



Ministerio de Ambiente, Vivienda y  
Desarrollo Territorial  
República de Colombia

Universidad Distrital  
Francisco José de Caldas



# Sustainable use and conservation of NTFPs in Colombia

International Conference on Sustainable Development of Non-Timber Forest  
Products and Services  
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René López Camacho  
Universidad Distrital Francisco José de Caldas



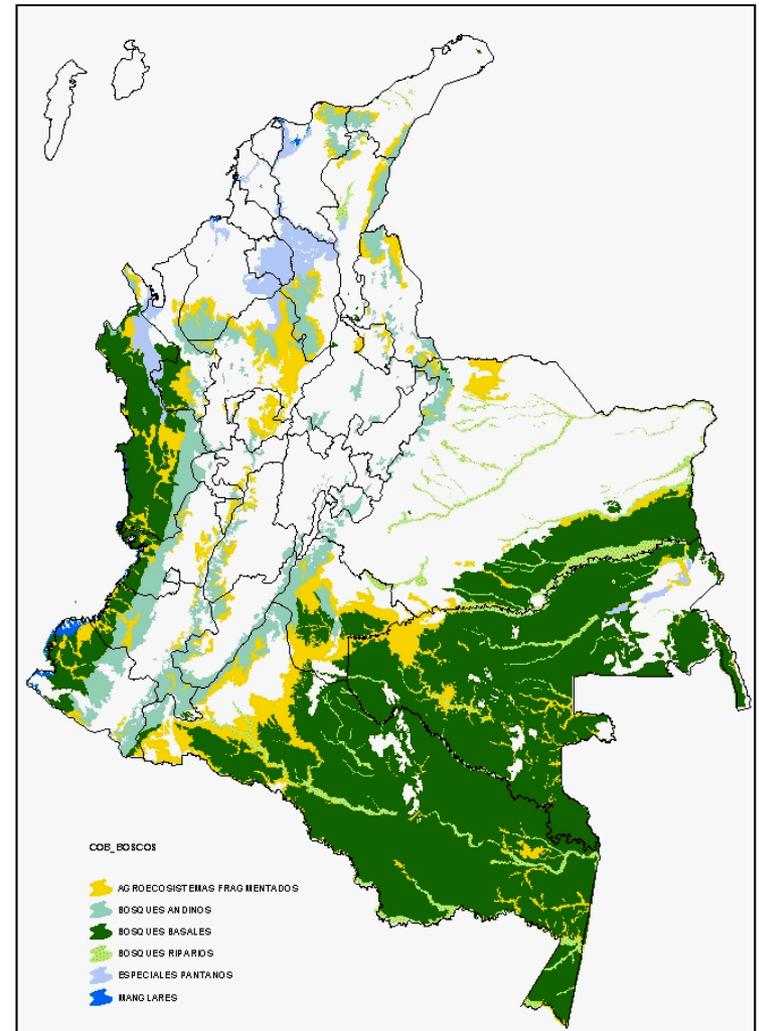


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## GEOGRAPHICAL LOCATION



**Area: 1.142.000 km<sup>2</sup>**



# OBJECTIVES

- ✓ **An approach to the knowledge of the plant species used as NTFPs in two natural regions of Colombia: Andes and Amazonia.**
- ✓ **Identify current or potential uses.**
- ✓ **Collect information about the generation of management protocols and commercialization initiatives.**
- ✓ **Identify gaps in monitoring-related research.**





## **Information sources**

- ✓ Data base of the use and assessment program of the Alexander von Humboldt Institute.
- ✓ Floristic studies related to NTFP (2000 and 2007).
- ✓ Analytical categories: food, handicraft, construction, firewood, medicinal, ornamental, honey-bearing, toxic and industrial.

## **Evaluation of management protocols and biocommerce initiatives**

- ✓ Studies were revisioned by a group of green markets from Ministerio de Ambiente, Vivienda y Desarrollo Territorial (MAVDT).
- ✓ Leader initiatives by Alexander von Humboldt Institute-IAvH, Instituto Amazónico de Investigaciones Científicas (SINCHI) and other organizations.

