Case Study *Cycas circinalis* L.
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Cycas circinalis  L.                              CYCADACEAE
Appendix II
Endemic -Western Ghats, India
Distribution - *Cycas circinalis*
Cycas circinalis - A multi use cycad

- **Subsistence use** characterized by low volume and high traditional value
- **Commercial use** characterized by high volume and low ecological concerns
- **Users** traditional and non traditional communities
- **Food, Decorative purpose, Medicine and Construction**
Patterns of Use - Subsistence
Patterns of Use-Commercial
Important biological features of the species

- Flowering not regular, identifying male and female plants takes time
- Variations in responses of population to different part harvests
- Differential growth rates from low elevation wet forests to mid elevation dry forests
- Direct responses to fire
Seed Harvest only:
Good levels of regeneration
Seed & leaf harvest:
Poor recruitment and some adult mortality
Seed, leaf, stem harvest:
Adults are depleted

Proportion of individuals

Seedlings >50 50-100 100-150 150-200 200+

Height (cm)
Levels of leaf harvest are extremely high: only the smallest and largest are spared.

Average of 91.3 % of leaves on EACH individual removed.
Responses to Fire
Current methods for (NDF) assessments

- Part of Plant that is harvested
- Quantity of harvest
- Time for recovery
- Local management for regeneration
- Size of population
- Region harvested
Review of criteria, parameters, and data sources for NDF assessments

• Part of plant harvested – Relatively simple to identify except in case of pith harvests which are the most detrimental
• Quantity that is harvested – with involvement of community this can be collected with a greater degree of confidence
• Local management practices need to be documented
• Periodic monitoring of populations through assessments
Key lessons for developing NDF assessments for this type of taxon

- Integrating different kinds of knowledge, indigenous, scientific, managerial etc
- Following the trade routes closely and monitoring them – winning over traders
- Long term monitoring programs for the biology of the species
- Taking different stakeholders along from the inception of the monitoring program
- NDF procedures need to be communicated by the management authority to harvesters and licenses issued at site should be guided by a NDF
Need for regular monitoring
Questions..??

Questions that face us today is the relevance of this assessment to the harvester, trader and manager who are constantly involved in the trade

• How does one come up with a strategy for assessment that looks at habitat, climate and role of the species in the ecosystem?

• How does one increase the stakeholder’s participation in the assessment process?

• How does one factor in all the knowledge available as part of the process of assessment?

• Assessment seems like a one time effort. These changes need to be assessed over a period of time and move to a regular monitoring – NDF monitoring

• Who will bear the costs and reap the benefits of this process?
Thank you