



Food and Agriculture
Organization of the
United Nations

Forest management and climate change in Europe

Bialowieza, Poland

21-23 April 2015

Activities and Approaches of FAO in Forests and Climate Change

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Outline:

1) Global context

2) FAO's role and mandate

3) Key programmes and tools to support countries on CC mitigation and adaptation in forestry

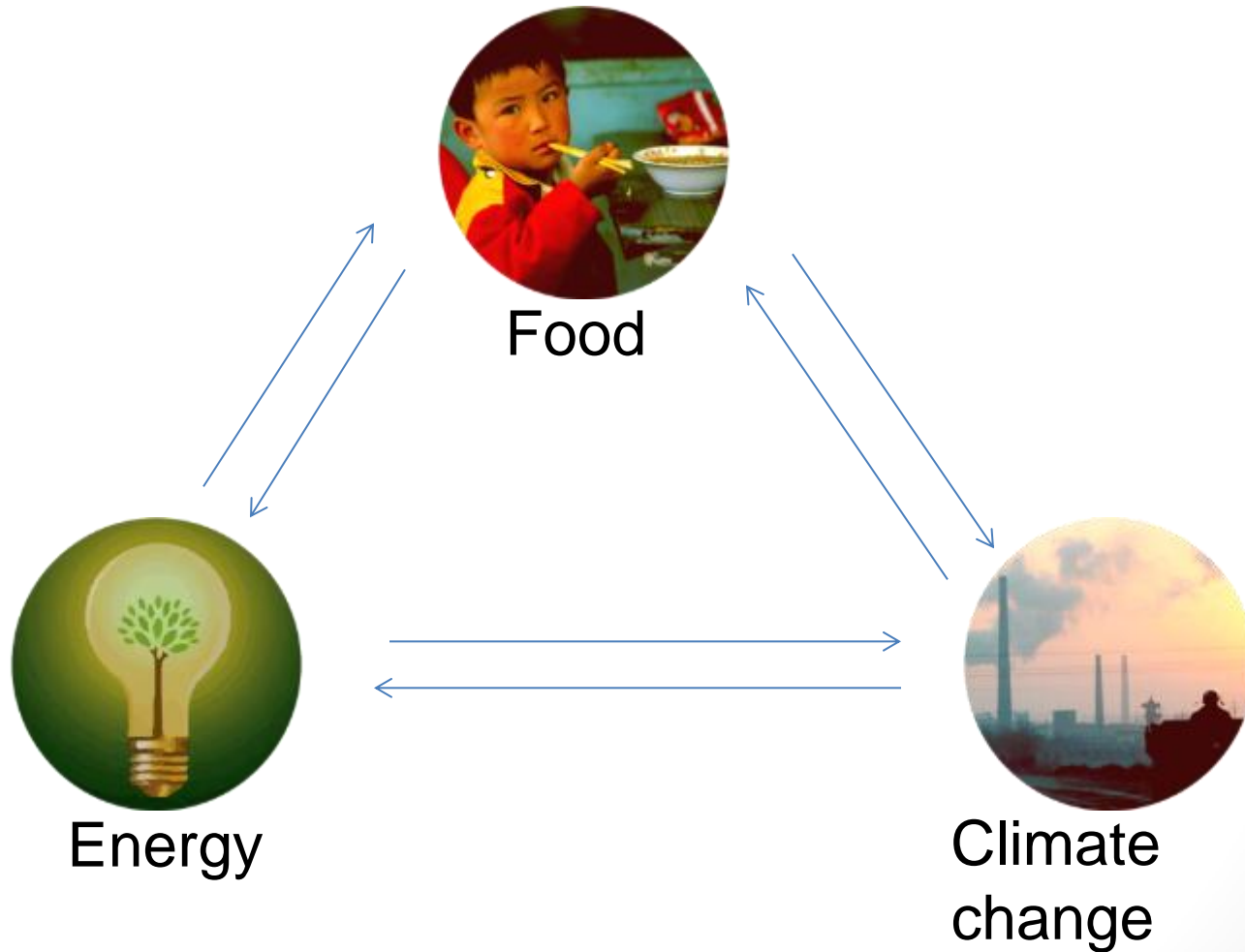


RIO+20
Conferencia
de las
Naciones Unidas
sobre el
Desarrollo Sostenible

*Identified global challenges towards 2050 :
“The future we want”*

2050

Main challenges in Rio+20



Global challenges

- From 7 to 9.1 billion people
 - *followed by slower population growth, older societies, increased urbanization, and migrations*
- Food production to increase 60-70% to meet demands
- Increased pressure on natural resources (water, land, biodiversity)
- Climate change and extreme climate events
- Diverse energy sources
- Increased demand for governance, transparency and participation



