



# The role of certification in value chain development

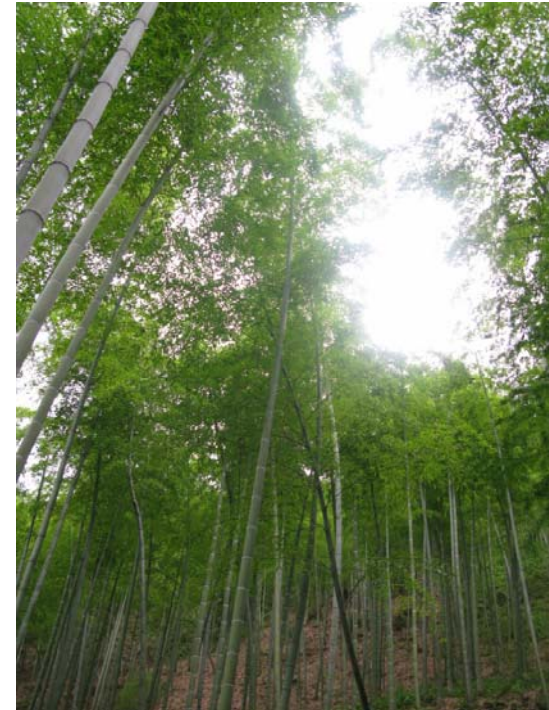


Kathleen Buckingham  
World Bamboo Congress  
12<sup>th</sup> April 2012

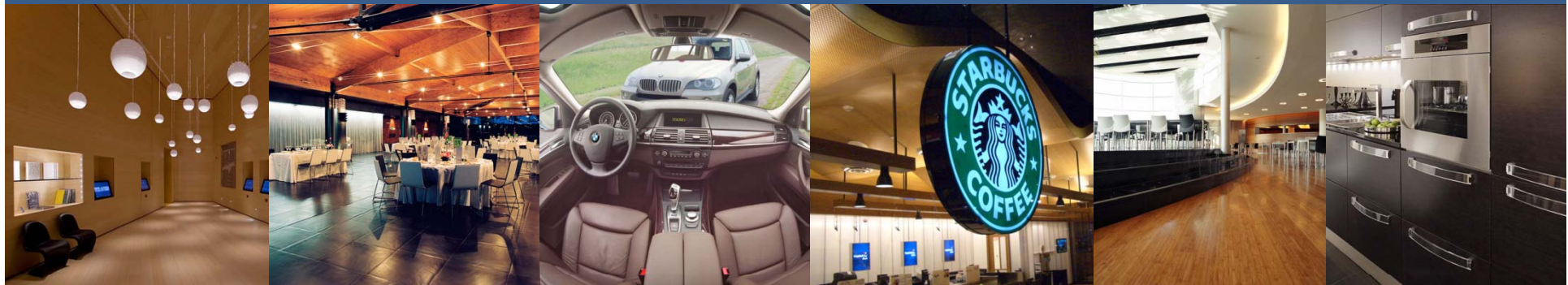
Oxford University  
Department for Geography and the Environment



- Background to value chains
  - Corporate Social Responsibility
  - Value Chains/ Global Production Networks
  - Isomorphism of certification
- The controversy of bamboo certification
  - The case for FSC
  - The case against FSC
- Creating new schemes
  - New schemes
  - The blueprint of success
  - Discussion