## NTFPs used by pre-Hispanic cultures



Shaman treatment with tobacco  
smoke



Ornaments



José Celestino Mutis, botanist  
and mathematician



"zarzaparrilla"  
(*Smilax* spp.)



"quina"/ "kina"  
(*Cinchona* spp)

## LATEX



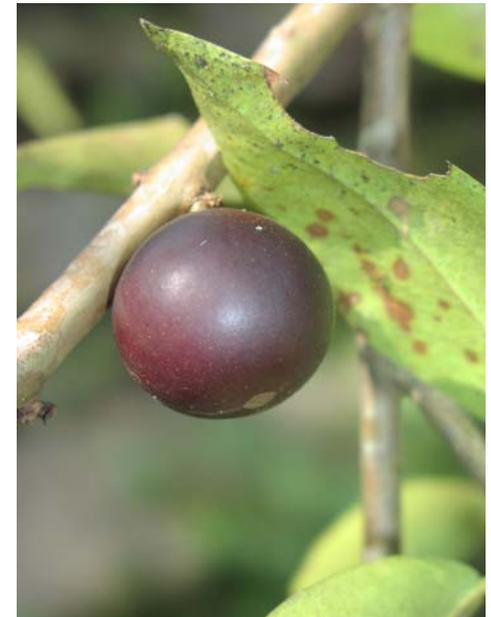
*Couma macrocarpa*  
(Apocynaceae)  
“Juan Soco”

## FIBERS



*Lepidocaryum tenue*  
(Arecaceae)  
“caraná”

## FRUITS



*Myrciaria dubia*  
(Myrtaceae)  
“camu-camu”



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# STUDY AREA



**ANDES**

- 287.720 km<sup>2</sup>
- 77,4 % of Colombia's population
- one of the highest threats to biodiversity (highly populated region)
- altitude: 0-4.500 msl