Addressing the challenges

- **Integrated approaches for NR**
 - landscape restoration
 - territorial planning
 - disaster risk reduction
- **Land and forest tenure**
- **Responses to Climate change**
- **Sustainable energy production**
- **Food security and poverty reduction**
- **Urbanization planning**



Integrated, multidisciplinary approach required

Landscape restoration

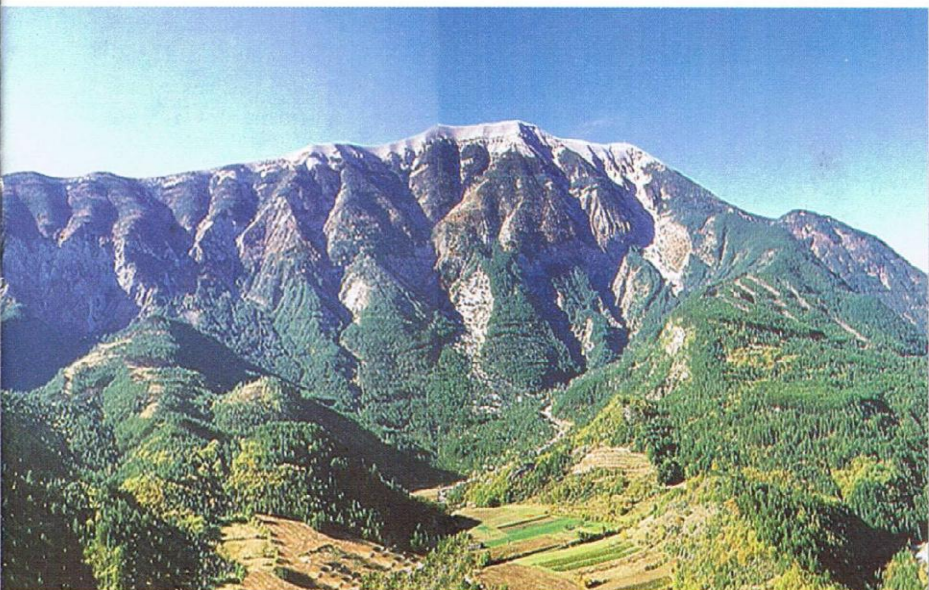
- Civil society's 2nd most urgent action for improving the environment in Earth.
- GPFLR has identified 2.000 M ha for forest restoration.
- Bonn Challenge (September 2011): 150 M ha restored by 2020.
- New York Declaration on Forests (September 2014) : 350 million ha by 2030



Le Mont Ventoux au début du siècle...



... et aujourd'hui





Land and forest tenure

- Regularization of the land and forest tenure
- Access to land for local stakeholders
- Protecting the rights of Indigenous Peoples



Responses to climate change

Arrive to a global climate change agreement in 2015 , considering:

- i. Contribution of forests (REDD + and othes)
- ii. Reduction of energy consumption.
- iii. Promoting the use of renewable and clean energy.
- iv. Substitution for less energy intensive construction materials (e.g. wood and bamboo instead of concrete, iron).



Renewable and
clean energy
sources



Less energy
intensive construction
materials



Urbanization and migration

- Address rural migration to cities
- Improve the feasibility for rural investment (including SMEs). and fair value chains
- Improve public services for foresters and farmers (extension services, credit, support for association, etc.).





Food security



Food security

- Increase production until 2050 in around 70%.
 - Sustainable practices
 - Reducing food losses (currently 30% of the production).
 - Changing nutritional habits.
 - Addressing limited water and productive soil issues.

Global goals of FAO

Support member countries to:

- 1) Eradicate hunger, food insecurity and malnutrition
- 2) Eliminate poverty and promote socio-economic progress
- 3) Sustainably manage natural resources

