



INTOSAI
Working Group
on Environmental
Auditing

Auditing Forests:

Guidance for Supreme Audit Institutions

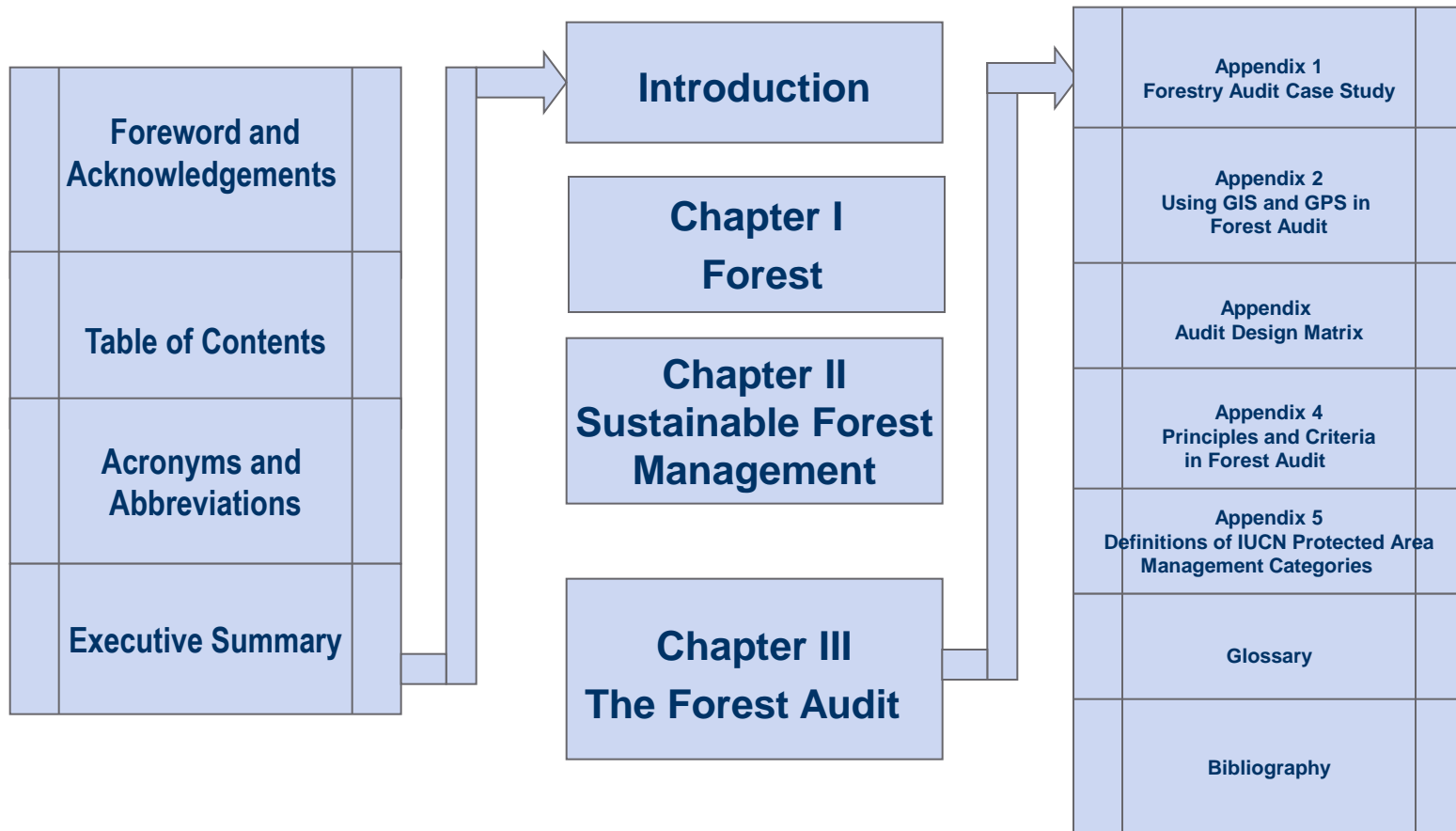
Secretariat of the INTOSAI WGEA

Background

- Project leader: SAI of Indonesia
- Sub committee members:
 - SAIs of Bahamas, Bhutan, Brazil, Cameroon, Estonia, Ethiopia, Kenya, Lesotho, Malaysia, Mexico, South Africa, Uganda and Zimbabwe.
- Guidance was published in 2010