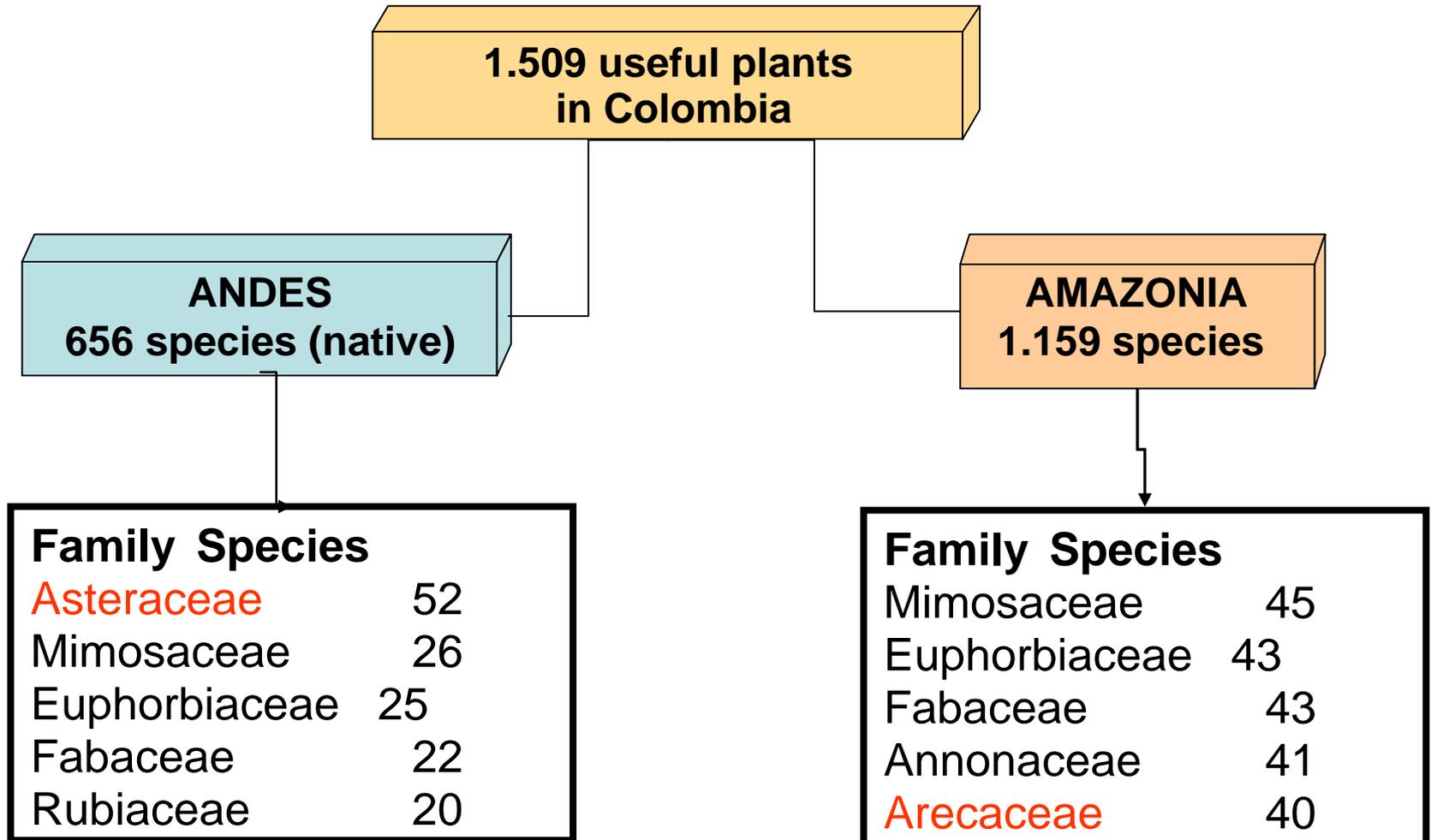
**AMAZONIA**

- 476.505 km<sup>2</sup>
- 2,37 % of the country's population
- lowest threat to biodiversity (sparsely populated region)
- altitude: 0-500 msl

