INTERPOL

Project LEAF

Environmental Security Programme

Workshop on Application of high throughput genotyping technologies for forest tree species identification and timber tracking, Madrid, 13-15 September 2017

INTERPOL

ENVIRONMENTAL CRIME PROGRAMME

PROJECT LEAF

LAW ENFORCEMENT ASSISTANCE FOR FORESTS

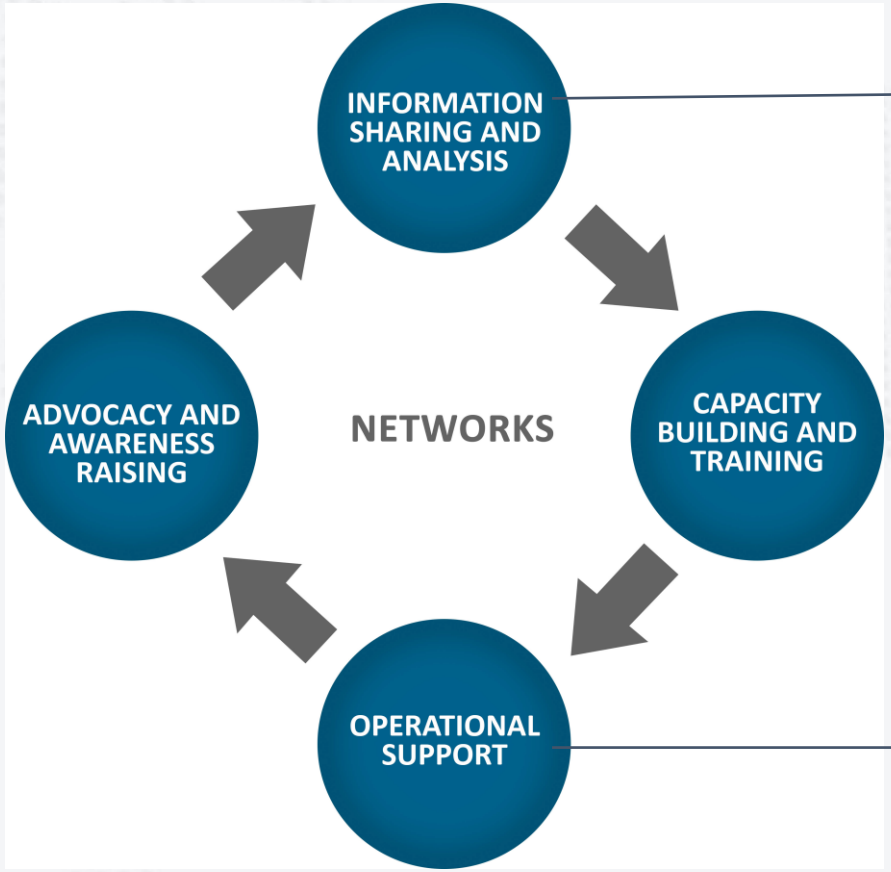
Combating illegal logging and organized forest crime

www.interpol.int

Project LEAF Aim

- Identify and dismantle criminal networks involved in illegal logging
- Focus on high-level criminals and heads of criminal networks