## Bamboos entry into global markets

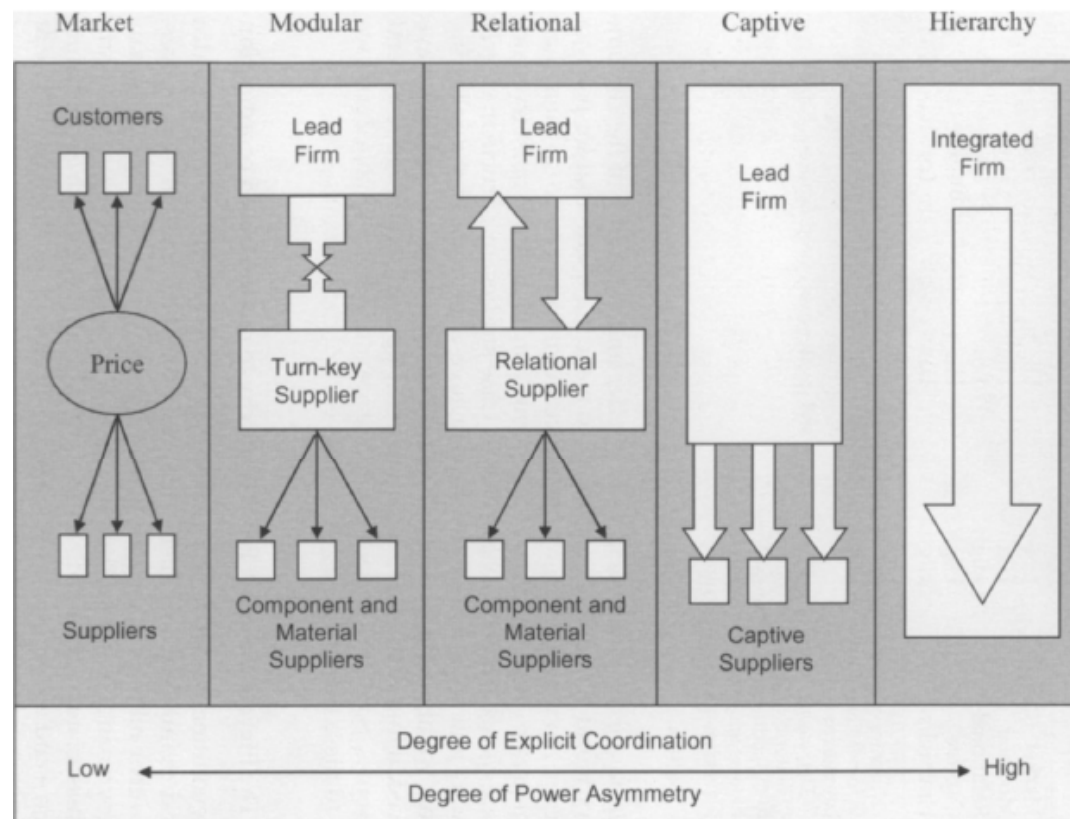


- Many building and construction standards now require FSC certified materials leading to pressure from the construction (Mosobo 2010) and pulp and paper industries.
- The first bamboo (*Guadua angustifolia*) certification scheme was established in Colombia funded by GTZ. The scheme was not sustainable for a number of reasons, primarily due to a lack of capacity building.
- Development of certification for *Bambusa affinis* began in the late 1990s in India.
- China has been the first country to successfully create large FSC management units (FMU) and Chain of Custody (COC), value chain certificates.

