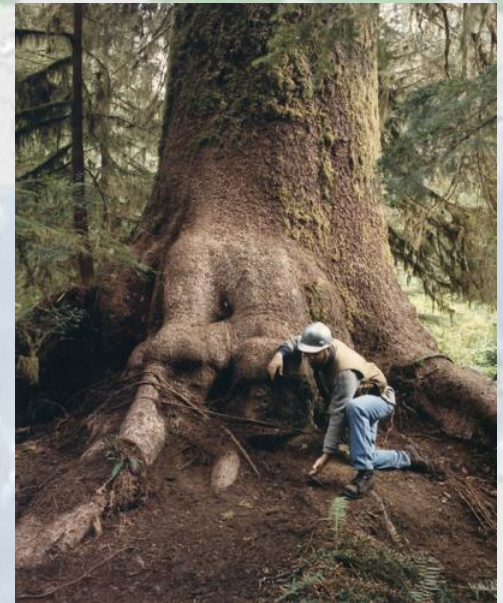
Field Investigation

of illegal and destructive
commercial logging



Forests and Forestry in British Columbia

- Most biologically and culturally diverse province in Canada - 94% owned by the public or First Nations;
- 50 million hectares of forest in concessions, producing 70 million cubic metres annually;
- Exports valued at \$13.2 billion annually.



Illegal Logging in British Columbia



- “Significant non-compliance” found in 46% of forest practices audits - 90% of forestry bridges are non-compliant;
- Timber theft may exceed \$1 billion annually, false reporting exceeds \$100 million annually.

Government Enforcement

- According to B.C. Ministry of Forest staff, compliance monitoring is inadequate;
- Only one reported prosecution in seven years;
- All fines issued to forest companies equal the overdue book fines issued by the Vancouver Public Library.

Forest Watch of British Columbia

Initiated in 1995, Forest Watch... *promotes the health of British Columbia's forests and forest communities by inspiring and empowering citizen stewardship.*

Program activities:

- Compliance Monitoring
- Citizen Training

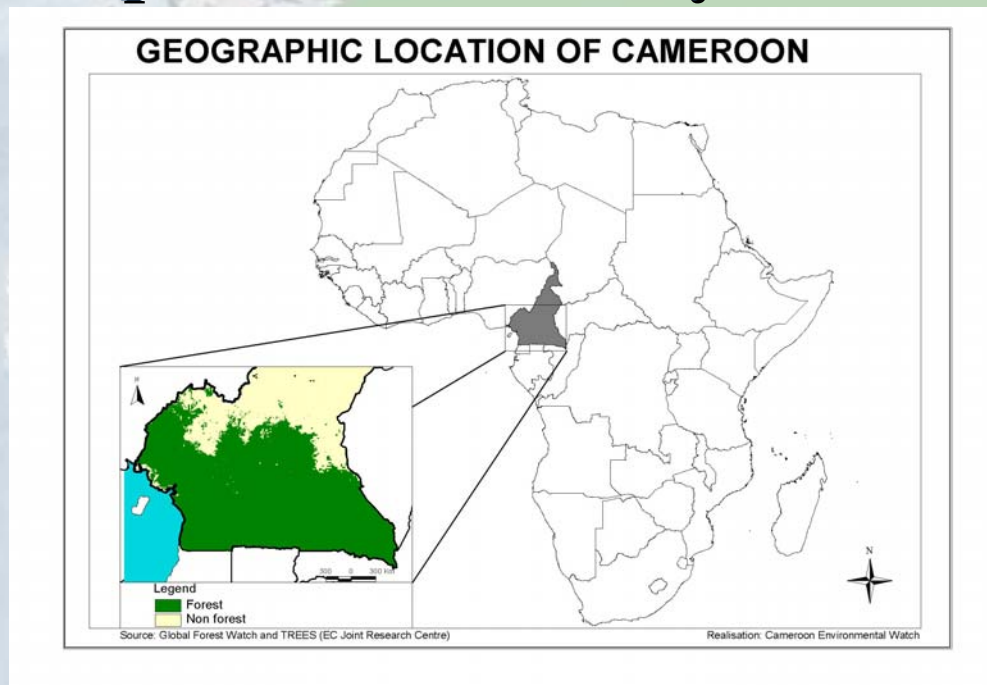


Best Practices for Field Investigation

- Emphasize planning and documentation;
- Strategic objectives for compliance monitoring;
- A network of trained citizen monitors;