Project LEAF Strategy and Activities

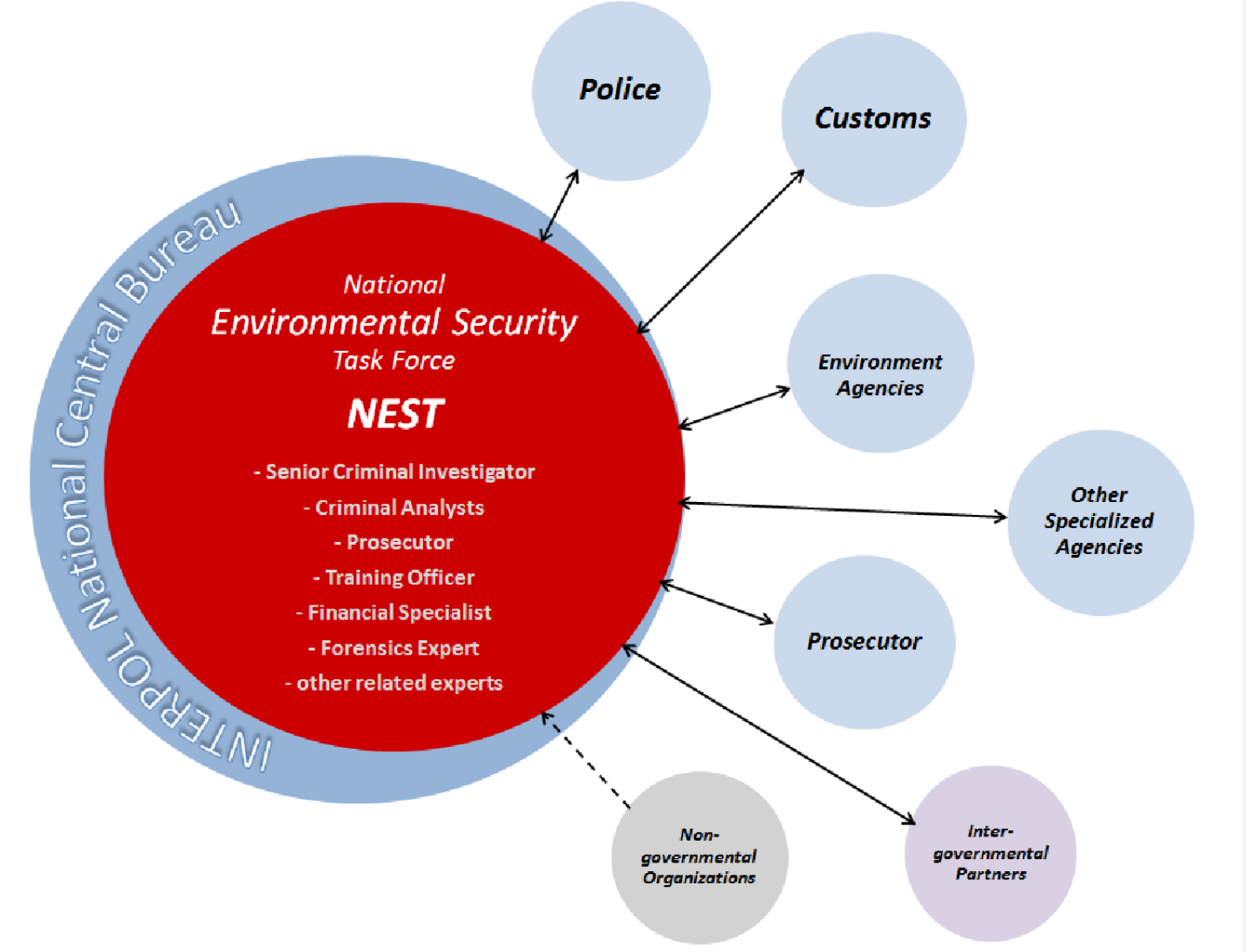


- Regional Investigative and Analytical Case Meetings

- Investigative Support Teams
- INTERPOL Notices

NEST

National Environmental Security Task Force



Project LEAF Achievements in 5 years

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OPERATION AMAZONAS II

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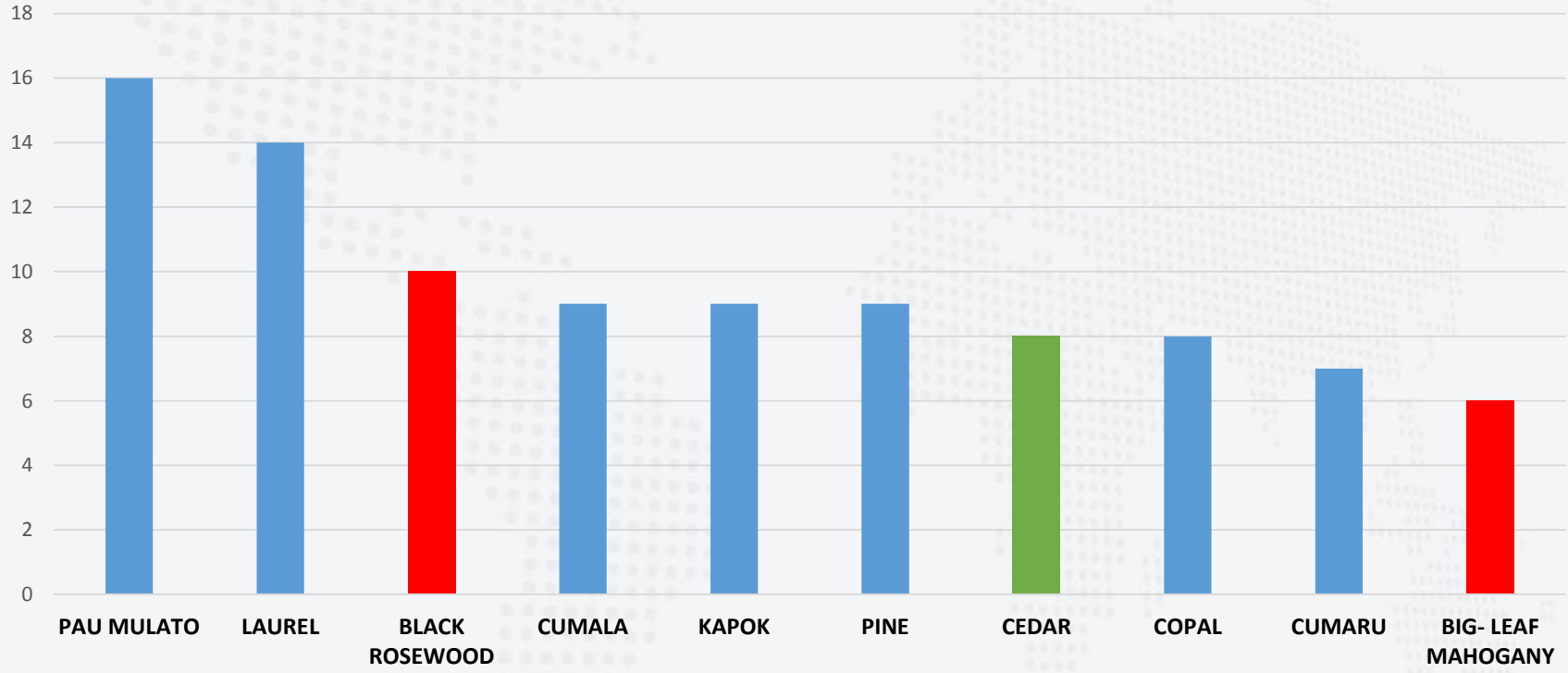
10 timber species most often trafficked