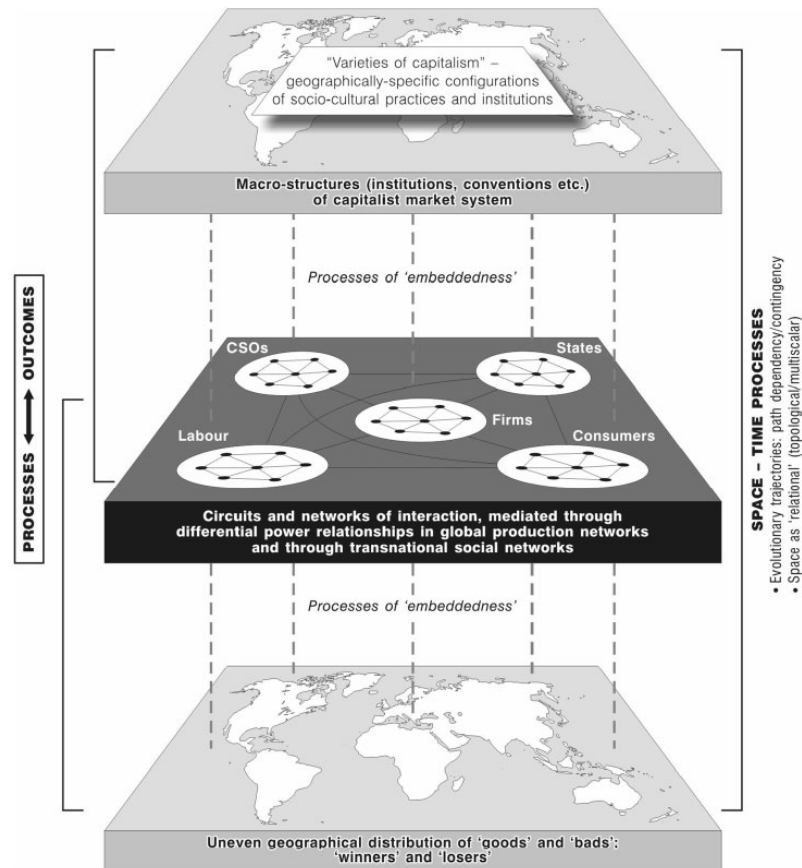




# Value Chains



# The Global Economy: Global Production Networks





- Accountability
- Transparency
- Legitimacy  
(procedural/input)
- Supported by a strong  
network of actors



*Legitimacy is the perception of others that the existence and actions of an organisation are desirable, right and proper within some **socially constructed systems of values, norms and beliefs***

*(paraphrased from Suchman 1995)*

**Western Forest Certification legitimacy is based upon:**

- 1) Non-state market driven mechanism (Cashore 2003)  
(‘supragovernmental’ Meidinger 2010)
- 2) Third Parties (implies independence)
- 3) NGO support (Implies environmental and social expertise)
- 4) Democratic principles (implies participation and contestation)



# The case for Forest Stewardship Council (FSC) bamboo certification

## Forest Stewardship Council (FSC) Principles and Criteria

1. Compliance with laws and FSC Principles
2. Tenure and use rights and responsibilities
3. Indigenous peoples' rights
4. Community relations and worker's rights
5. Benefits from the forest
6. Environmental impact
7. Management plan
8. Monitoring and assessment
9. Maintenance of high conservation value forests
10. Plantations

## Bamboo certification in China

*“As far as I’m concerned, in China bamboo is a type of tree. It is part of the forest. Bamboo has its particular characteristics as tree species do. It is a challenge of fine tuning; the whole system doesn’t need to be overturned.”*

