



# ITTO

International Tropical  
Timber Organization

Sustaining Tropical Forests

## ITTO Voluntary Guidelines for the Sustainable Management of Natural Tropical Forests

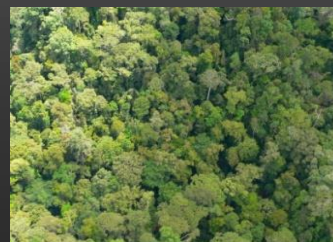
Lignes directrices volontaires pour la gestion durable des forêts tropicales naturelles



**Global background;  
History of SFM Guidelines;  
Guidelines' Content**

Contexte global;  
Historique des lignes directrices de GDF;  
Contenu des lignes directrices

Jürgen Blaser  
Cotonou 8 May 2017



A large, circular image of the Earth as seen from space, showing the Western Hemisphere with North and South America. The image is set against a black background and is framed by a dark, forested landscape with a stream at the bottom.

No exit  
Pas de sortie

# Present and future challenges: the quadruple squeeze

Les défis actuels et futurs: la compression quadruple

Human growth,  
Growth in population  
and consumption  
The 20/80 dilemma

(based on Rockstrom 2010, adapted)

Ecosystem  
services  
The 60% loss  
dilemma

Climate change  
13.5° → 14.5° →  
18.5° C dilemma

Surprises  
The 99/1  
dilemma

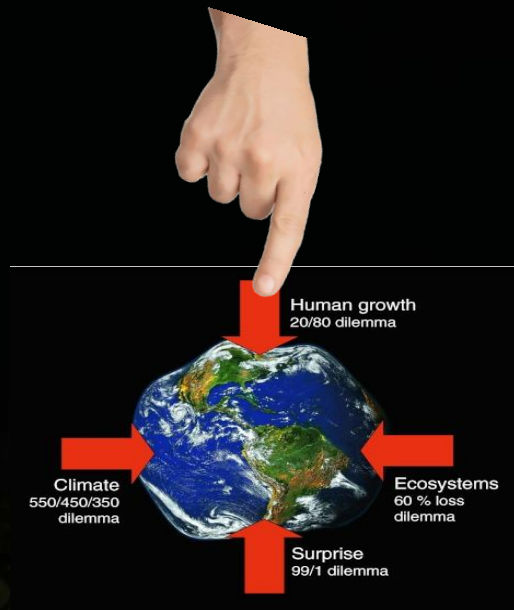
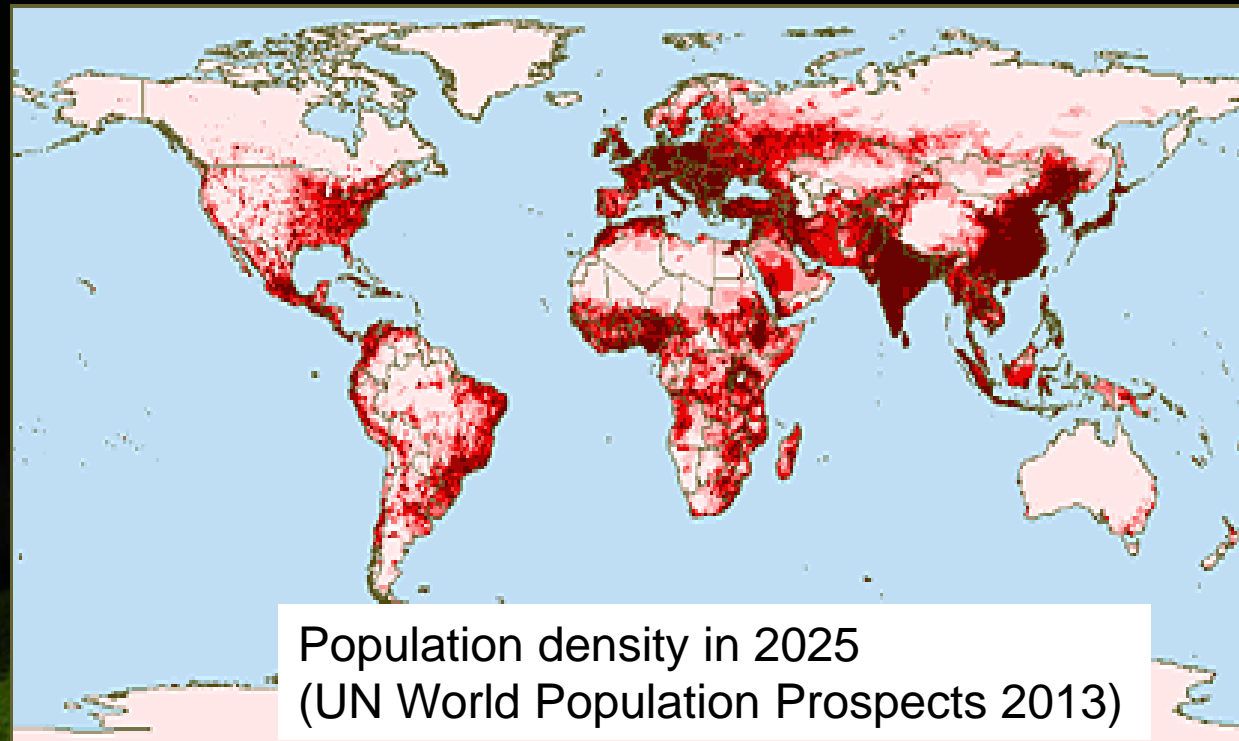




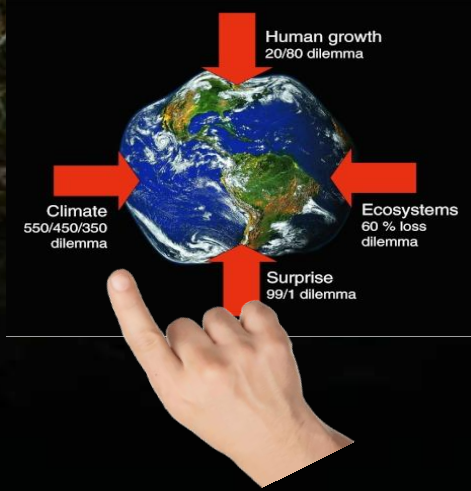
# Population growth, Consumption growth The 20/80 Dilemma

(Rockström, 2012)

<u>Year</u>	<u>World Population</u>
1700:	600 million
2016:	7,400 million
2100:	10,000 million?