In Red: species protected by CITES Appendix II

In Orange: species protected by CITES Appendix III



Timber Trade routes

LEGEND:

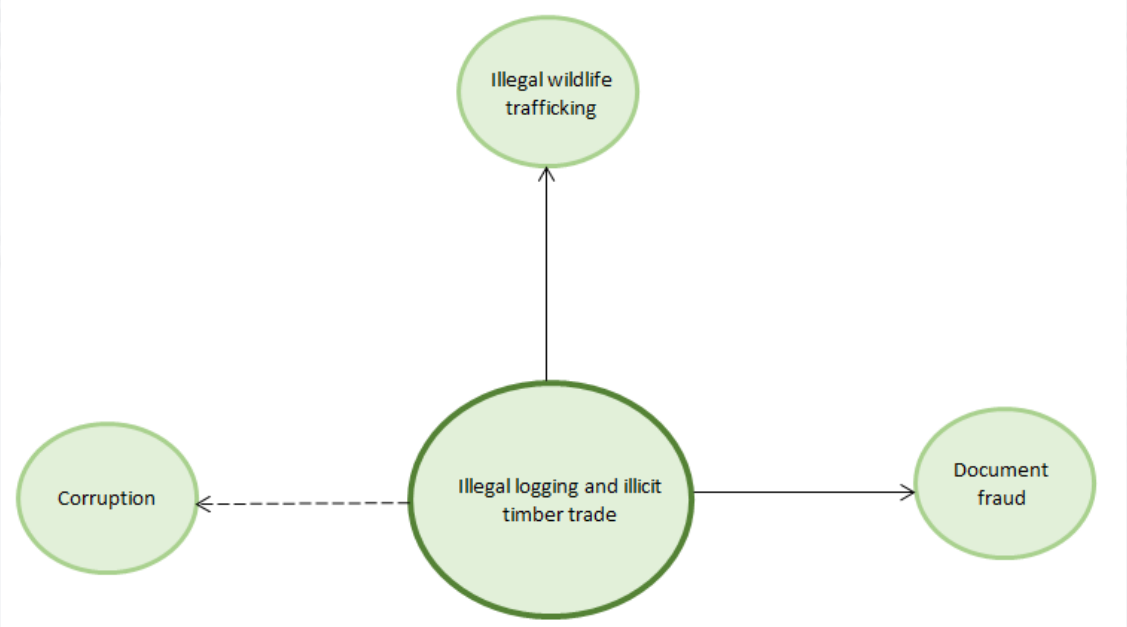
Green arrows
export destination Europe

Red arrows
export destination Asia

Yellow arrows
export destination USA

Blue arrows
export destination Latin America

Cross-over crimes



Timber tracking: issues and solutions

Law enforcement most frequently use non-inherent features of wood to track timber: paper based certificates, painted markings, plastic tags or barcodes.

Issues

- Susceptible to forgery (mislabelling)
- Misinterpretations
- Not durable (can be detached from logs)

⇨ **not reliable**

Solution: forensic timber identification?

DNA timber identification could be used in official investigations to:

- Identify species, their origin, their age
- Trafficking routes (country of origin, transit and destination country)
- Modus operandi
- Audit timber tracking systems using barcodes and tags.

⇨ **DNA does not lie!**

Case study: DNA analysis for law enforcement

Timber is seized from a milling site in China and it is unclear whether the timber being processed is of the species declared on the permit. A small amount of the timber is taken to a forensics lab where specialists extract DNA and compare it to DNA already identified in a **timber database**. It is concluded that the timber is a protected species, and that the species has been falsely declared on the permit. **Further the DNA analysis suggests the timber probably came from** a protected area in Kenya and was therefore also cut illegally.

Questions for Scientists on DNA analysis for timber identification

How much time?

- Costly to detain timber
- How quickly can Science identify that a timber specie declared on a certificate is not this timber specie?

How much money?

- Developing countries with little financial resources

How precise?

- Genus or species level? Country, region, forest, concession level?

How reliable?

Unique international database?

- Who hosts? Who has access to? Risk of being accessed by criminals

Law enforcement need to be involved in the debates to better understand available services

Exploring INTERPOL's role to advance DNA timber identification

- Awareness raising with member countries
- Plateform to host trainings or support training activities in member countries to develop and apply timber identification methods to support countries' investigations
- Encourage participation in INTERPOL Forestry Crime Working Group

Thank you!

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