Sustainability: a forestry heritage

可持续发展 300 年

300 سنة من الاستدامة

*300 лет
Устойчивости*

*300 ans
de durabilité*

*300 Jahre
Nachhaltigkeit*

*300 años
de sostenibilidad*



1713 2013

HANS VON CARLOWITZ
Sylvicultura oeconomica

The seven element of Sustainable Forest Management



biological
diversity

protective
functions



health
and
vitality

socio-economic
functions



legal, policy and
institutional
frameworks



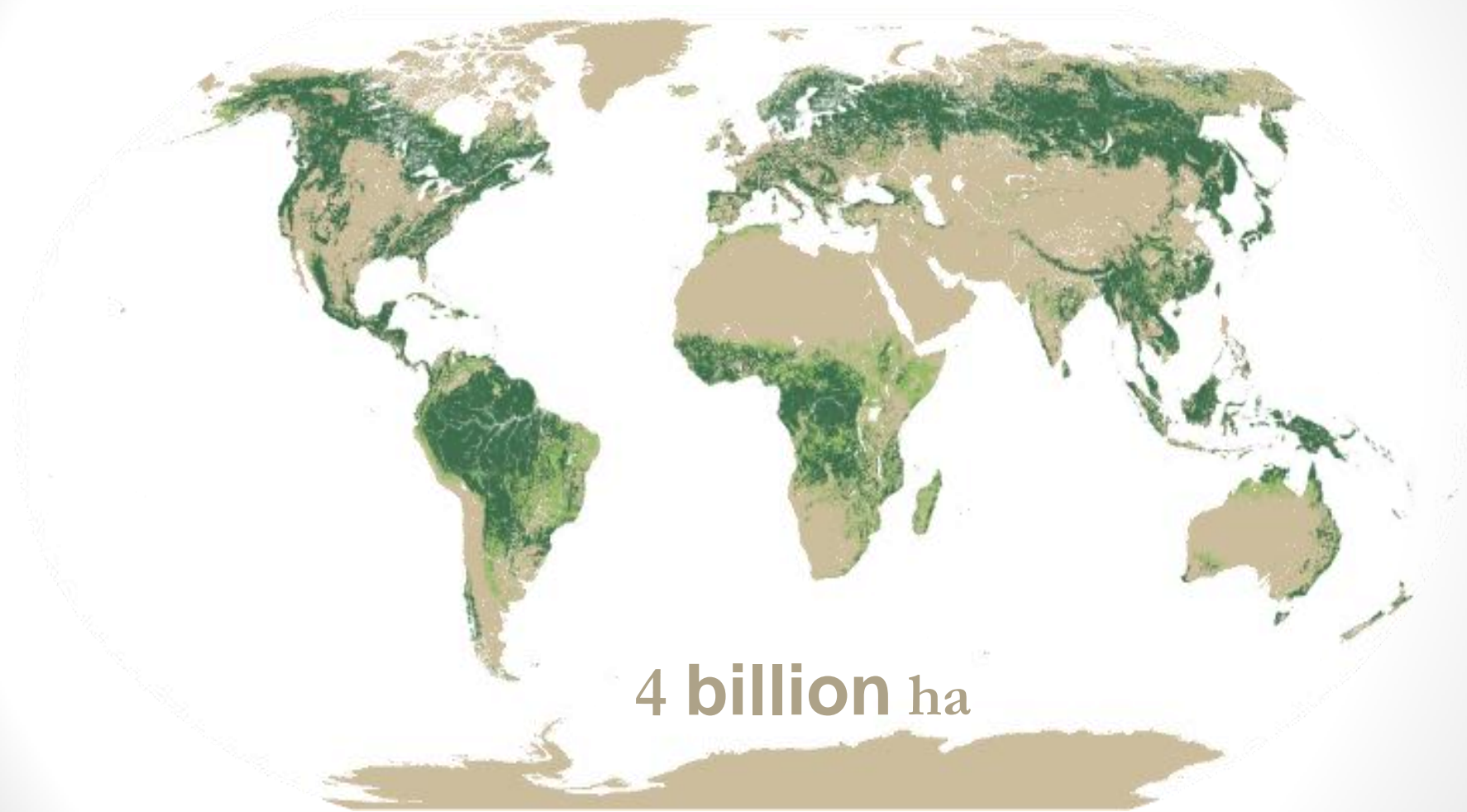
productive
functions



extent of resources

The world's forests

Global forest cover: 31%



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FOREST CHARACTERISTICS

Primary forests

Other natural forests

Planted
forests



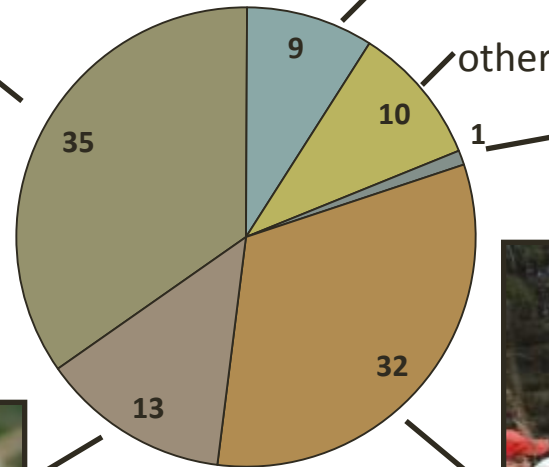
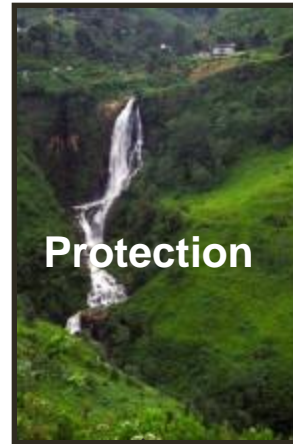
36