对我来说在中国竹子在中国是树种。是森林的一个部分。他的特性，其他的树种这是一个挑战是以个微调，不是说把所有的东西推翻。

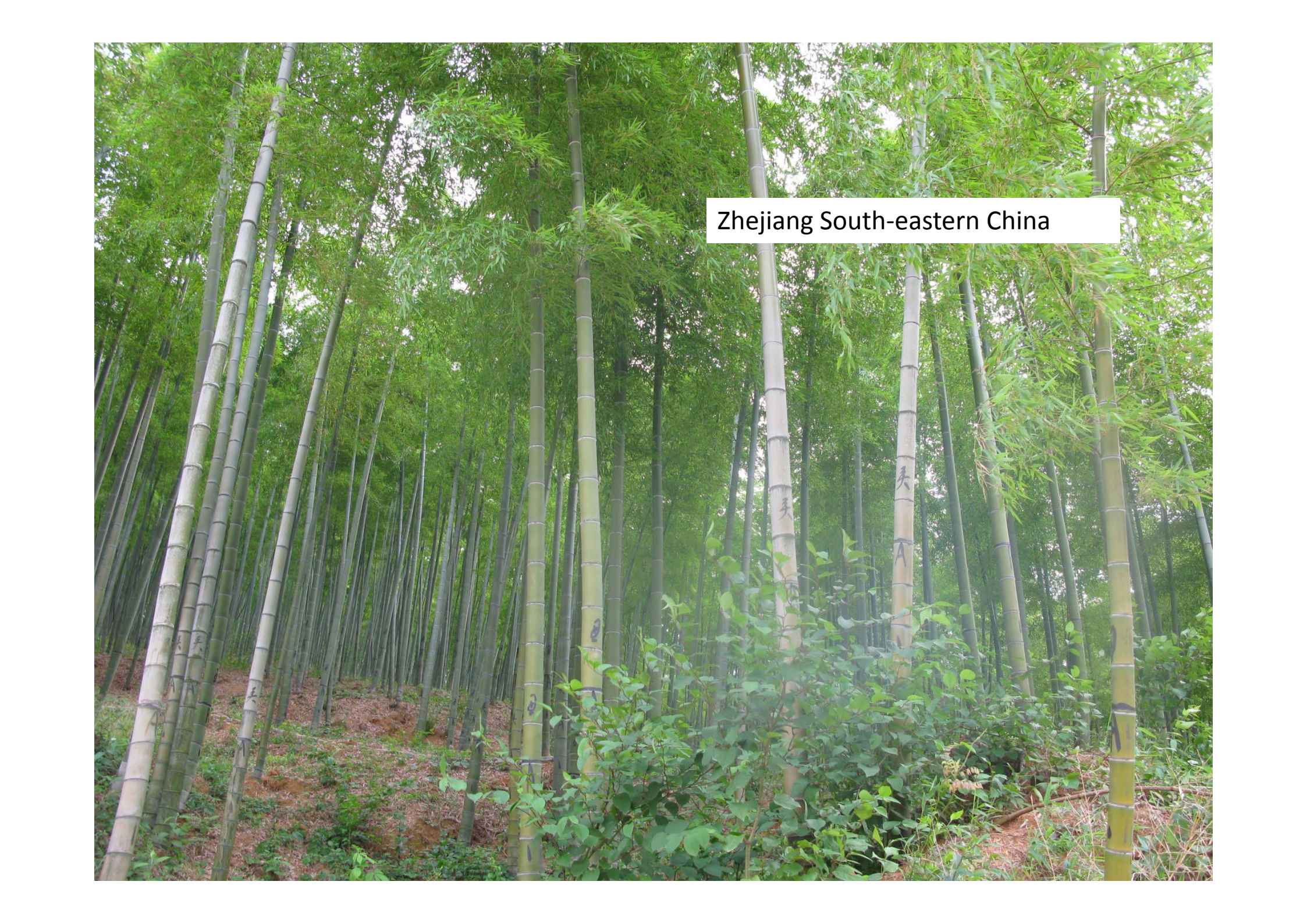
*“Bamboo certification adheres to principles and criteria; the scope of sustainable management is much broader. Bamboo certification is a mode of national development. It is a good thing: it can improve the level of bamboo forestry within China, increase the farmers’ income and international exchange, which will enable China to develop production and other positive elements. The change has been quite significant.”*

不是一模一样的。竹林认证按照原则的标准人们的经营行为的话可特续经营是范围比较一点的话竹林认证是数量可特续经营是国家展方线。是很好的话可以提高中国竹林的水增加老百姓的收入颇大国际的交流，为我们家产品的发展其他比较好的事情...变化一概是比较大的话

- On the surface bamboo management is simple and sustainable, yet further investigation identifies:
  - Issues regarding land tenure
  - Indigenous people's rights
  - Environmental law violations
  - Women are receiving less than the minimum wage