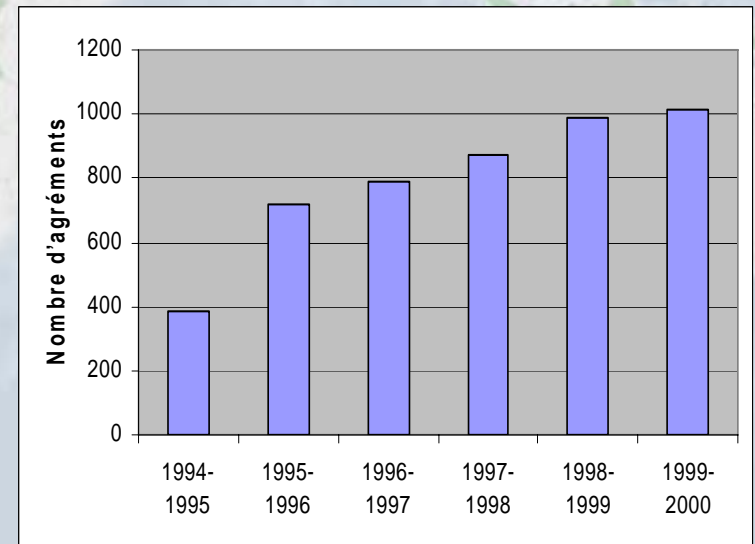
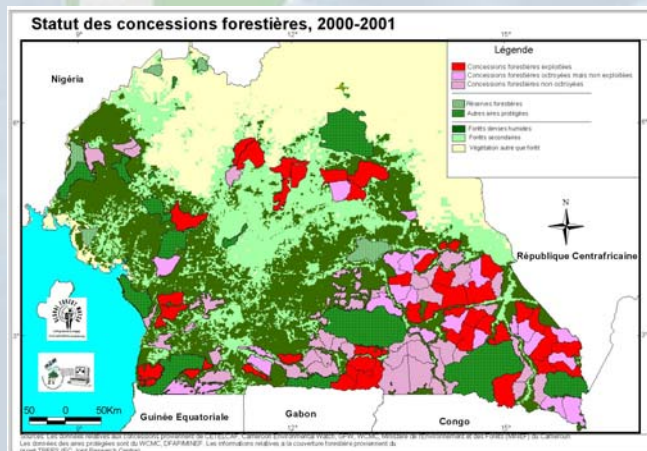
CAMEROON ENVIRONMENTAL WATCH AND THE MONITORING OF ILLEGAL EXPLOITATION OF FOREST IN CAMEROON : Auditing and performance analysis



**by Dr. Roger Ngoufo
Cameroon Environmental Watch (CEW) and
Global Forest Watch Cameroon (GFWC)**

MONITORING CONCESSIONS ALLOCATION:

- Invitation to tender process
- Know where active concessions are found
- Obtain the data
- Include data in GIS base



EVALUATION OF ILLEGALITY

A world map with a light blue background and green landmasses, serving as a background for the text.

Principal indicator: Infringement, a behaviour constituted in action or in omission

The following aspects are investigated:

- **Extent of problem**
- **Nature**
- **Location and distribution**
- **Types of illegal logging**
- **Follow-up**
- **Underlying causes.**

Sources of Information:

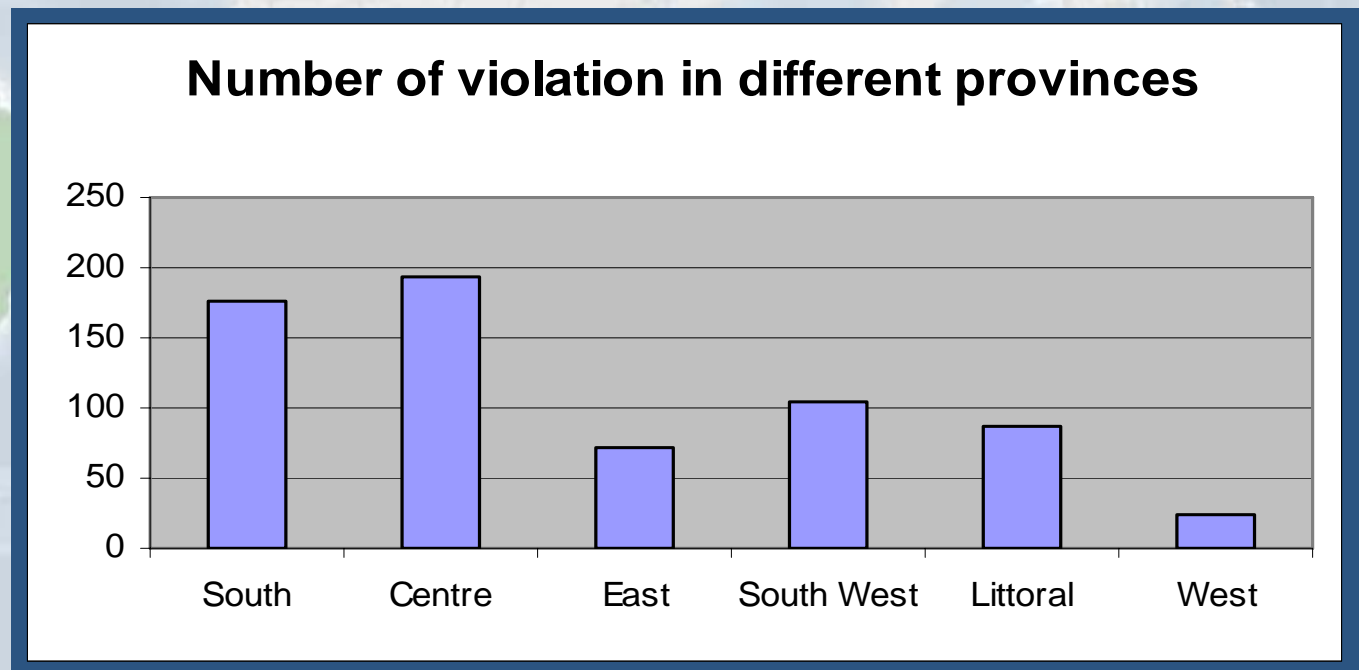
- Annual reports containing violation information
- Official written charges
- Administrative correspondences
- Communiqués and published decisions from **MINEF**
- Newspapers
- Field inquiry reports

Extent of Infringements

From 1990-2001, 696 cases in total:

- 166 cases incomplete
- 530 cases analysed statistically

*Geographic
distribution*

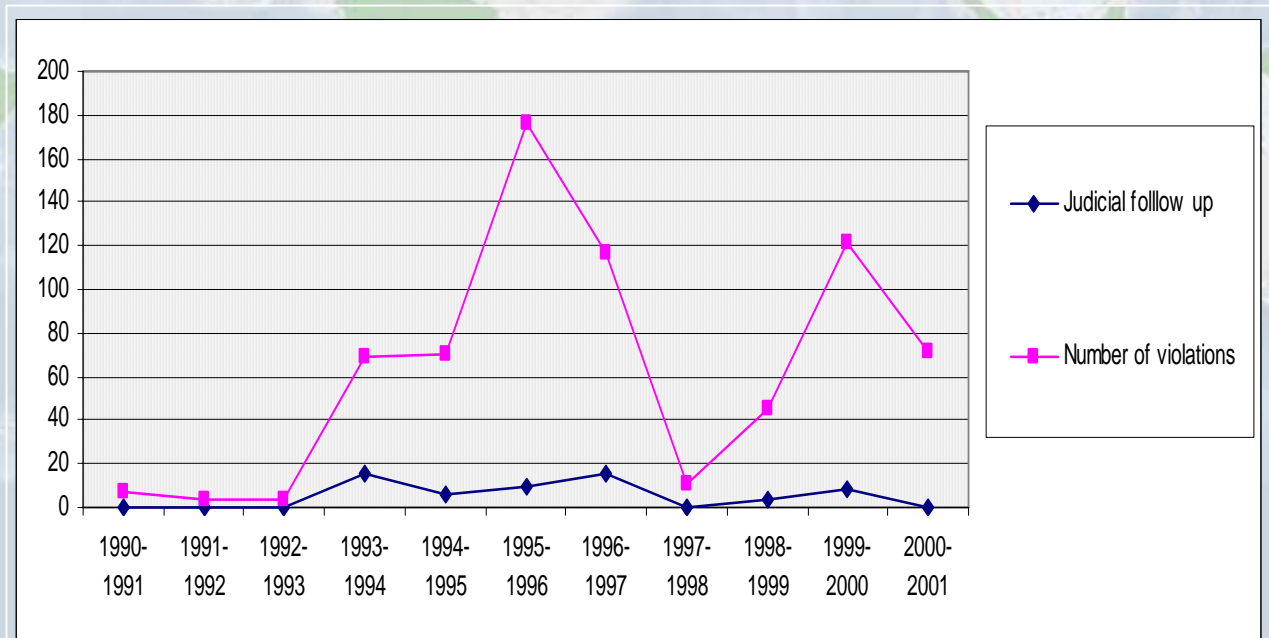


Categories of Infringements

- Inside concessions : 12.26 %
- Outside concessions : 19.62 %
- On control and documentation : 8.49 %
- Tax-related : 6.23 %
- Transportation : 4.72 %
- Wildlife poaching : 20.90 %

MONITORING ENFORCEMENT FOLLOW UP:

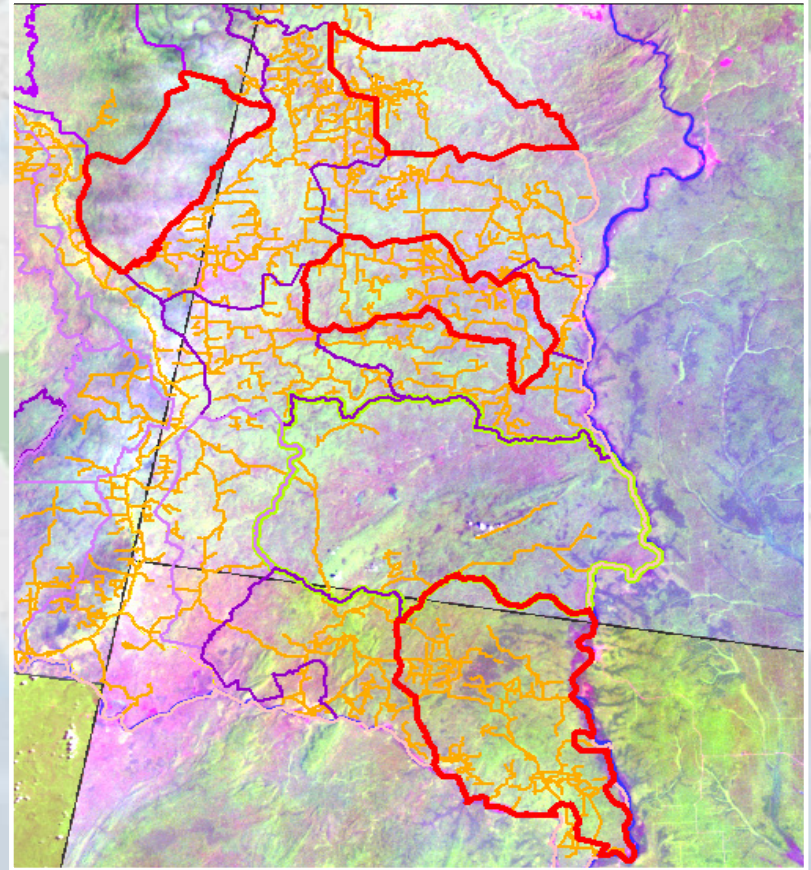
- **Unknown: 37.50 %**
- **Confiscations, auctions, etc.: 33.62 %**
- **Administrative sanctions: 15.23 %**
- **Judicial follow up: 8.19 %**
- **Transactions (out of court settlement): 5.46 %**



Remote Sensing Applications for Compliance Monitoring

Satellite imagery used to determine:

- Whether logging takes place where/when legally permitted



A world map with a light blue background and green landmasses. The map is centered on the Atlantic Ocean, showing the Americas on the left and Europe and Africa on the right. The text is overlaid on the map.

Combating Illegal Logging in Russia: Case study of Primorsky Region

Alexey Morozov
Greenpeace Russia

Primorsky region: 2000

Objectives:

- **Push regional and federal authorities to take some steps and not only ‘be aware’ of illegal logging**
- **G8-related political work**

Primorsky region: 2000

Initial information/knowledge of NGOs:

- amount of logging and wood export
- estimates of how much is illegal
- means of illegal export
- illegal logging ‘technology’
- problem areas and wood transportation routes
- general public and government awareness of the problem especially regarding high-value tree species

Primorsky region: 2000



Official Responses

GREENPEACE
RUSSIA

7 of July 2000

Head of Nature Resource
Committee of the Primorsky
regional Administration
Mr. Stomatyuk:

“There are no problems
with illegal logging in the
region. Less than 1% of
total amount is logged
illegally...”