57

7



Management, conservation and use (% of forest area)



The European Forests: a growing resource

- About 1 billion ha of forests
- Net annual forest change: about + 1.9 million ha in the last 5 years
- Growing stock of about 110 billion cu m over bark

FAO at national, regional and global action

- **Data and knowledge management:** for monitoring, impact and vulnerability assessment; for analyzing and realizing mitigation and adaptation options
- **Support to global policy processes related to forests:** Rio Conventions, IPCC, UNFF, others
- **Institutions, policies, legal framework and incentives that facilitate adaptation and mitigation**
- **Climate-smart technologies, practices and processes for adaptation and mitigation**
- **Strengthened, effective stakeholder engagement and communication**
- **Cross-sectoral coordination**



FAO Programmes supporting CC M&A

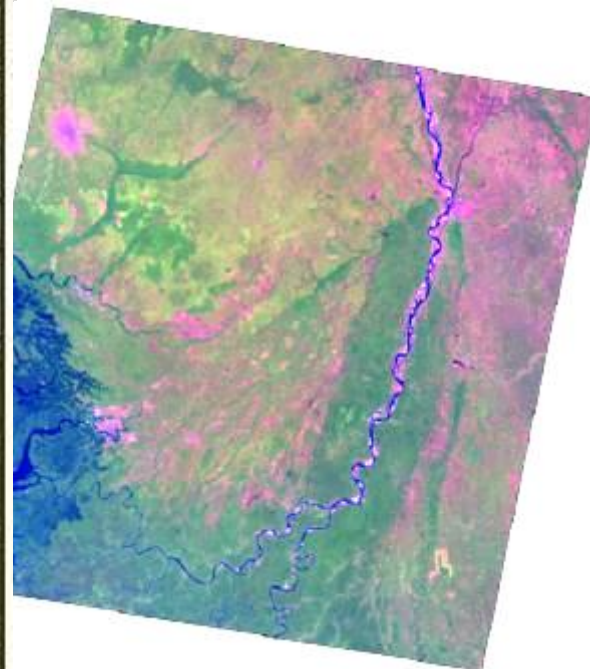
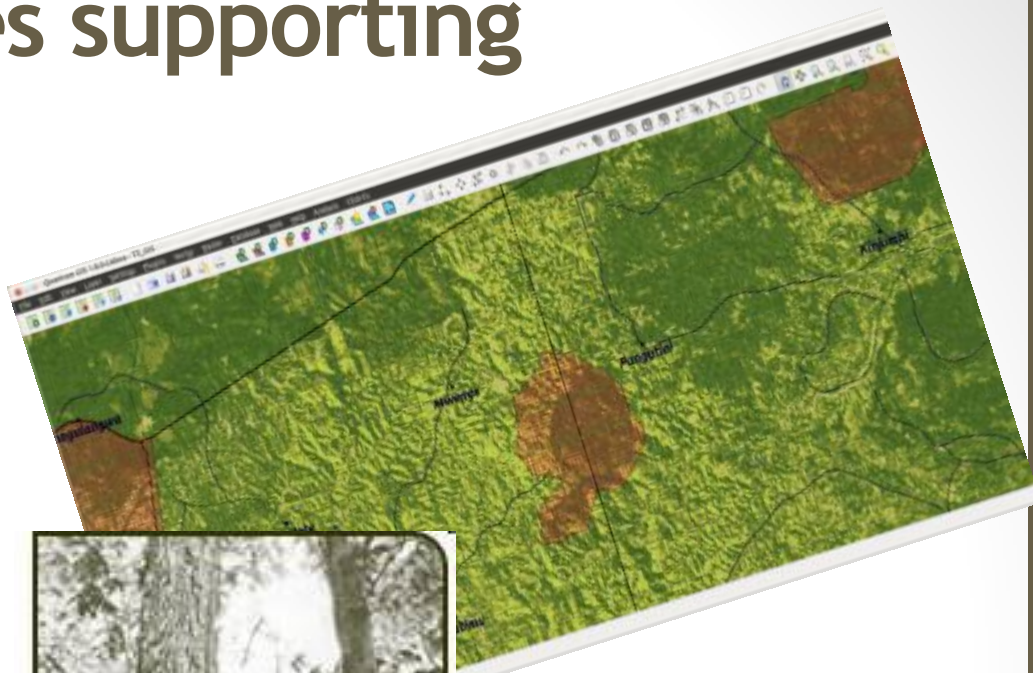
FRA

