## **Module Two**

Defining Principles, Criteria, Indicators and Standards.





water & forestry

Department: Water Affairs & Forestry REPUBLIC OF SOUTH AFRICA

### Aim of the Module

"To define PCI&S and discuss their implications and meaning."

- Definitions
- Principles
- Criteria
- Indicators
- Applicability

#### **Overview**

- The focus in developing criteria and indicators has been to develop C and I which are practical, understandable, relatively easy and inexpensive to apply.
- PCI&S are designed to provide key information about the condition of forests and the management of forests at national, provincial, landscape and forest unit scale.

### **Back to Basics** What are Principles, Criteria, Indicators and Standards?



# **Principles** → Criteria, Indicators and Standards

Principles are defined as the <u>broad goal</u> <u>statements for achieving sustainable forest</u> <u>management</u> as set out by society.

– E.g. Natural forest must not be destroyed....

- A principle is a <u>fundamental truth or law</u> as the basis for reasoning.
- Principles are described in the Forest Act, Environmental Management Act and the Constitution.

# Principles, Criteria → Indicators and Standards

- Criteria are the <u>management objectives</u> that are set in order to achieve the broad goals set out in the principles.
  - E.g. Criterion 1: Natural forest are protected.
  - E.g. Criterion 4: Forests are protected from negative effects of fire, pests and diseases and alien invader plants.
- The Forest Act states that Criteria should be developed "on a basis of which it can be determined whether or not forests are being managed sustainably".

# Principles, Criteria → Indicators and Standards

Indicators are tools for measuring whether the management objectives set in the criteria are being achieved.

- E.g. Implementation of forest protection plans.
- E.g. Infestation by alien invader plants.
- The Forest Act states that Indicators "may be used to measure the state of forest management".

### Principles, Criteria, Indicators → Standards

Standards are minimum levels or objectives set as targets to which management should strive in an attempt to improve sustainability.

- Many relevant standards are already contained in law.
- Management goals have been developed where specific standards do not exist.

The Forest Act states that standards must be "appropriate .. in relation to indicators".

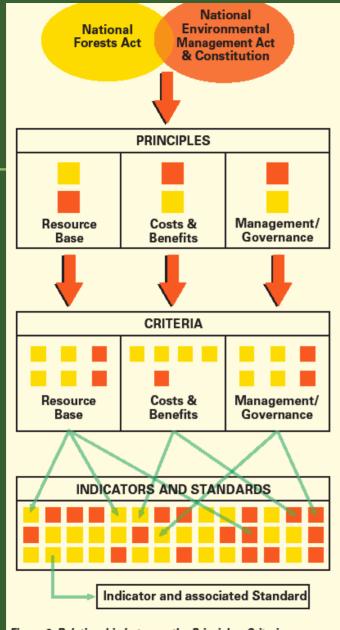


Figure 2: Relationship between the Principles, Criteria, Indicators & Standards Resource base = Ecological

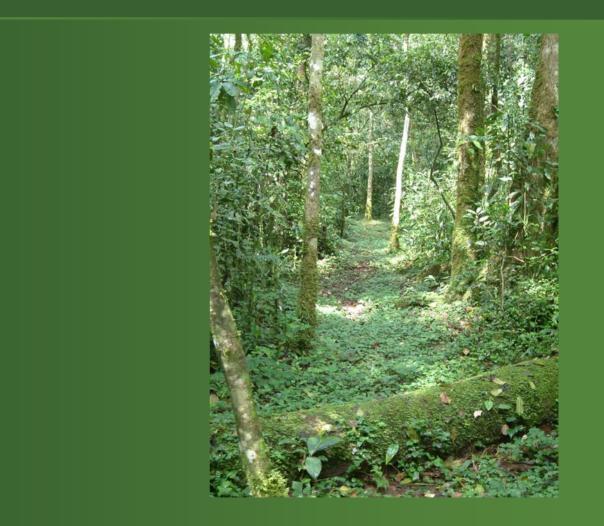
Costs & Benefits = Economic and Social

Management/Governance = Institutional

### Remember

- The set of C,I&S are designed to form a "network" to capture key information on management activities and trends, rather than a complete data set to capture all information related to the management of forests.
- The network approach means that criteria and indicators are interlinked and viewing each in isolation does not provide a holistic impression.
- The objective for the CI&S is to paint an overall picture of the outcomes of forest management rather than measure all inputs.

### **Overview of Principles, Criteria** and Indicators



### Principles, Criteria and Indicators

Can be categorised into four groups:

- Ecological
- Economic
- Social
- Institutional
- Some Principles relate to more than one group.

### **Principles**

- Natural forests <u>must not be destroyed</u> save in exceptional circumstances where, in the opinion of the Minister, a proposed new land use is preferable in terms of its economic, social or environmental benefits.
- Forests must be developed and managed so as to <u>conserve biological diversity</u>, <u>ecosystems and habitats</u>.
- Forests must be developed and managed so as to promote their <u>health and vitality</u>.

- Forests must be developed and managed so as to <u>sustain the potential yield</u> of their economic, social and environmental benefits.
- Forests must be developed and managed so as to <u>conserve natural resources</u>, <u>especially</u> <u>soil and water</u>.
- Forests must be developed and managed so as to promote the fair distribution of their economic, social, health and environmental benefits.

- Forests must be developed and managed so as to <u>advance persons or categories of</u> <u>persons disadvantaged by unfair</u> <u>discrimination</u>.
- Forests must be developed and managed so as to <u>conserve heritage resources and</u> <u>promote aesthetic, cultural and spiritual</u> <u>values</u>
- Environmental management must be integrated taking into account social, economic and environmental impacts of activities

The Participation of all interested and affected parties in environmental governance must be promoted and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation and participation by vulnerable and disadvantaged persons must be ensured

Public administration must be <u>governed by</u> the democratic values and principles enshrined in the Constitution, including the following principles (e) people's needs must be responded to, and the public must be encouraged to participate in policy-making (f) public administration must be accountable, (g) transparency must be fostered by providing the public with timely, accessible and accurate information.