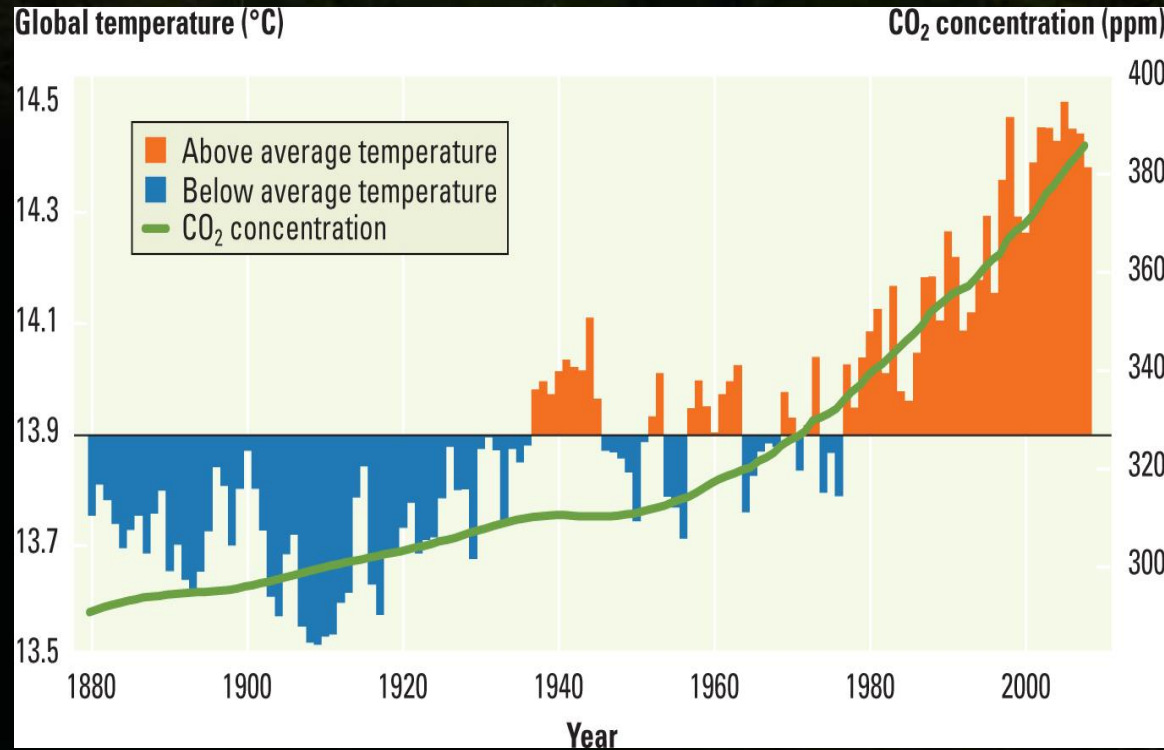






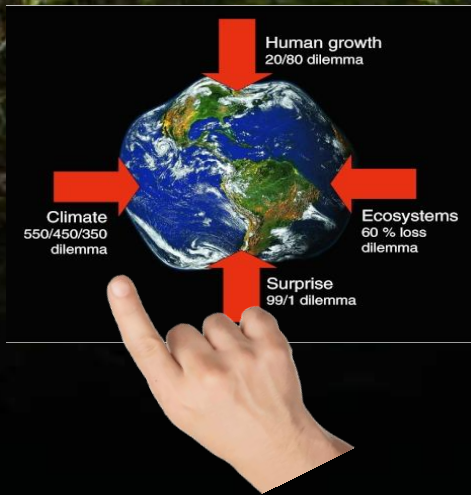
**Climate change**  
**The 13.9°C → 14.6°C**  
**→ 18.0°C dilemma**