NFMS
NFI

FAO-FIN

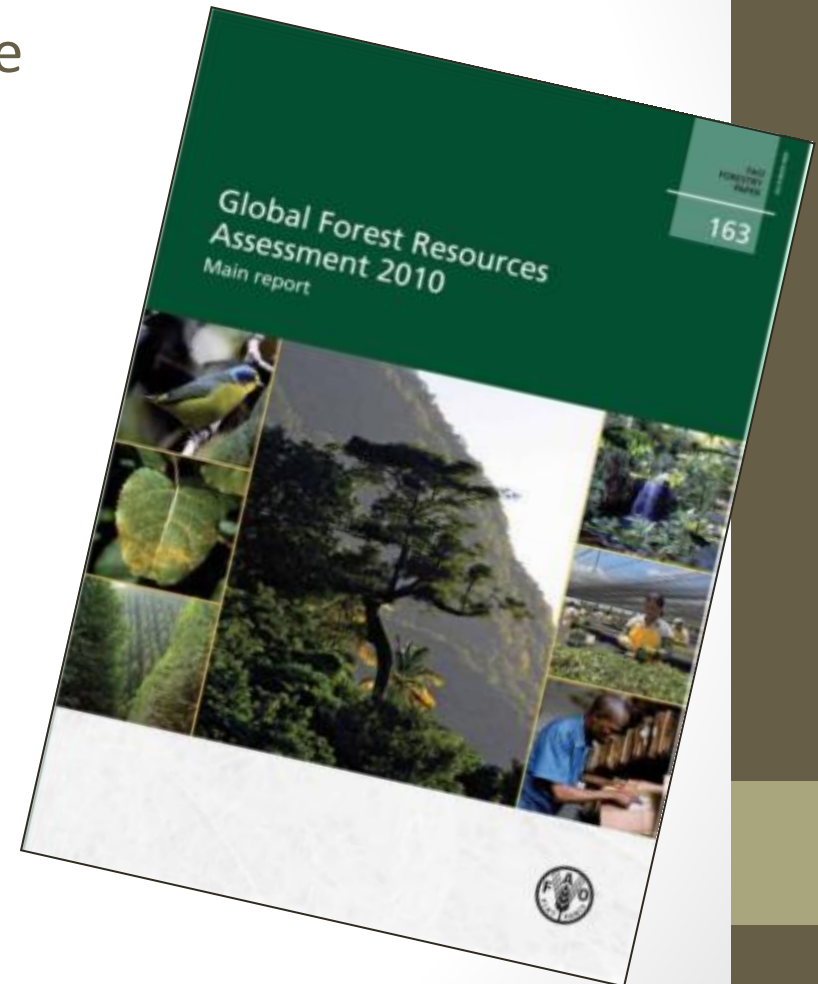
Open Foris tool kit
Collect Earth

UN-REDD
(FAO, UNDP & UNEP)



Global forest resources assessment (FRA)

- FAO has been monitoring the world's forests at 5 to 10 year intervals since 1946
- FRA produced every five years to provide a consistent approach to describing the world's forests and forest changes
- FRA based on Country Reports and remote sensing



FRA

NFMS

FAO-FIN

UN-REDD

National forest monitoring systems (NFMS)

FRA

NFMS

FAO-FIN

UN-REDD

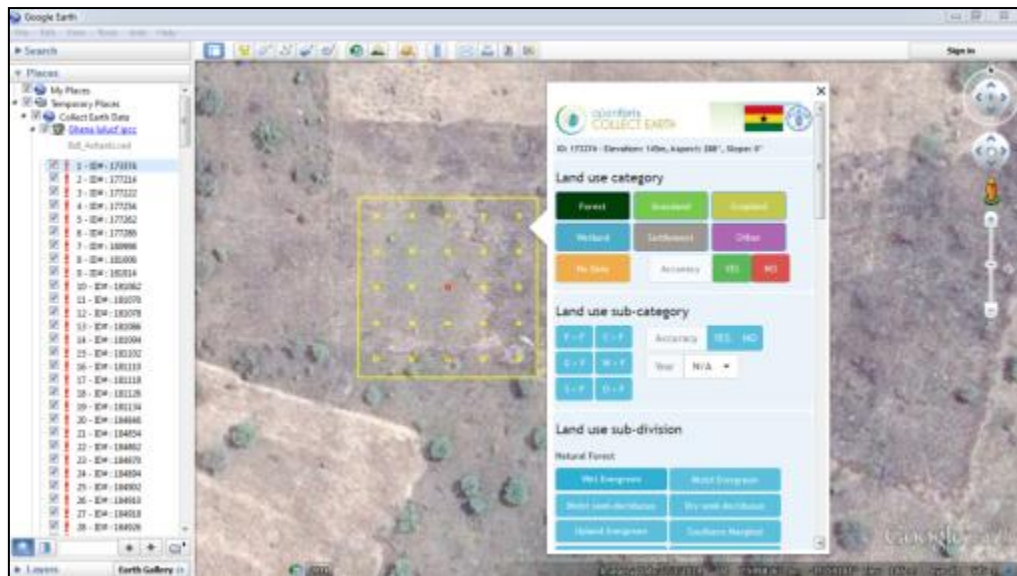
Strengthen national capacities for long term forest monitoring and assessment

