



# Sustainable Bamboo Forest Management Contributes to Effective *Satoyama* Landscape Management

International Network for Bamboo and Rattan  
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ISI, Penang, October 2009





# INBAR

- Dedicated International Network for bamboo and rattan with 34 members
- International Commodity Body for bamboo and rattan
- Innovation through action research
- Partners:
  - National ↔ International
  - Public ↔ Private
- Small & flexible
- Based in a centre of knowledge (China)





# INBAR's Strategy

## Mission:

Improving the social, economic, and environmental benefits of bamboo and rattan

## 4 Strategies:

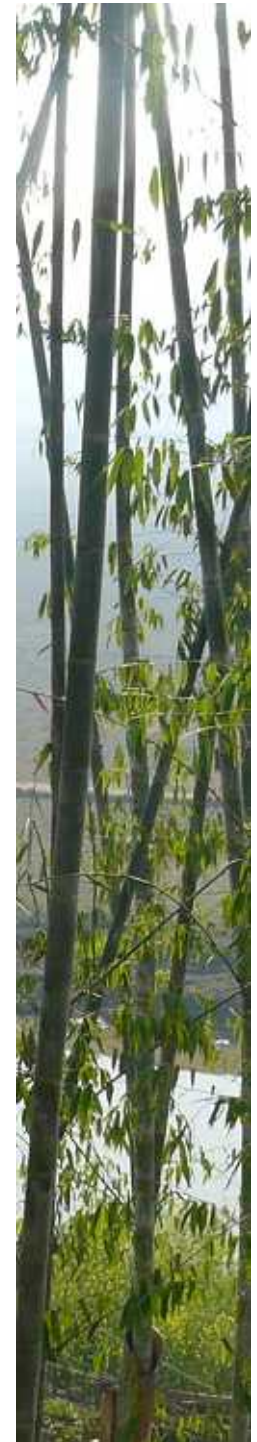
- Network/Partnership
- Better ways and means of livelihood development
- Strengthen sustainable use of the environment
- Fair pro-poor global trading systems





# Bamboo

- Over 1250 species, 100 commercial
- Easier to cultivate than trees for farmers
- Significant addition to farm income
- Export value aprox US\$ 2 bn
- Primary processing possible at community level
- Important landscape feature around the world, but particularly so in Asia and Pacific