**(Rockström, 2012)**

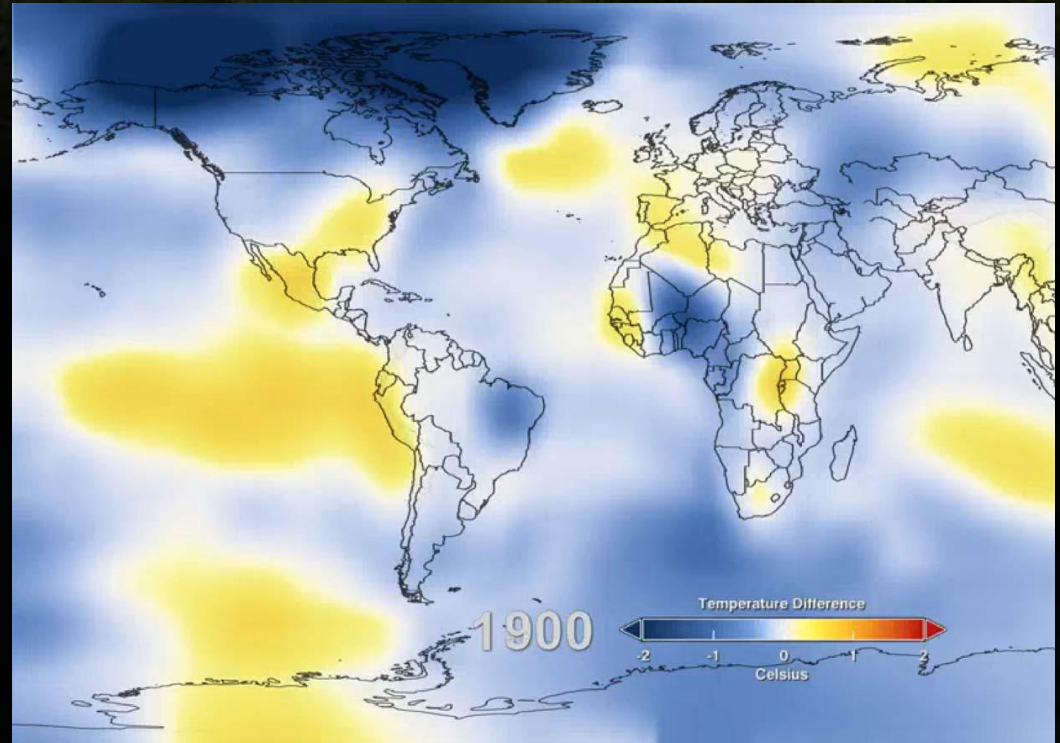


Source: Karl, Melillo, and Peterson 2009  
updated in October 2013.

# Développement de la Température 1880-2014



**Climate change**  
**The 13.9°C → 14.6°C**  
**→ 18.0°C dilemma**  
(Rockström, 2012)



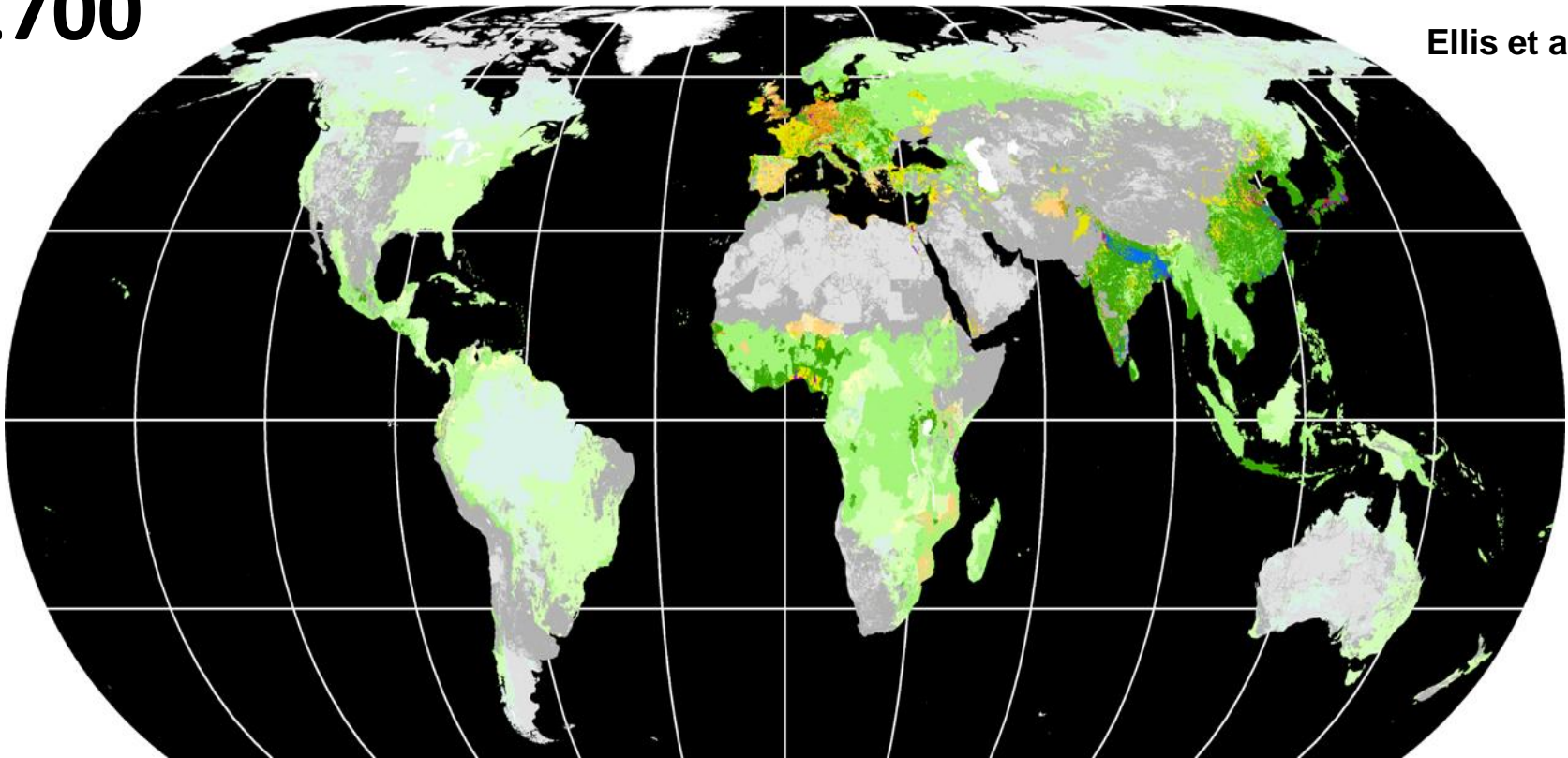
<https://svs.gsfc.nasa.gov/cgi-bin/details.cgi?aid=4252>