**Development of
cost effective &
pragmatic
methods & tools**

**Capacity
Building:
Technical
support to
countries' NFI**

**Awareness
raising
&
Knowledge
sharing**

**Partnerships
&
Networking**



- Free and open-source
- User-friendly data collection tool
- Fully customizable
- Tailored for LULUCF assessment
- Consistent with IPCC guidelines
- Compatible with the ALU GHG tool

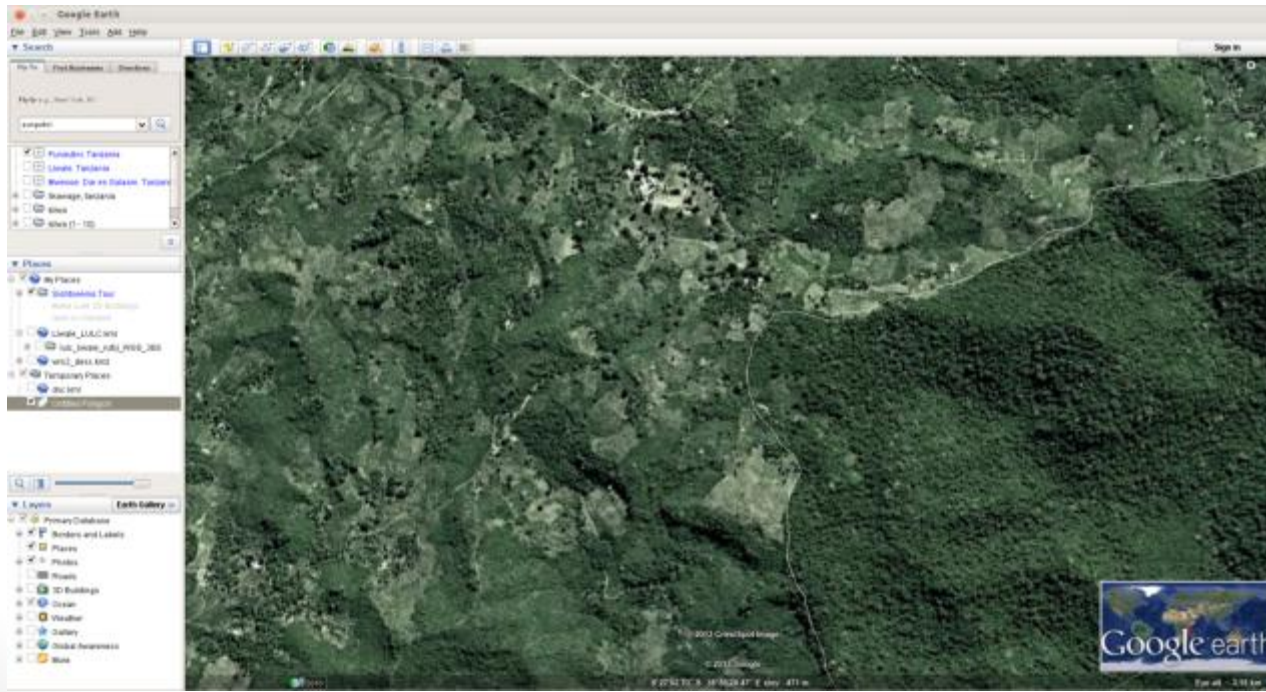
- Used for land use monitoring in over 25 countries
- Suitable for individual and collective work
- Limited remote sensing and GIS skills necessary
- Built-in support for multiphase forest inventories