Auditing Forests : Guidance for SAIs



Global importance of forests

- Economic impacts: pulp, timber
- Deforestation and degradation causes huge costs to society
- Biodiversity and ecosystem health
- Climate change
- Flood
- Forest fire
- Livelihoods of the poor



Roles of Government in Forestry

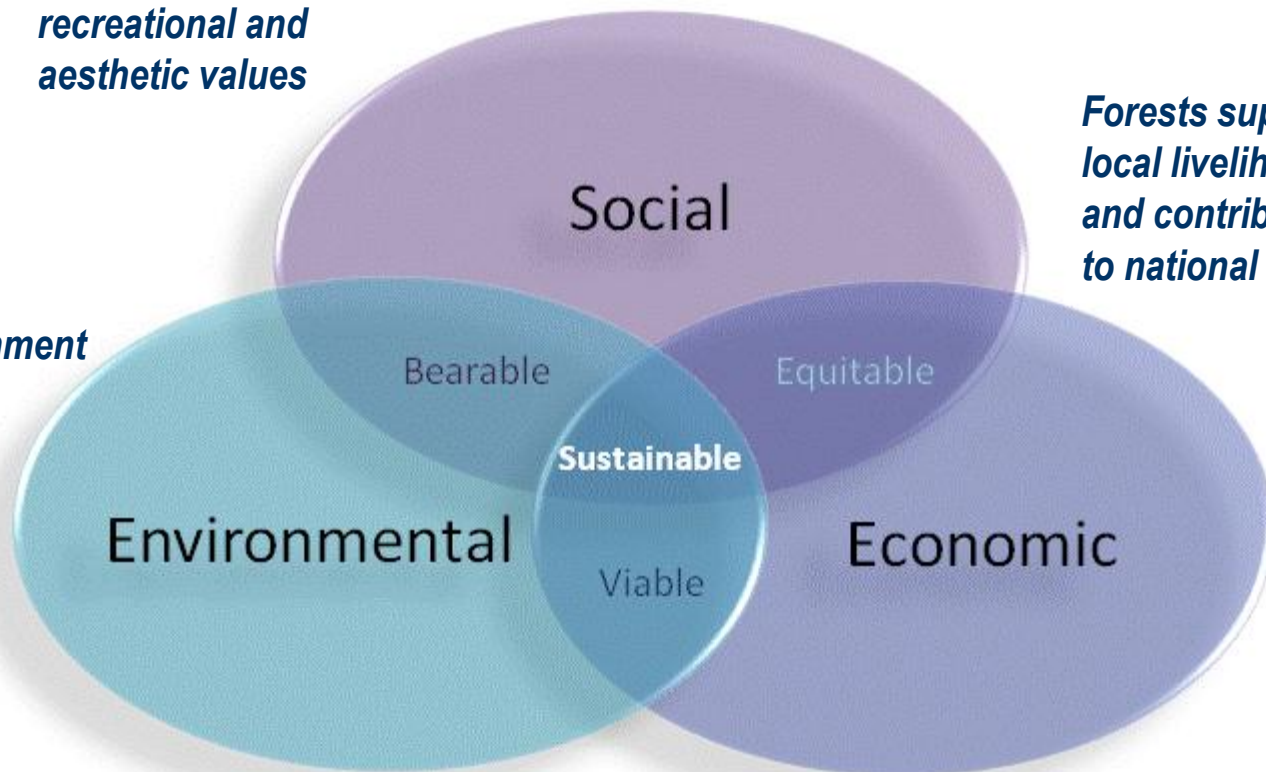
- All governments may have roles with regard to forest certification, although the nature and extent of the roles vary widely between countries according to their circumstances and political conditions.
- Examples of roles played by governments include:
 - Forest owner
 - Buyer/consumer of forest products
 - Contributor to building capacity in the field of certification
 - Support, including finance, drafting national standards and putting in place necessary institutions
 - Moderator between competing schemes
 - Ensuring a level playing field international trade and domestic markets

Sustainable forest management (1)

Forests enrich the quality of people's lives through their cultural, recreational and aesthetic values

Forests support local livelihoods and contribute to national economies

Forests make natural environment more livable



Sustainable forest management (2)

- SFM aims at ensuring goods and services derived from forests **meet current needs** while at the same time **securing their continuous availability** and **contribution to long-term development**.
- In a broader sense, forest management encompasses
 - administrative,
 - legal,
 - technical,
 - economic,
 - social, and
 - environmental aspectsof the conservation and use of forests.