# (1) Land use and food security

1700

Ellis et al. 2010



*cultivated*

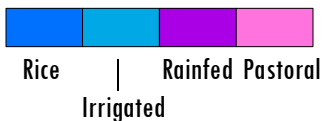
*Extensively used*

*Wild, not managed substantially*

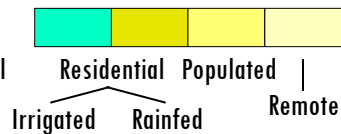
**Urban**



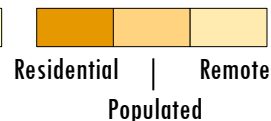
**Villages**



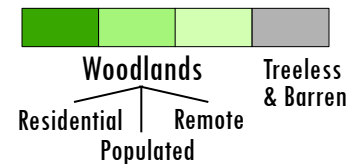
**Agricultural land**



**Pasture**



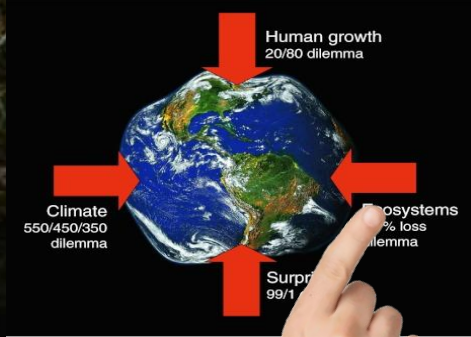
**Semi-natural**



**Natural**







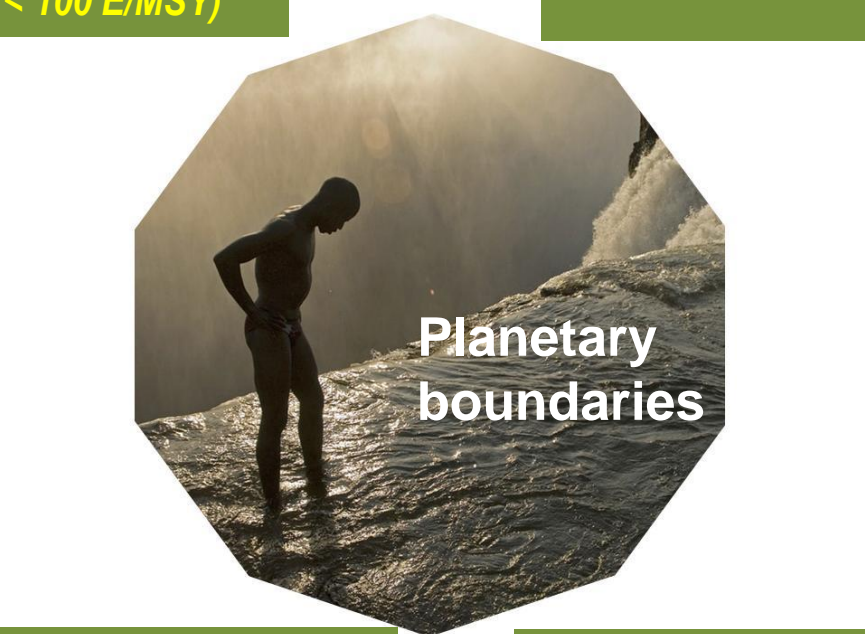
**Loss of  
biodiversity**  
 $< 10 \text{ E/MSY}$   
 $(< 10 - < 100 \text{ E/MSY})$

**Carbon**  
 $< 350 \text{ ppm CO}_2 < 1 \text{ W m}^2$   
 $(350 - 550 \text{ ppm CO}_2 ;$   
 $1-1.5 \text{ W m}^2)$

# Ecosystem services

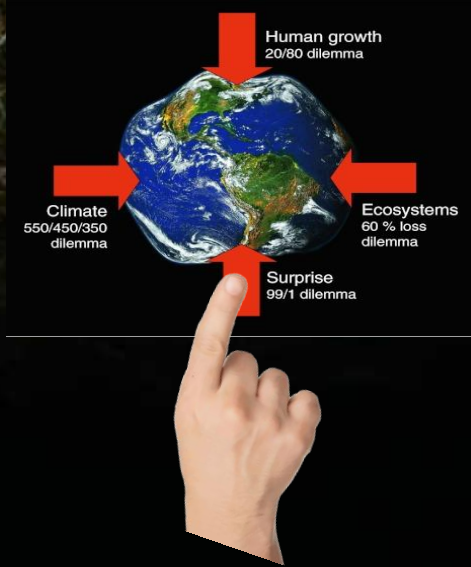
## The 60% loss dilemma

New Scientist, 2009; Rockstrom 2012)



**Forest and Land Use**  
 $\leq 15 \% \text{ of cultivated land}$   
*How much deforestation can we  
afford?*

**Clear water**  
*Storage and run-off*  
 $< 4000 \text{ km}^3/\text{yr}$   
 $(4000 - 6000 \text{ km}^3/\text{yr})$



“Only humans know catastrophes – if they survive them; nature does not – it adapts”