Download from www.openforis.org



FAO's support to National Forest Monitoring Systems and MRV for REDD+



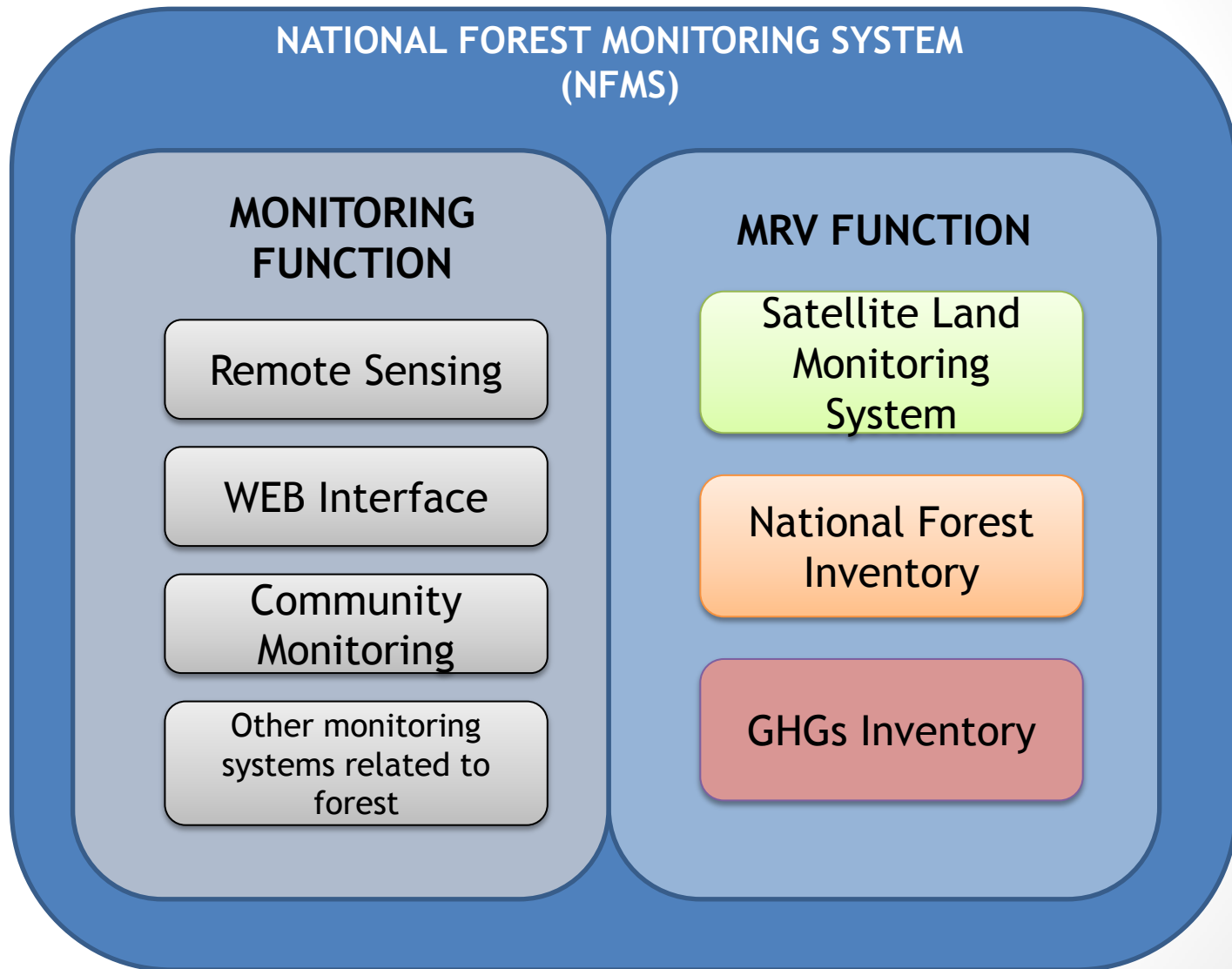
FAO and its role in REDD+

- ❑ FAO's key role in REDD+ readiness is to help countries develop, implement and operationalize their National Forest Monitoring System (NFMS)
- ❑ FAO also assists countries in conceptualizing and implementing REDD+ activities and in the development of policies and measures

Key principles of FAO's support

- National ownership
- Alignment with the UNFCCC process
- Step-wise approach that allows for improvement over time
- Builds upon existing capacities, available data and systems in place
- Use of open-source, freely available data and tools as much as possible
- Strengthening of national capacities (learning-by-doing)