Risks of unsustainable forest management (1)

Biodiversity and Ecosystem Loss

- Logging can be selective and well-managed, but often it is not. Even selectively logged forests support consistently fewer forest-specialist bird species than primary forests. Those species that do persist often become rare. Many of them are under storey insectivores and unable to survive in the open forest.

Forest Fire

- Forest fire risk is the risk of fire caused by human activities (such as land clearing using slashing and burning method). Forest fire risk is a combustion reaction risk that result in heat and flame in forest area that caused by human activity.

Illegal Logging

- Illegal logging risk is a risk that is caused by harvesting, transporting, processing and trading of forest products in violation of national law.

Illegal Use of Land

- Illegal used of land is unlawful entering (gradually and without permission) upon the (*forest estate*) land. For example, a company or group of people occupying an area of forest without a license or permission from the relevant authority.

Risks of unsustainable forest management (2)

Disaster Risk

- The risk of a natural disaster that can exhaust goods and chattels and in a specific scale are harmful to a specific community function

Conflict Risk

- Forests are subject to the needs and interests of many different groups, including local communities, governments, NGOs, business and industry. As with competition for a finite resource anywhere, there is always a risk of conflicting interests between different stakeholders over how the forest is managed.

Revenue Risk

- Where government revenue is derived from taxes and levies on forest activities – often to fund forest rehabilitation activities – there is always the risk of impropriety in the way taxes are collected and the amounts paid. This may be particularly true in developing countries that are still seeking to establish a practice of good governance.

Livelihood Lost (unemployment) Risk

- The risk of losing livelihood is faced by the communities live surrounding the forest that are economically dependent to the forest existence around them. The following are some example of human dependence to the forest; people are exploiting wood waste inside forest and people are cropping among the forest stands to earn their living.



Risks of unsustainable forest management (3)

Social Risk

- The risk of social changes in communities surrounding the forest especially in their lifestyle. Communities surrounding the forest would be moved out and looking for other places to keep living. In addition, social gap will exist because the local communities are removed from forest management activities.

The Decrease of Carbon Storage Risk

- Unsustainable forest management would cause a significant decrease in trees quantity, hence it would cause the decrease of nature ability in converting carbon dioxide (CO₂) into oxygen (O₂). Furthermore, the increase of CO₂ in the air is higher than the increase of O₂, hence it will influence the temperature on the earth surface.