## Unexpected events, surprises The 99/1 Dilemma

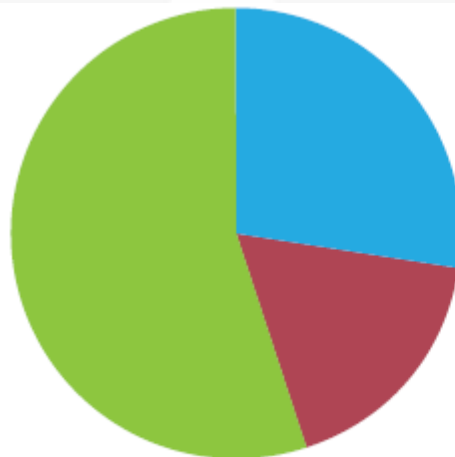
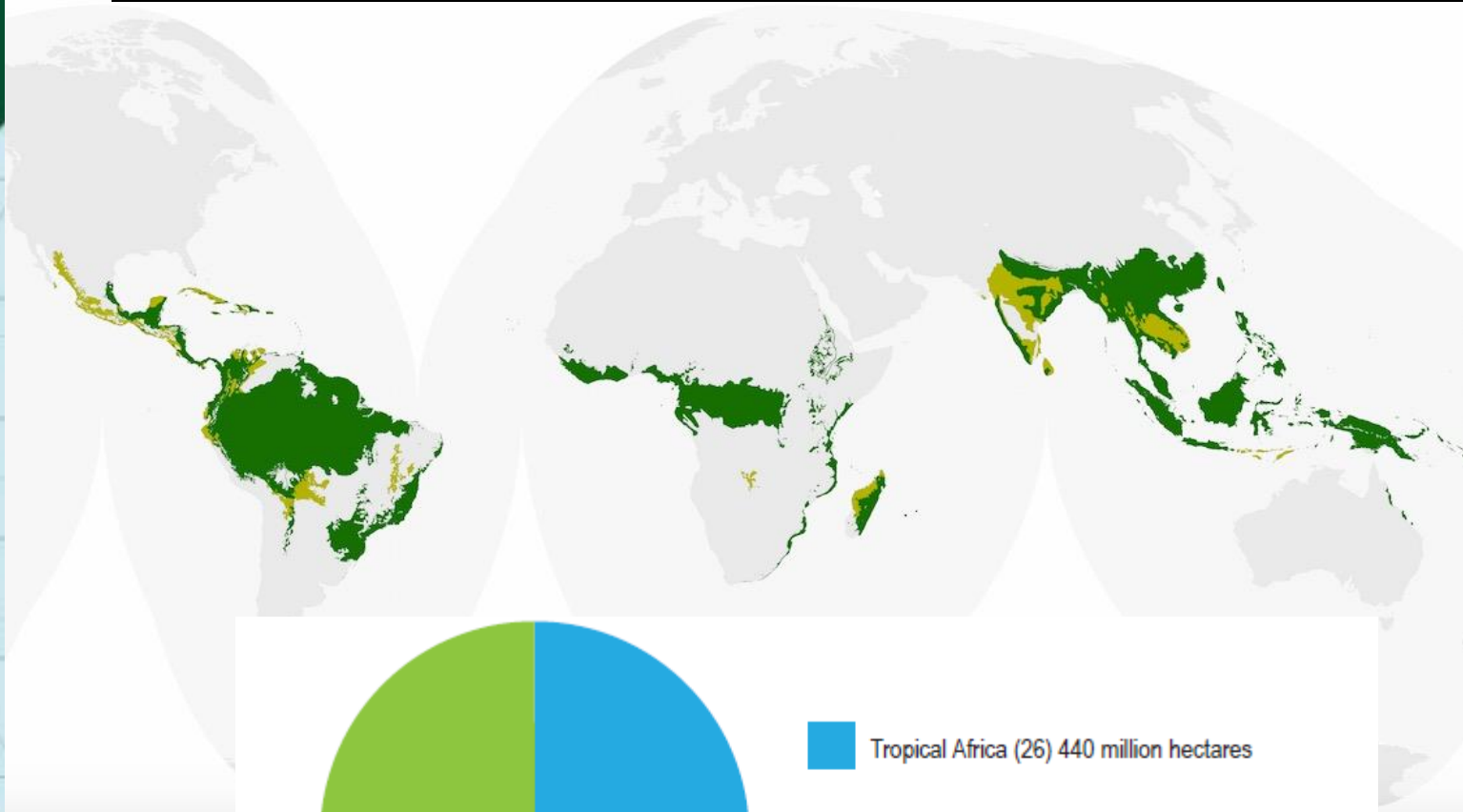
(Rockström, 2012)

« Seul l'homme connaît des catastrophes, tant qu'il y survit; la nature ne connaît pas de catastrophes »

(Max Frisch, 1981,  
Man in the holocene)



Natural tropical PFE estimated at **761 m ha**, comprising **403 m ha** of production PFE and **358 m ha** of protection PFE



-  Tropical Africa (26) 440 million hectares
-  Tropical Asia & Pacific (16) 417 million hectares
-  Tropical Americas (23) 907 million hectares

Note: Figures in brackets = number of countries.



# What future for our forests?



- No linear development

(the past will not be the future)

- Life support systems become more important

(demand for environmental services will become more crucial and more political)

- Increased demand for wood/fibres

(which in principle is good for SFM...)

→ Policy and Governance will be key, as well as knowing how to manage forests sustainably

→ Les politiques et la gouvernance seront essentielles, tout en sachant comment gérer durablement les forêts



**Soon from now: A picture of the past**  
timber harvesting, 1990, Gabon © JBlaser





**In 30 years: another picture of the past**

Timber harvesting, 2012, Sarawak © JBlaser





# Year 2300: Possible future of the Congo Basin

Southern Rep. of Congo, 2012 © JBlaser





**Year 2100: Boreal Forest: more fire, more heat, faster succession**

Ural Forests in northern Svetlovsk oblast, 2012 © JBlaser





# Where do we stand today in sustainably managing the world's forests?

→ We know (overall) how to manage forests sustainably, but we (generally) don't do it

Nous savons (en général) comment gérer durablement les forêts, mais nous (en général) ne le faisons pas

Inequal prediction to climate change; loss of natural tropical climax forests; more vulnerability, land degradation at landscape level, biodiversity loss, unsustainable timber/fiber production...



# Why do we not advance in sustainability managing our forests?



- No real consensus and common approach at international level in respect to the recognition of forests as a „global public good“. This is mostly due to extrasectoral interests on the land and resources and lack of incentives.
- Forest products and services use considered as a national (sovereign) good, nations might not see a priority for SFM (compared with other issues that are in their political interest)
- Forest tenure, access to land and resources insufficiently clarified in many countries
- Common interests reduced to particular issues (biodiversity; role of forests in climate change; carbon)
- The obvious problem of the forest sector in respect to forest governance and law enforcement

# Global Forest Management Goals

- Ecosystem services: resilience
- Permanence of carbon pools
- Wood: timber and fiber

$$\text{SFM}_{\text{future}} = \sum (\text{Eco}_{\text{Serv}} ; \text{Perm}_{\text{CaPo}} ; \text{Prod}_{\text{Fib}})$$





# The Material of the future: wood and fibers



**Intelligent wood structures**



**Bioenergy**



**Clothing**



**Composites**



**Biochemicals**



**Pharma/well-being**



**Innovative paper & wood products**



**Packaging**



**Biopolymers**

# Forests and Development: Creation of agricultural land to feed people



## Who can be against that?

### ⇒ Not all deforestation is undesirable:

- Social and economic pressures make it inevitable that substantial areas of what is still natural forest today will be converted to agriculture and other uses

### ⇒ However, deforestation should be discouraged when:

- it is economically not efficient
- it is non-sustainable – in other words, it is a threat to environmental stability; and
- it leads to social inequities and conflicts.