NFMS and MRV for REDD+



UN-REDD Programme

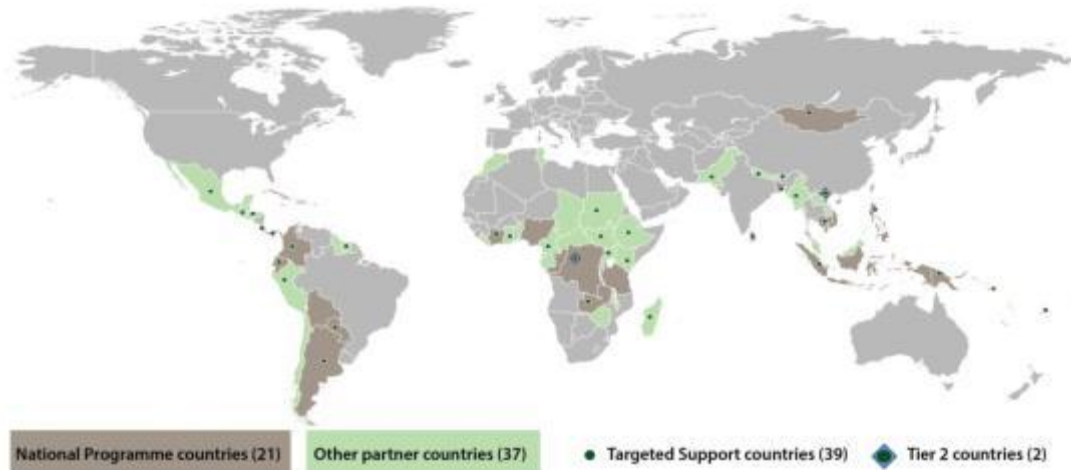
FRA

NFMS

FAO-FIN

UN-REDD

Assists countries and international community creating the enabling environment for REDD+ and contributes to the UNFCCC process



- ✓ Launched in 2008
- ✓ 58 member countries & new countries are joining
- ✓ Global, regional and national programmes
 - National Programme
 - Targetted Support
- ✓ South-south Cooperation
- ✓ Collaboration with FCPF, FIP, UNFCCC

www.un-redd.org | email: un-redd@un-redd.org

Countries with UN-REDD National Programmes: Bolivia, Cambodia, Colombia, Democratic Republic of the Congo (DRC), Ecuador, Indonesia, Nigeria, Panama, Papua New Guinea, Paraguay, the Philippines, Republic of Congo, Solomon Islands, Sri Lanka, Tanzania, Viet Nam and Zambia.
Other partner countries: Argentina, Bangladesh, Benin, Bhutan, Cameroon, Central African Republic, Chile,, Costa Rica, Ethiopia, Gabon, Ghana, Guatemala, Guyana, Honduras, Ivory Coast, Kenya, Lao PDR, Malaysia, Mexico, Mongolia, Morocco, Myanmar, Nepal, Pakistan, Peru, South Sudan, Sudan, Suriname, Tunisia and Uganda.

Sustainable Forest Management Toolbox

A comprehensive technical package of tools, best practices, and examples of their application to facilitate and guide the implementation of SFM

- Facilitate **access to practical SFM knowledge**, tools and experiences
- **Support, guide and inform** the implementation of SFM
- **Connect** different areas of expertise related to SFM for an integrated and cohesive landscape approach
- Identify and highlight **gaps and incoherencies** in knowledge and tools

Conjunto de herramientas GFS

[Herramientas](#)[Casos](#)[Foro](#)[Módulos](#)[Registrarse](#)[Acceder](#)

Gestión colaborativa de conflictos para el fortalecimiento de los programas forestales nacionales (pfn)

2012



La FAO y el Facility para los programas forestales nacionales han elaborado, en estrecha colaboración con las partes interesadas de varias partes del mundo, un módulo de capacitación sobre la gestión colaborativa de los conflictos. La capacitación está diseñada para mejorar la aplicación de los programas forestales nacionales (pfn). El...

[Gestión colaborativa de conflictos para el fortalecimiento de los programas forestales nacionales \(pfn\) Manual de capacitación](#)

2012



Este manual está dedicado a los capacitadores que realizan cursos de capacitación sobre la gestión colaborativa de conflictos para el fortalecimiento de los programas forestales nacionales (pfn). Se basa en el manual compendio (FAO, 2012), que describe el marco y los procesos para la gestión de controversias públicas relacionadas con...

Guía de desarrollo de Bosques Modelo

2008



La Guía de desarrollo de Bosques Modelo forma parte de un conjunto de herramientas que ayuda a las organizaciones y a los individuos que buscan desarrollar un Bosque Modelo y asociarse a la Red Internacional de Bosques Modelo (RIBM). Esta guía presenta los principios que definen un Bosque Modelo, explica...

Guía ilustrada sobre el estado de salud de los árboles. Reconocimiento e interpretación de síntomas y daños

2008



Esta publicación intenta ayudar a las personas a realizar evaluaciones visuales sobre los problemas de salud de los árboles y a emitir diagnósticos preliminares. Esta no es una guía de identificación para insectos plaga y enfermedades de los árboles. Ayudará a los lectores a reconocer síntomas de mala salud, a...



In conclusion

- Forests have a tremendous role to play in addressing climate change
- Forest management must adapt to effectively contribute to this issue
- Climate change can be an opportunity to enhance support for sustainable forest practices
- Knowledge and experiences need to be further systematized and disseminated
- Economic and financial incentives and mechanisms to promote SFM for CC mitigation and adaptation are not yet sufficiently developed
- Let's search together for the best possible solutions for the future, taking into account the potential and limitations of natural resources, the human needs, and the fact that **“what is measured can also be managed”**

Thank you



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