# Experiences from monitoring and reporting on forests

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## Background

#### **National and International**

Australia's State of the Forests Report (1998) Australia's State of the Forests Report (2003) Australia's State of the Forests Report (2008) Criteria and Indicators of Sustainable Forest Management Montreal Process Implementation Group for Australia National Forest Inventory International Conference on Criteria and Indicators for Sustainable Forest Management (2000)





# Background

Criteria and Indicators of Sustainable Forest Management – 44 indicators

- Biodiversity
- Productive capacity
- Ecosystem health
- Soil & water
- Global carbon
- Socio-economic
- Legal & institutional framework





# Background

State Forest Management Plan 1994-2003 - Progress and compliance reports Forest Management Plan 2004-2013 - 33 Key Performance Indicators - Protocols for KPI - Mid-term audit of the FMP - FORESTCHECK - monitoring of operations - auditing



# **Indicators of SFM**

#### **Biodiversity** – 9 indicators

- Area of vegetation type by tenure \*
- Area by growth stage
- Fragmentation
- No. species & information for their management
- Risk status of species \*
- Representative species \*
- Risk to genetic variability
- Genetic conservation plan



## **Indicators of SFM**

- Ecosystem health 2 indicators - Scale & impact of threatening processes \*
- Planned & unplanned fire \*



1. Develop & use criteria on which the selection of indicators can be evaluated

2. Use a risk management assessment to inform the selection of indicators and the allocation of resources across indicators

3. Recognise the scale at which the indicator works & ideally ensure that the indicator system addresses a range of scales (species, community, ecosystem, landscape, region)



4. Indicators as part of the management system need to address outcomes, pressures & processes





 Develop protocols to ensure that data & information custodians understand their responsibilities & have the capacity to deliver – do this before committing to any indicator



 Ensure that databases & systems exist to support information collection, storage & reporting, or that there is the capacity to develop the databases



7. Information management is resource intensive- ensure the resources are in place or you will fail

8. Ensure alignment of indicators for multiple purposes

 Ensure that indicators will provide feedback that will assist evaluation of performance and/or refinement of policy or practice

10. Don't try to have a comprehensive set of indicators – that's why they are 'indicators'

11. Take a more strategic approach to collection of information – we found > 400 data sets on monitoring of forests in the Swan, South West and Warren regions.



12. Support the development of indicators through a research and development phase, if required

13. Go through a formal test phase for each indicator to ensure that you know you can deliver

14. Review the indicators & the protocols after each reporting period

do they really achieve the objective?
take a highly critical approach to this review



15. Ensure that management review (supported by monitoring, reporting & evaluation) is embedded in the management system



16. Consider customising indicators to local or regional circumstances

17. Data collection, analysis and interpretation all require technical skills and a technical culture.

18. FORESTCHECK has been a very successful approach for monitoring
and evaluation of impacts of timber harvest on biodiversity

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# FORESTCHECK

- Control & impact
- Vegetation structure & regeneration
  - Nutrition leaf & soil
  - Soil disturbance
    - Coarse woody debris, twigs & litter
  - Macrofungi

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- Crytograms
- Vascular plants
- Invertebrates
- Vertebrates (birds, mammals, reptiles, amphibians)



# FORESTCHECK





Figure 15. The layout of a FORESTCHECK sampling grid.

# Thank you

# **Questions & comments**