### ⇒ **Degrading existing natural tropical forests** is economically, ecologically and socially not desirable at all



Gestion de terroirs, Morondava, Madagascar © JBlaser





**Non-permanent deforestation**









**Permanent deforestation**









Brunei

Sarawak





**Changing landscape through “decent” deforestation**







# Global forest policy, national and local realities over the past 25 years

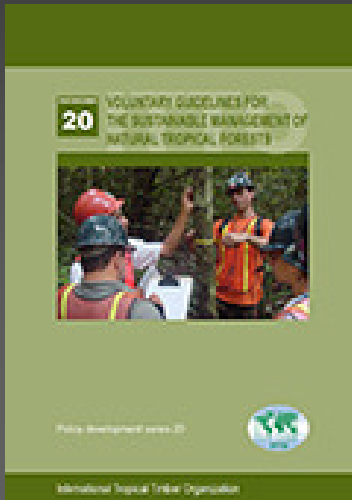


- Global priorities for the forest sector do not necessarily reflect the priorities given in specific regional, national and local contexts
- Global forest challenges that existed over the past quarter century are continuing ones from earlier periods
- Most global forest challenges are related to challenges facing other sectors and are common among many countries
- Forest related challenges exemplify those inherent in sustainable development dealing with conservation/development trade-offs.

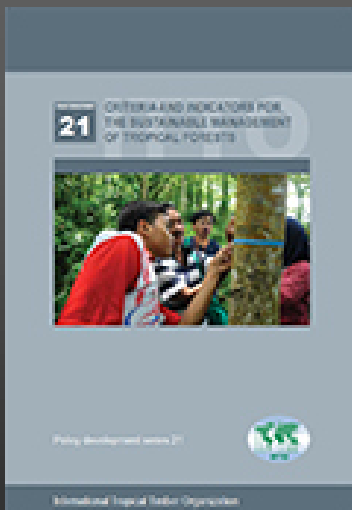
→ **Linked to the dramatic changes in communication and information tools over the past quarter century**



# Tropical forestry: ITTO policy papers and guidelines

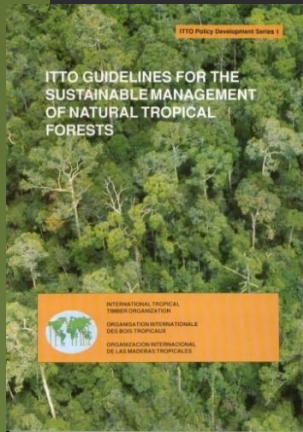


- A series of internationally agreed policy documents for achieving the conservation and sustainable management, use and trade of tropical forest resources and assists tropical member countries to adapt these to local circumstances and to implement them in the field



- Une série de documents d'orientation entérinés au niveau international, ayant pour objectifs non seulement de réaliser durablement la conservation et la gestion, l'utilisation et le commerce des ressources de la forêt tropicale, mais aussi d'aider les pays membres tropicaux à adapter les directives aux circonstances locales et à les mettre en œuvre sur le terrain.



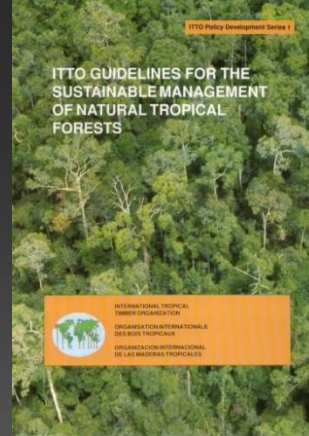


# 1990 SFM Guidelines

- ⇒ Very innovative at the time, but
- ⇒ Highly controversial (Guidelines? International norms?)
  - ⇒ First guidelines at all for natural tropical forests
  - ⇒ Draft elaborated with support of ODA-UK since 1988, ITTO Working Group on “Guidelines for “Best Practice” and Sustainability in the management of tropical forests”
- ⇒ Initiated the development of new concepts:
  - ⇒ Criteria & Indicators for SFM
  - ⇒ Reduced Impact Logging (RIL)
  - ⇒ Forest Management Certification
  - ⇒ FLEG/FLEGT



# 1990 SFM Guidelines: Original scope (before forest certification!!!)

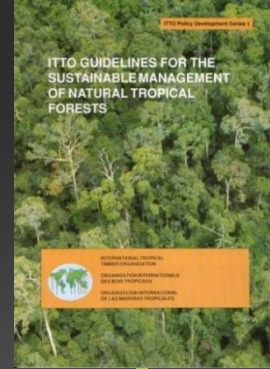


- ⇒ “to be the **international reference standard** for the development of more specific guidelines, at the national level, for sustainable management of natural tropical forests for timber production”
- ⇒ New “voluntary” Guidelines
  - considerable discrepancies on what is “international”, what are “reference standards”



# Why new SFM Guidelines?

- ⇒ ITTO Guidelines developed before the era of C&I, certification, “forest governance”, REDD+, UNFF....
- ⇒ Now a set of ITTO guidelines, national guidelines, standards etc at disposal: how to base revised Guidelines on this work?
- ⇒ Tropical natural forest → logging versus management Reloaded: Silvicultural (polycyclic) management of tropical natural forests: an economically viable land-use option ?
- ⇒ ITTO and countries' forest policies: Shift from a single focus on timber production forests towards multipurpose forestry
- ⇒ New management paradigm: valuation of forest goods & services: focus on biodiversity, landscape, water, carbon, ...
- ⇒ Adaptive management: forest mitigation & adaptation, REDD+





# Purpose of the voluntary guidelines (page 7)

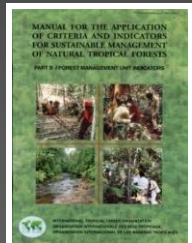
## Objectives des lignes directrices volontaires (page 7)

- ⇒ *highlight* the framework conditions for the application of FM standards in tropical natural forests for the sustainable production of *goods and services*
- ⇒ provide the knowledge base on key policy, legal, institutional, socioeconomic and ecological issues that need to be taken into account in the planning, implementation and evaluation of the FM standards
- ⇒ help planners to integrate SFM at the local and landscape levels
- ⇒ Illustrate, through “suggested actions” the application of the FM standards by different forest owners; and
- ⇒ stimulate the adoption of appropriate and adaptive management practices for conserving and enhancing production capacities for timber, and other goods and services of tropical natural forests.