# Bamboo *Satoyama* Asia







# Bamboo *Satoyama* LA & Africa

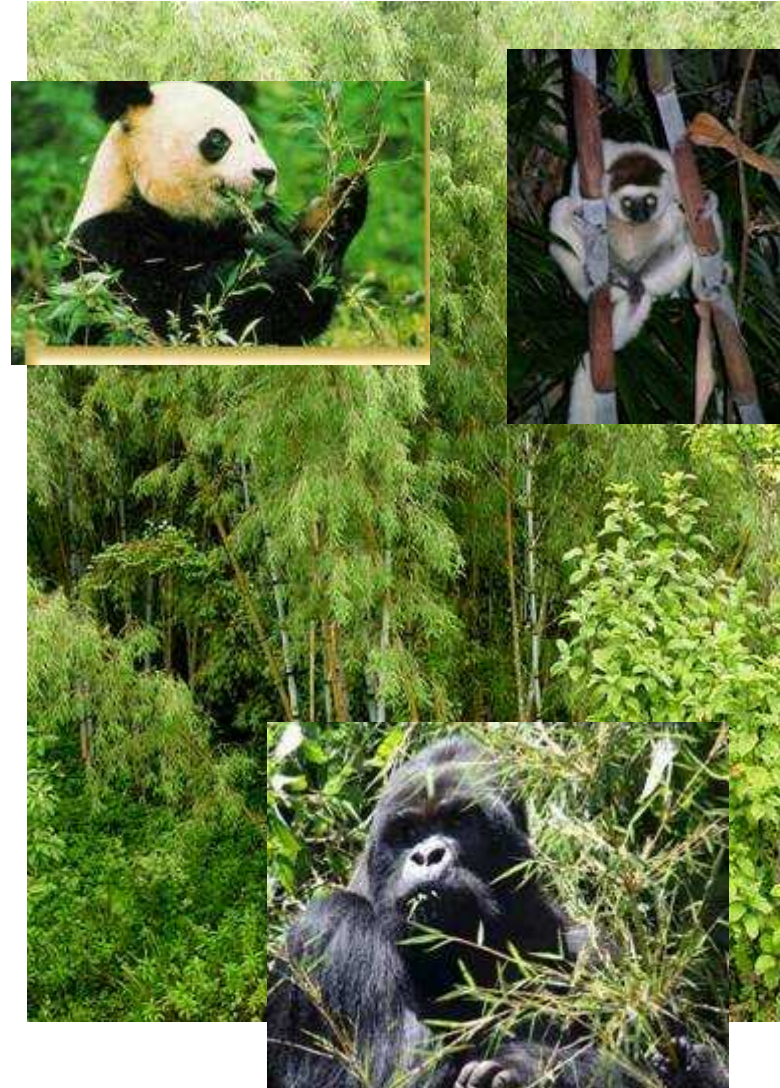






# Biodiversity

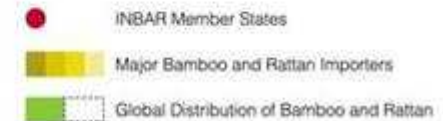
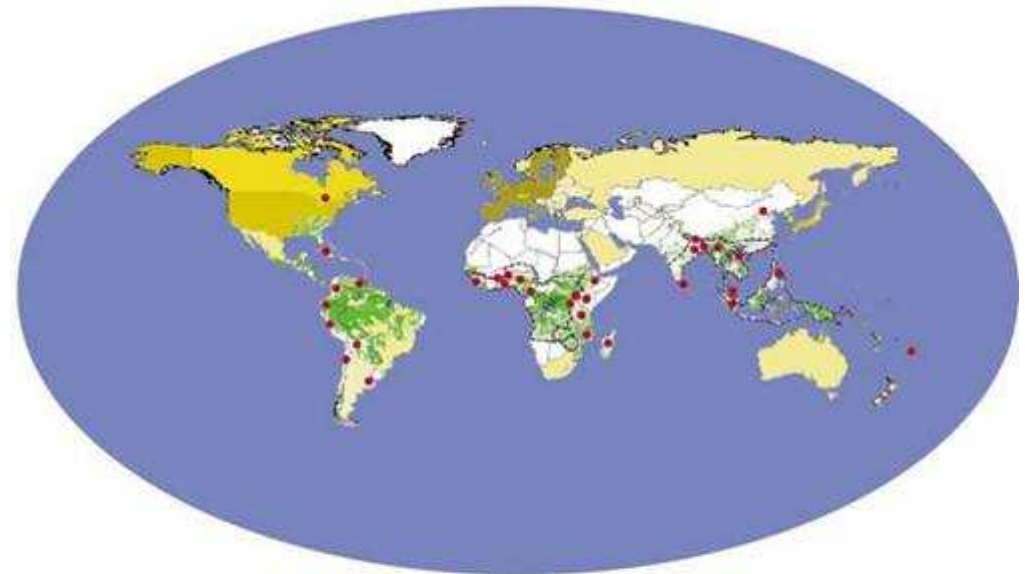
- Bamboo Diversity
- Ecosystem Diversity
- Mammals
- Birds & Reptiles
- Insects & Soil biodiversity





# Sustainable management

- Priority: balance between economy & nature
- Trend: from forest to monoculture
- Threat to:
  - Other Species
  - Ecosystem
  - People's livelihood
  - Planet







# Biodiversity project

- Sichuan, Hunan, Yunnan in China
- Monoculture & endangered species
- => To demonstrate the economic and conservation benefits of a modern form of traditional management systems
  - mixed species stands,
  - restricted but optimized harvest levels
  - certification





# Bamboo & People







# & Others







# ISI 3-fold vision & Bamboo

- Natural resources as the foundation for harmonious co-existence between nature and human society
- Tradition and modern science
- Complex – requires concerted effort => new commons





# Formation, structural and ecological processes

- Study of occurrence of intensive management
- Stimulate modern traditional systems
- Strengthen ecosystem services of bamboo





# Usage and Management

- Study community systems for use
- Modernize policies for harvesting at local and national level to
  - Prevent over harvesting (Qiongzhu)
  - Facilitate income generation







# Bamboo biodiversity & ecosystem services

- Better inventory of genetic resources
- Evaluation of contribution to ecosystems
  - Resilience
  - Carbon sequestration
  - Wildlife





# Cultural Services

- Education
- Recreation
- Inspiration







# Climate Change

- Mitigation – Fixing greenhouse gasses
- Adaptation – Erosion/land degradation
- Development – Income generation

➤ The **MAD** challenge\*

- Holistic approaches & Partnerships DCs

\* J. Schellnhuber (2009)







# Conclusion

- Bamboo *Satoyama* provides multiple services to
  - People
  - Local Ecosystems
  - Environment
- Further development of these functions and services is merited
- + necessary for their preservation and restoration





**INBAR - In Partnership  
for a Better World**

**Thank you for  
your attention**