10 of July 2000

Primorsky nature protecting
prosecutor's office has
finished special investigation
on legality of logging
operations in the region.
As a result prosecutor's
office ordered Primorsky
regional forestry department
to suspend about 80% of
forest lease agreements and
stop all logging permissions
for these companies.

The Russian Far East

Results:

- direct request for information from the Ministry of Interior and the Federal Forest Service and the FSB (KGB)
- 4 governors of other regions stated that they will start investigations of illegal logging in their regions
- Primorsky region Prosecutor's office decision
- Primorsky regional authorities speed up the creation of special body for licensing export operations
- changes in the Federal Crime Code

Scale of illegal logging and the position of Russian authorities

GREENPEACE
RUSSIA

...A barbarian destruction of valuable tree species growing stock is what actually taking place in the region. While annual logging limit for the region remains at 260 thousand cubic meters, 930 thousand cubic meters of valuable species timber have already been licensed for export....

(From the letter signed by the Governor of the Primorsky Krai to the head of Russian Government. Letter was dated 7 June 1999 #11-43/1704)

...On October 6 there was an ordinary session of the Inter-agency Committee for Concerted Action to Monitor Exports of Valuable Timber...

None of the submitted applications for export licenses for ash-tree and oak was approved. ..

In the six months of 2000 the Committee considered 55 applications for exports of 108,000 cubic meters of ash-tree and 104,000 cubic meters of oak, whereas authorization was given for the export of only 56,000 cubic meters of ash and 67,000 cubic meters of oak, **which implies that almost half the timber was logged illegally.**

(Extract of the article based on the official press release of the Inter-agency Committee. Published in the newspaper Zolotoy Rog, 10.10.2000, #78)

Illegal Logging in Indonesia

A world map with a light blue background and green landmasses. The map is centered on the Pacific Ocean, showing the Americas on the left and Asia and Australia on the right. The text is overlaid on the map.

Fachrurrazi Ch. Malley

Telapak

Efforts to stop illegal logging in Indonesia

Some challenges:

- Rate of destruction: 1.6 - 1.8 million ha/year
- Backed up by armed gangs
- Livelihood for local/ indigenous peoples
- Official collusion (military/police/forest and local officials)



Confusion over what's legal/illegal

Illegal:

- without permits or with false documents
- cutting in non-permitted areas
- cutting forbidden species, undersized trees (<50cm diameter), near water sources, on slopes etc.

“Permitted” logging can also be illegal:

- logging on traditional land



Tackling root causes

- Supply gap: production capacity (73 million m³) in excess of legal supply (22 million m³)
- Investment decisions based on poor supply data
- Lack of local/ indigenous rights and tenure
- Corruption and official collusion, and lack of enforcement.



Planning & conducting an investigation



- Determine purpose and target
- Analyze regulatory framework
- Personal preparation (physical, mental, technical)
- Information gathering - undercover techniques & secrecy
- Targeting information (facts) at policy reform, strengthening citizen networks, public awareness

Responses to date

- Political commitment and action in central government to strengthen law enforcement
- Logging company operations suspended
- Local community protests over destructive logging
- NGOs using evidence to lobby for legal and policy reform

Recommended actions

- Close down illegal sawmills
- Audit of legal operations (review capacity)
- Moratorium on all logging activities and new permits until policy reform
- Investigate and punish corrupt officials/military/police

- Legal recognition of local/indigenous rights
- International commitment not to facilitate trade in illegal timber (import, re-export), and to strengthen law enforcement
- Increasing consumer awareness
- Financial policy to promote socially and environmentally responsible investment.



NGOs' best practices for combating illegal and destructive logging

- **Raising public awareness**
- **Documenting the facts efficiently, rigorously and cost-effectively**
- **Pressuring authorities to take action**
- **Taking legal actions**
- **Promoting transparency**
- **Promoting responsible wood purchasing**
- **Monitoring forest management**
- **Working with logging companies to find solutions**

Partnerships-Collaboration:

- working with companies on issues and better practices (codes of conduct):
 - IKEA supporting WWF-government forestry brigades
 - ABN Amro supporting development of compliance database to help track investments
- cooperation with government: training, building capacity, shared projects and data:
 - Greenpeace-IBAMA field investigations;
 - IMAZON – data to public defenders office;
 - Global Witness – Cambodia and Cameroon independent monitoring