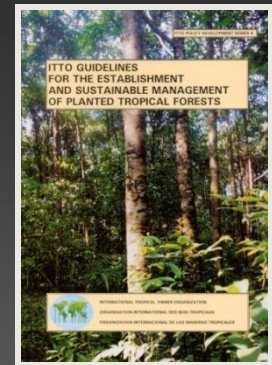
# Guidelines for the sustainable management of natural tropical forests

ITTO C&I  
1992, 1998, 2005, 2016

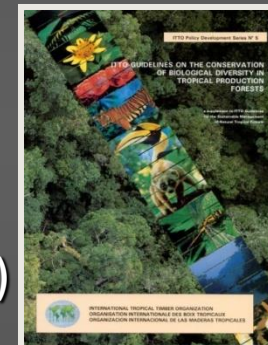


Guidelines for the management of secondary tropical forests, tropical forest restoration and the rehabilitation of degraded forest lands (2002)

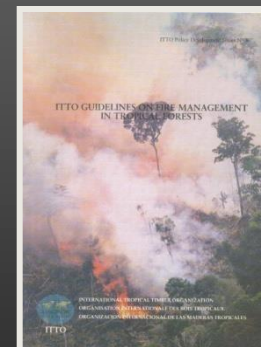
Guidelines for sustainable management of planted tropical forest (1993)



Guidelines for conserving biodiversity in production forests (1993, 2008)

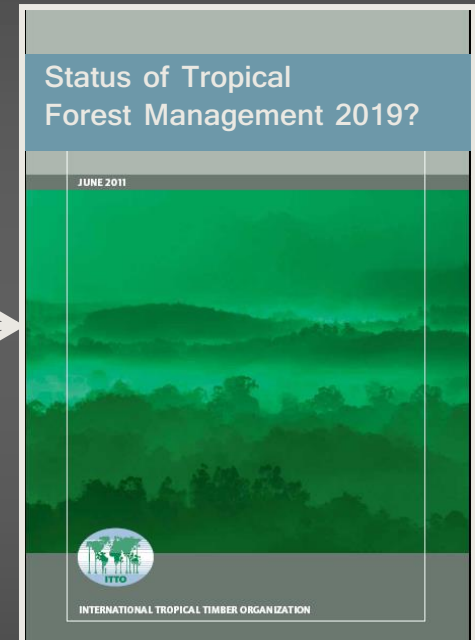
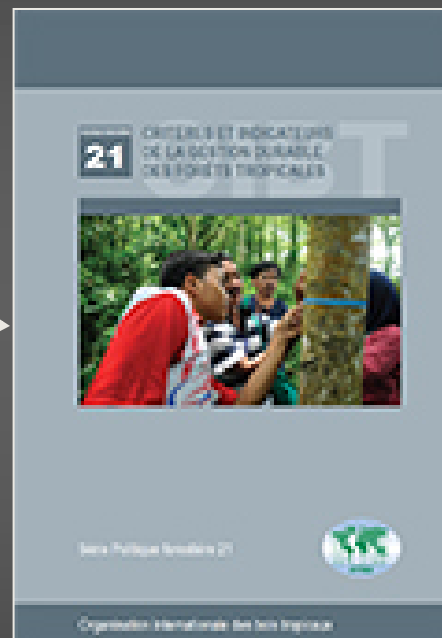
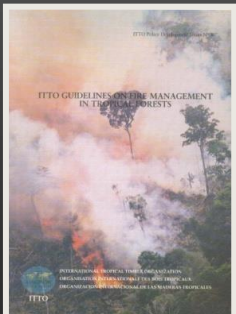
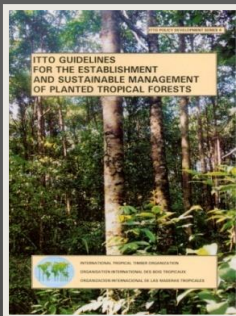


Guidelines on fire management (1998)





# ITTO Guidelines, C&I and SFM Reporting



2015 Natural Tropical Forest Guidelines:  
Integration in a wider capacity building/reporting context  
Standard development, checklist, support for reporting



# ITTO SFM Guidelines – the team...



the process... 2011 – 2014...



# Scope of the 2015 Guidelines

## Portée des lignes directrices 2015

Provide tropical forest country with a tool for helping them to develop their concept to manage their natural tropical forests sustainably