The Destruction of Water Quality

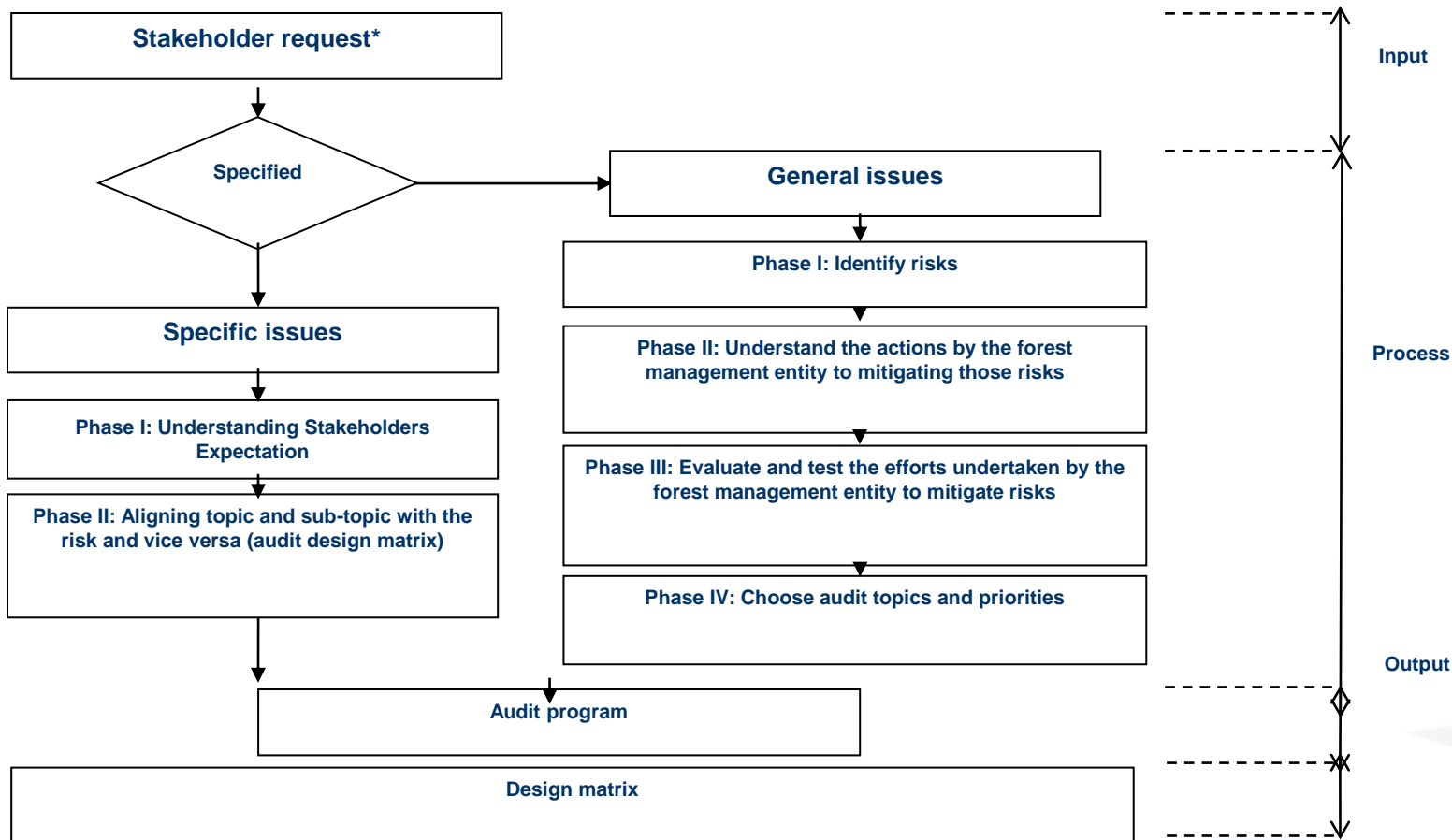
- The destruction of water quality is the forest loss of power in restraining the water, managing water, protecting land to prevent flood, controlling erosion, preventing the intrusion of the sea, and keeping the soil fertile.

Shortage of Industrial Supply Risk

- The risk meant by the decrease in forestry downstream industry raw material that causing the imbalance between supply and production.