Zhejiang South-eastern China



# The case against Forest Stewardship Council (FSC) bamboo certification



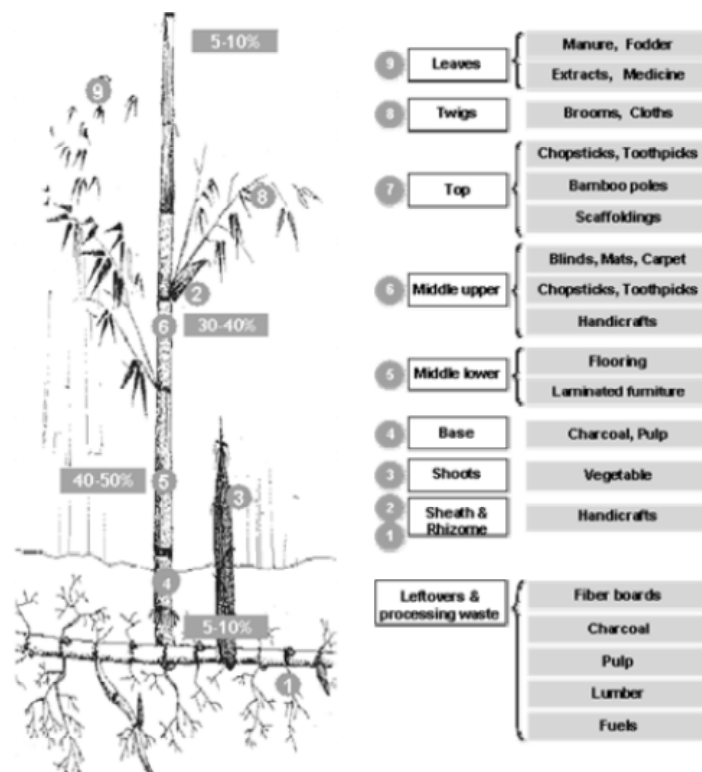
# Bamboos uniqueness

## Some key differences between bamboos and trees (Based on WBO 2011)

Variable	Bamboo	Trees
Growth	Bamboo reaches its final height in 2-4 months	Trees keep growing throughout their whole lifetime
	Growth occurs in one year with a single cylinder	Trees grow wood rings
Rooting structure	Rhizomes serve as the trunk, the culms are the branches off the trunk. Bamboos have three distinct rooting structures: monopodial (diffuse), sympodial (clumping) and amphodial (mixed)	Trees have roots, trunks and branches
Flowering patterns	Bamboos are monocarpic flowering once in cycles. Depending on the species bamboos flower once in 20 or 100 years	Trees that are mature flower and set seed on an annual cycle
Competitiveness characteristics	Can outcompete trees or other plants for access to sunlight, nutrients and water through rhizomes and 'invasive' characteristics	Competes through height in the canopy
Fertility	Many bamboo species are infertile and require vegetative propagation techniques	Trees are fertile
Longevity	Culms can decay after 5-8 years without harvesting. The mother plant tends to die after flowering	Trees can last centuries