Addresses

National /Subnational Level

and

Forest Management Unit (FMU)\* level

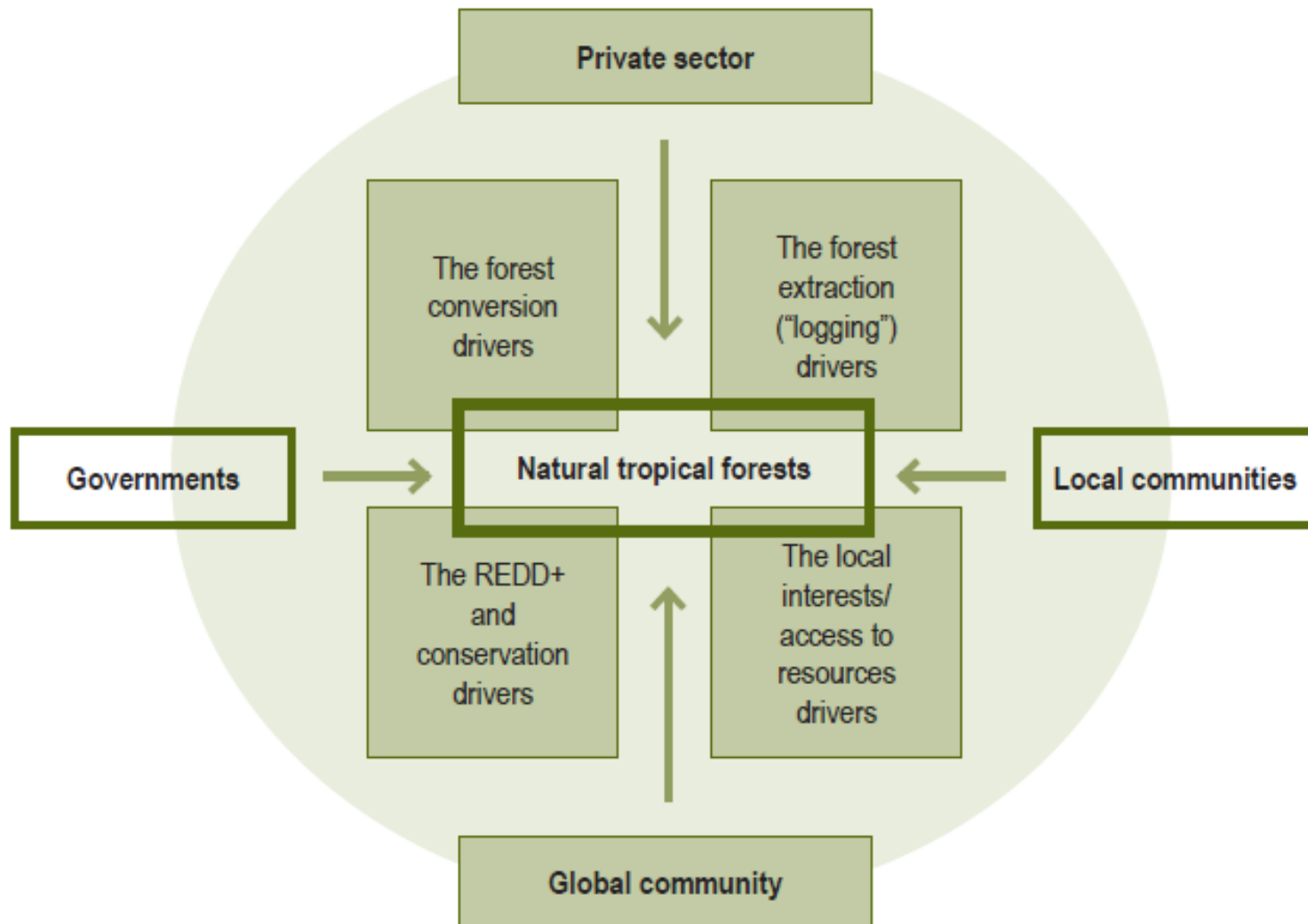
An FMU is a clearly defined forest area, managed for a set of explicit objectives and according to a long-term management plan.

\*Unité forestière d'aménagement





# 2015 SFM Guidelines (page 9): Widened scope/une portée élargie





# Structure/organization of the document

## Structure et organisation du document

- Chapter 2 introduces the context in which the guidelines were developed.
  - Chapter 3 provides an overview of the principles and their relationships with the ITTO C&I for SFM
  - Chapter 4 set outs the guidelines for each of the principles, as well as an open-ended list of suggested actions for each guideline
  - A tailor-made glossary, list for further research and extended reference list
- voluntary; a framework guide; adaptable to specific conditions



# The changing context of SFM in the tropics

## Le contexte changeant de la GDF dans les régions tropicales

Page 11 of the document:

17 «issues» listed to consider for a renewed look at SFM Guidelines for natural tropical forests

17 défis ayant marqué l'utilisation et la gestion des forêts tropicales depuis 1990

### 1 Developments that have affected the use and management of tropical forests since 1990

- Increased competition for forest land.
- Increased societal demands, expectations on forests and environmental and social awareness about tropical forests and the need to manage them sustainably.
- Increased recognition of the role of tropical forests in delivering “global” environmental services, including those related to biodiversity, water, carbon and ecosystem resilience.
- Increased recognition of the rights of indigenous peoples and local communities over forests and forest use, and the need to safeguard those rights.
- Increased decentralization of control over forests, including privatization and the transfer of ownership to indigenous and local communities.
- The emergence of forest certification as an important driver of SFM.
- Increased awareness of illegality and corruption as major impediments to SFM.
- The increased role of the informal sector and its lack of visibility in national statistics and development plans.
- The increased role of non-governmental organizations in forest management and forest policy development.
- The loss of silvicultural knowledge and practice and a lack of research, leading to overly optimistic cutting cycles and a lack of silvicultural management.
- Increased vulnerability of tropical forests to abiotic and biotic threats attributed to climate change and climate variability.
- The development of REDD+ as part of a global climate-change mitigation agenda and the increasing recognition of forests in the climate-change adaptation agenda. The role of tropical forests in climate-change mitigation and adaptation has raised their visibility to the highest political level.
- Increased demand for wood and wood products, including in domestic demand in many tropical countries.
- The increased role of planted forests in meeting demand for wood products and fibre.
- Increased demand for renewable energy, including forest-based energy.
- An increasing trend to proclaim more protected areas and ban harvesting in natural forests.
- An increased focus on urban forestry and forest recreational areas.



# ITTO

International Tropical  
Timber Organization

Sustaining Tropical Forests



***Le mieux est l'ennemi du bien***

***The perfect is the enemy of good.***

**Voltaire, 1770**