### Criteria 1-6: Ecological

- 1. Natural forests are protected.
- 2. Biodiversity of natural forests is conserved.
- 3. Forest ecosystem structures are conserved and processes maintained.
- Forests are protected from negative effects of fire, pests and diseases, and alien invader plants.
- 5. Production potential is maintained or improved.
- 6. Soil and water resources are conserved.

### Criteria 7-8: Economic

- 7. Forests make a positive contribution to the economy.
- 8. The forest economy is resilient.



### Criteria 9-18: Social

- 9. People have rights to access and use of forests.
- 10. Forests are used responsibly.
- 11. Land tenure of forest areas is clearly defined, recognised and secure.
- 12. Cultural, ecological, recreational, historical, aesthetic and spiritual sites and services supplied by forests are maintained.
- 13. The distribution of employment benefits from forests is fair.

## 14. The distribution of the costs from forestry is fair.

- 15. Crime in forestry areas is minimised.
- 16. Forestry contributes to the reduction of HIV/AIDS and its resultant impacts.
- 17. There is effective stakeholder participation in forestry management.
- 18. Forests are developed and managed so that persons or categories of persons previously disadvantaged by unfair discrimination are advanced.

### Criteria 19-24: Institutional

- 19. ..
- 20. ..
- 21. Forest management institutions comply with all relevant legislation and customary law.
- 22. ..
- 23. Forest management planning promotes sustainable use and development of the forest resource.
- 24. ..

### Indicators

- 1. Natural forests are protected.
  - Implementation of forest protection plans.
  - State of forest protection.
- 2. Biodiversity of natural forests is conserved.
  - Presence of rare, threatened and endangered species.

# 3. Forest ecosystem structures are conserved and processes maintained.

- Condition of forest margins.
- Condition of natural forest canopy.
- Condition of under story tree and shrub layer.
- Extent and connectivity of natural ecosystems.
- Rehabilitation of degraded forests.

- Forests are protected from negative effects of fire, pests and diseases, and alien invader plants.
  - Impacts of pests and diseases.
  - Negative impacts of fire.
  - Infestation by alien invader plants.

# 5. Production potential is maintained or improved.

- Standing stock assessment.
- Level/rate of resource use.
- Level of multiple resource use from forest ecosystems.
- Identification and development of new alternative forest resources.
- Resource use efficiency.

#### 6. Soil and water resources are conserved.

- Water quality.
- Soil conservation.
- Riparian zone and wetland management activities.
- Pollution levels.
- 7. Forests make a positive contribution to the economy.
  - Forestry's contribution to the local economy.
  - Forestry's contribution to local development.

#### 8. The forest economy is resilient.

- Diversification within the forest industry.
- Staff turnover in forest based businesses.
- Taxes, levies and charges paid by forestry.
- 9. People have rights to access and use of forests.
  - Opportunities for forest based activities.
  - Rights are understood and respected.

#### 10. Forests are used responsibly.

- Control and enforcement of access and use.
- 11. Land tenure of forest areas is clearly defined, recognised and secure.
  - Security of land tenure.

- 12. Cultural, ecological, recreational, historical, aesthetic and spiritual sites and services supplied by forests are maintained.
  - Identification and registration of significant sites.
  - Level of satisfaction among users.
  - Condition of sites of significance.

- 13. The distribution of employment benefits from forests is fair.
  - Employment opportunities associated with forestry.
  - Employer compliance with labour legislation.
  - Remuneration of workers.

# 14. The distribution of the costs from forestry is fair.

- Negative impacts of forestry activities on people.
- Discontinuation of forest activity.
- Conflict over distribution of costs.
- 15. Crime in forestry areas is minimised.
  - Incidence of crime.
  - Cost of security

# 16. Forestry contributes to the reduction of HIV/AIDS and its resultant impacts.

#### Absenteeism.

- HIV/AIDS management strategies.
- 17. There is effective stakeholder participation in forestry management.
  - Effectiveness of participation.
  - Implementation of outcomes of participation.
  - Capacity to participate.
  - Conflict management.

- 18. Forests are developed and managed so that persons or categories of persons previously disadvantaged by unfair discrimination are advanced.
  - Generation of forest management opportunities for previously disadvantaged persons.
  - Awareness among previously disadvantaged persons of forest management opportunities.

- 21. Forest management institutions comply with all relevant legislation and customary law.
  - Compliance with forest management legislation and customary law.
- 23. Forest management planning promotes sustainable use and development of the forest resource.
  - Forest management planning.

Are the same C,I&S used for all forests everywhere?

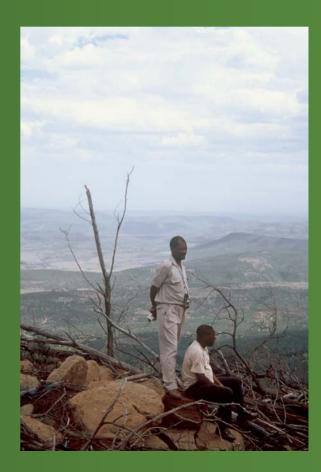
No, CI&S can take into account differences such as:

- Forest type (natural vs plantation).
- Forest size, e.g. small growers have less financial ability so may have lesser minimum standards applied to them.
  Forest ownership (state vs private).

### What is my role in PCI&S?

You must understand all the CI&S applying on your estate because different CI&S apply to different forests types and sizes.

You will apply only the CI&S relevant to your area.



### End of Module Two.