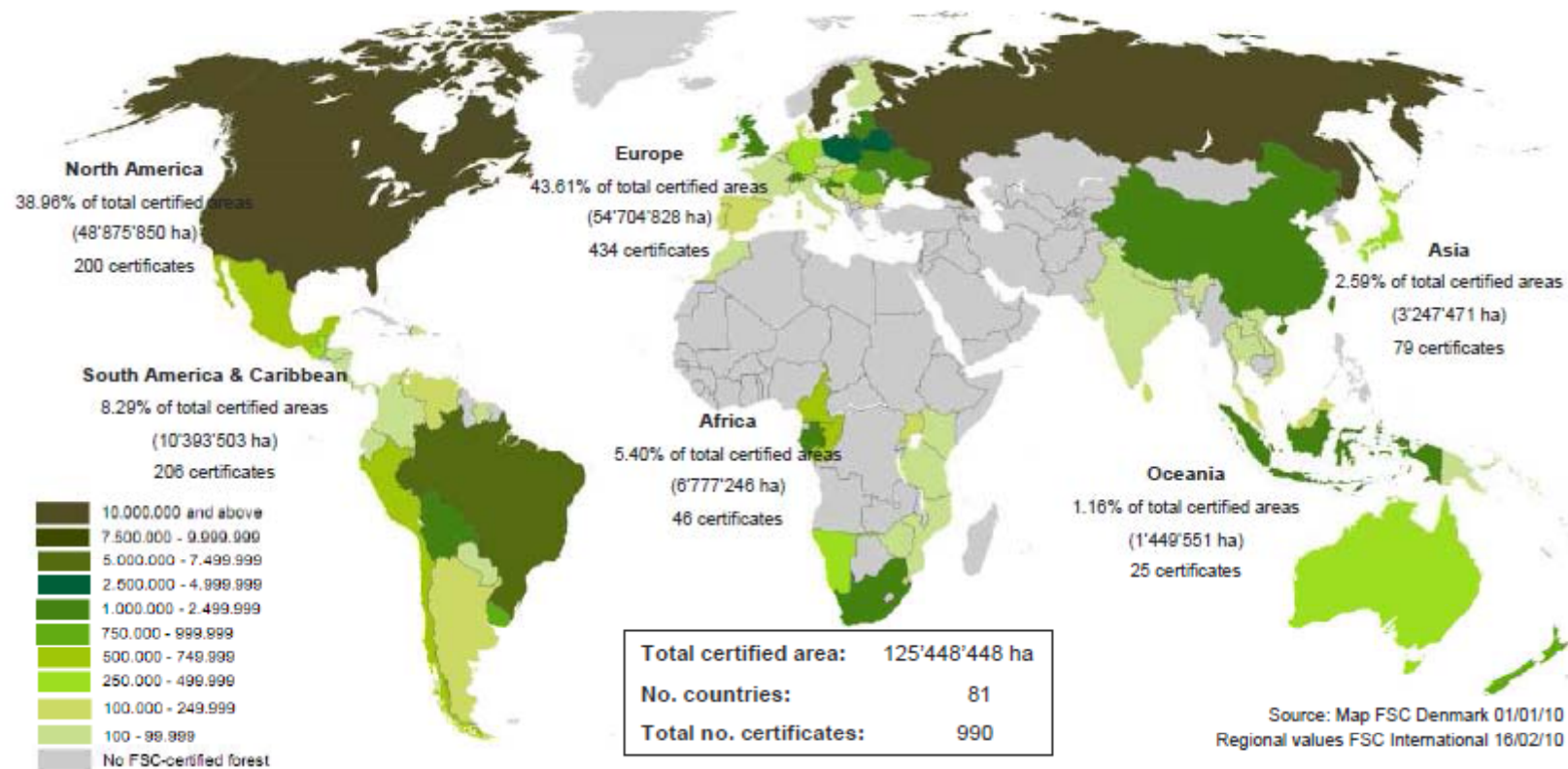
# Bamboos utilisation



## The quote provided by the auditing company In India for bamboo certification

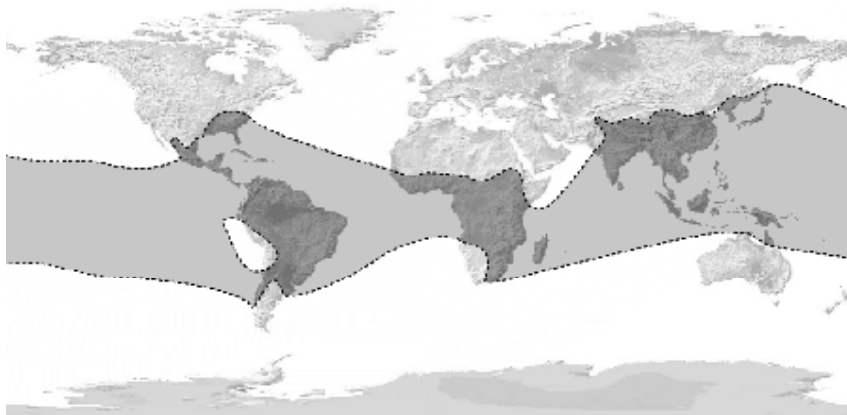
Surveillance	Service	Total
Pre-assessment	Pre-assessment for bamboo certification and orientation on various certification schemes	EU 1,136.40 (Indian Rs 77,210)
Main audit year 1	Audit according to FSC principles and criteria forest area: 15 hectares, 20 farmers	EU 8,045.00
2-5 years	Audit according to FSC principles and criteria, forest area 15 hectares, 20 farmers	EU 2,477.50
Chain of Custody	COC for bamboo processing (including two production sites)	EU 1,152.80
<b>Total</b>	<b>Bamboo FSC pre-assessment and certification and COC for 5 years</b>	<b>EUROS 12,811.70 US\$ 17,348.27 Per hectare: US\$ 1,156.55</b>