Flow chart of risk-based audit approach

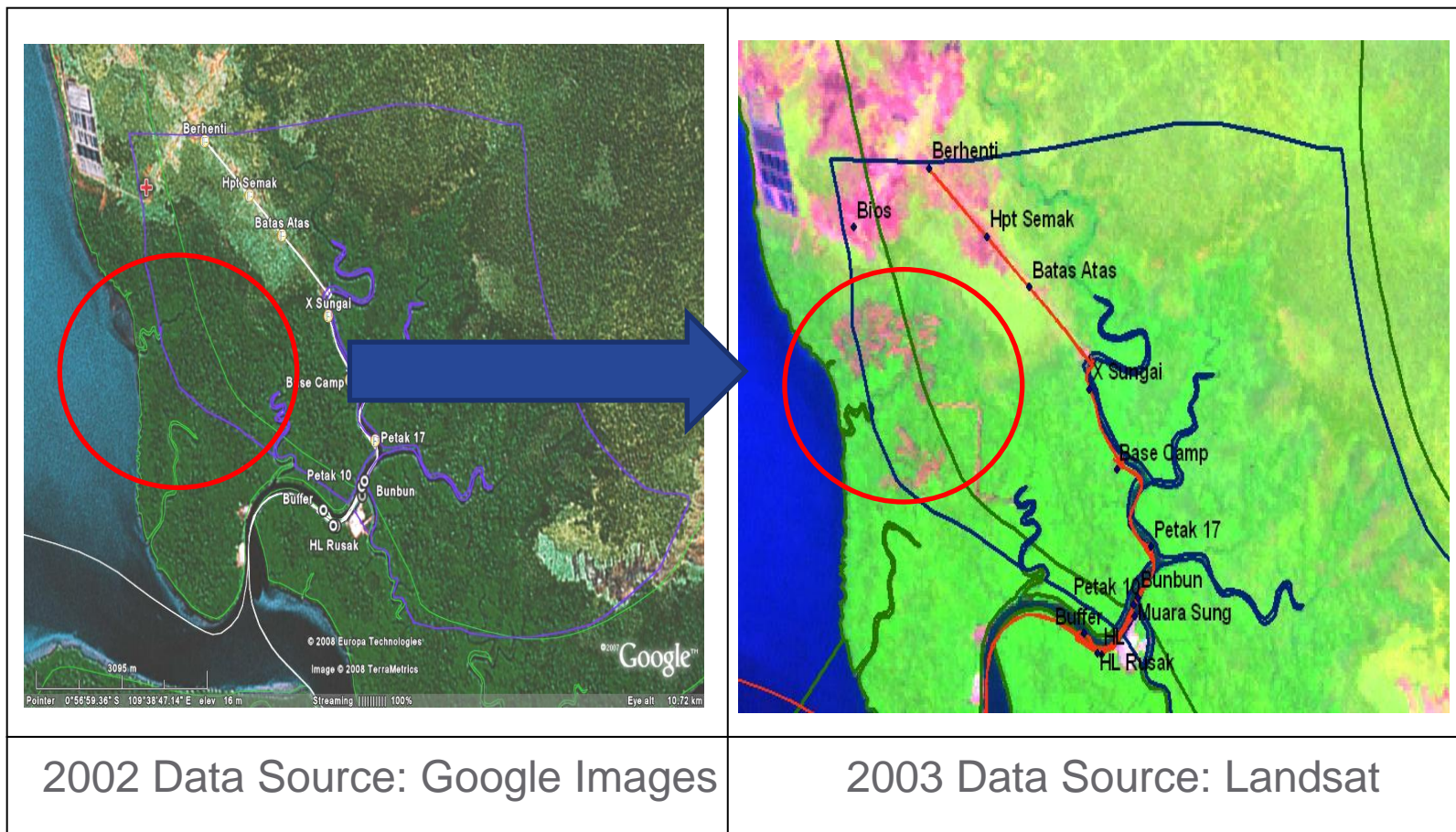


The Advantages of GIS in Forestry Audit

GIS can be used in

- **Planning:** to determine audit sample (focus area to be audited)
- **Executing:** to extend the audit coverage, to prove and to collect evidence, such as ground checking using GPS and analyze/process the spatial data
- **Reporting:** to create audit report more valuable

Case of Deforestation



Audit design matrix, pg 55

Topic	Sub-topic	Biodiversity and ecosystem loss	Forest fires	Illegal logging	Illegal use of land	Disaster	Conflict	Revenue loss	Livelihood loss	Social problems	Decreased carbon storage	Damage to water management	Shortage of raw materials for industry	Unemployment
Policy and Legislation	Forest Policy		X	X	X		X							
	National Forest Inventory	X	X	X				X		X				
	Permanent Forest Estate	X	X	X	X			X				X		
	Protection of Biological Diversity	X												
	Soil and water protection	X				X						X		
	Forest Ownership	X	X	X	X		X	X						
	National Forest Service				X									
Forest Management	Planning	X	X	X					X	X	X		X	X
	Harvesting	X	X	X				X	X	X	X			X
	Forest Protection	X	X	X	X	X	X			X		X	X	
	Legal Arrangements	X	X	X	X		X	X	X	X				X
	Monitoring and research	X	X	X	X	X								
Socio-economic, financial and cultural	Relationships with local population	X			X		X		X					
	Economics, incentives, taxation		X	X	X				X					

INTOSAI WGEA guidance

- is available at <http://www.environmental-auditing.org/Home/WGEAPublications/StudiesGuidelines/tabid/128/Default.aspx>
- SAI of Indonesia is developing training materials based on the guidance. Materials will be available for use in June 2013.
- See also INTOSAI WGEA database of Environmental Audits Worldwide at <http://www.environmental-auditing.org/Home/EnvironmentalAuditsWorldwide/AuditsbyCountry/tabid/126/Default.aspx>

Conclusions

- Government activities related to forestry can be audited as any ordinary (performance) audit
- Specific features of forestry
 - lots of data
 - difficult to measure volume of timber
 - difficult to evaluate the state of forest
 - closed circle of forestry experts



Thank you!

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