Global FSC certified forest area: by region

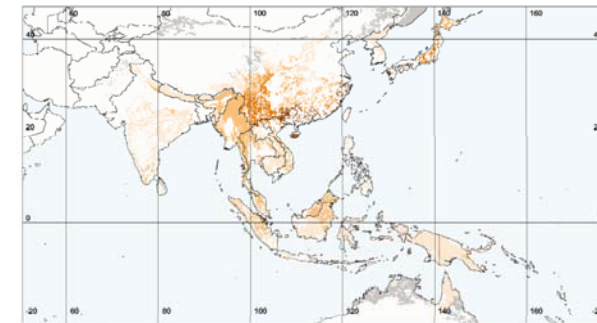




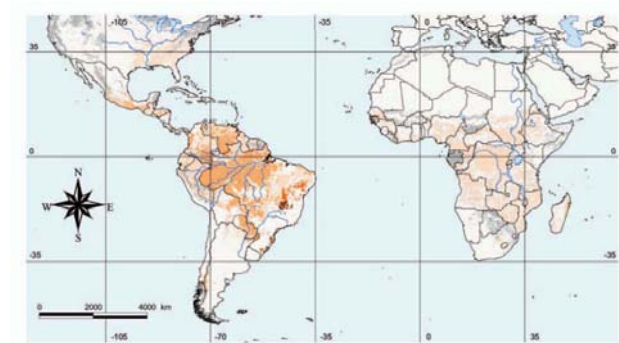
# Bamboo Geographies



Global Bamboo Distribution  
<http://igendesign.wordpress.com>



Map of potential bamboo species richness, derived by integrating all 998 species (UNEP-WCMC/INBAR 2003)



Distribution of potential species richness of woody bamboos derived by combining the distributions of 379 species (UNEP-WCMC/INBAR 2004)

# The creation of other schemes



- The World Bamboo Organisation
- The International Network for Bamboo and Rattan (INBAR)
- Private sector scheme
- PEFC (Programme for Endorsement of Forest Certification Schemes)  
China





Challenges

Yunnan South-western China





# Creating new schemes





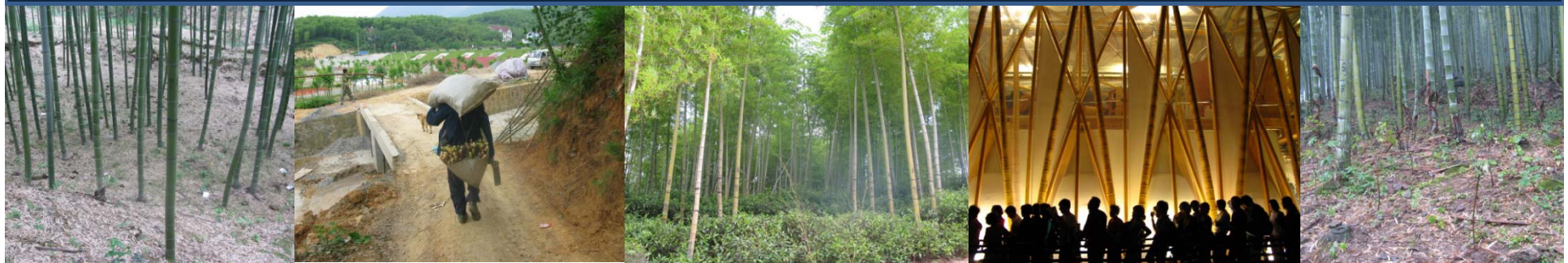
# Creating new schemes



# Creating new schemes

- Aim: to provide a socially, environmentally and economically sustainable value chain
- Allow bamboo to be able to compete in high end markets
- Balancing Input legitimacy (procedural: transparency, inclusion, accountability) and Output legitimacy (effectiveness; efficacy)
- Avoiding proliferation of schemes: harmonisation
- If moving away from the isomorphic (blueprint) model providing an accountable alternative
- Enlisting powerful actors to support the scheme

# Conclusion



- The design of the certification scheme for bamboo is a contested one.
- The fundamental question remains: what is sustainable bamboo management and what mechanisms can be used to ensure the resource is developed adequately to maximise its potential as a relatively new globally commercial natural resource?
- Many countries feel that China cannot act as a model due to having one predominant monopodial species, Moso, which currently dominates the market.
- In emerging tropical and sub-tropical bamboo nations solutions towards finding sympodial bamboo management techniques are needed; however within this market China can still potentially play a key role.
- Research and development needs to allow for the notion of forestry to evolve and for mechanisms to be in place to create a equitable market for bamboo development



Thank you