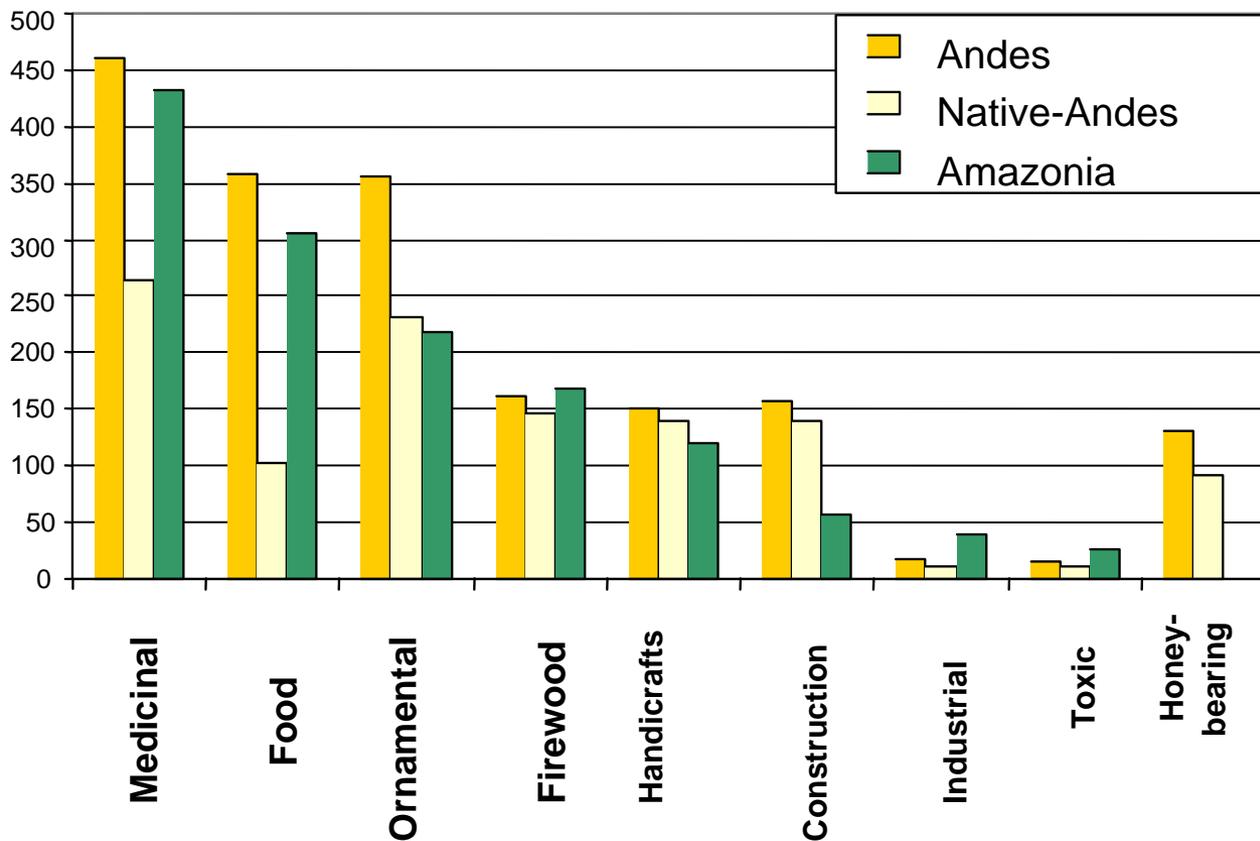




## Current knowledge

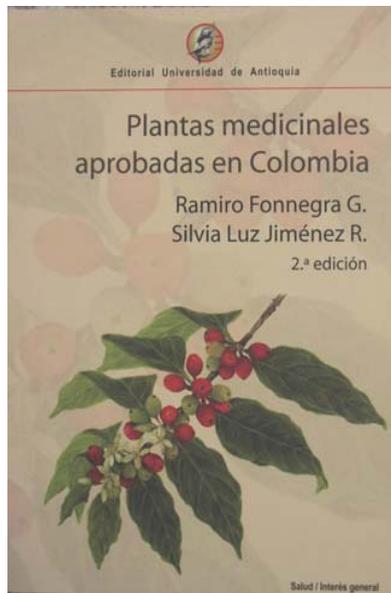


## Species by category



## Medicinal

156 commercialized species  
461 species in Andes (265 natives)  
433 species in Amazonia



*Crescentia cujete*  
*Jacaranda mimosifolia*  
*Solanum nigrum*

## Food

359 species in Andes (265 natives)  
306 species in Amazonia



*Euterpe precatoria*  
*Mauritia flexuosa*  
*Spondias mombin*  
*Vaccinium meridionale*

## Ornamental

231 species in Andes  
219 species in Amazonia



*Heliconiaceae, Araceae,*  
*Marantaceae, Arecaceae*



## Firewood

162 species in Andes

168 species in Amazonia



*Caesalpinia spinosa*

*Dodonea viscosa*

*Clethra fimbriata*

*Aspidosperma* spp.

*Protium* spp.

## Handicrafts

140 species in Andes

119 species in Amazonia



*Bixa orellana*

*Indigofera suffruticosa*

*Genipa americana*

*Carludovica palmata*

## Honey-bearing

131 species in Andes (91  
native)



*Vallea stipularis*

*Lafoensia acuminata*

*Trichanthera gigantea*

*Saurauia scabra*

## Construction

159 species in Andes 57 in  
Amazonia



*Guadua angustifolia*  
*Lepidocaryum tenue*

## Industrial

18 species in Andes 40  
in Amazonia



*Hevea spp.*  
*Ricinus communis*

## Toxic

16 species in Andes  
26 in Amazonia



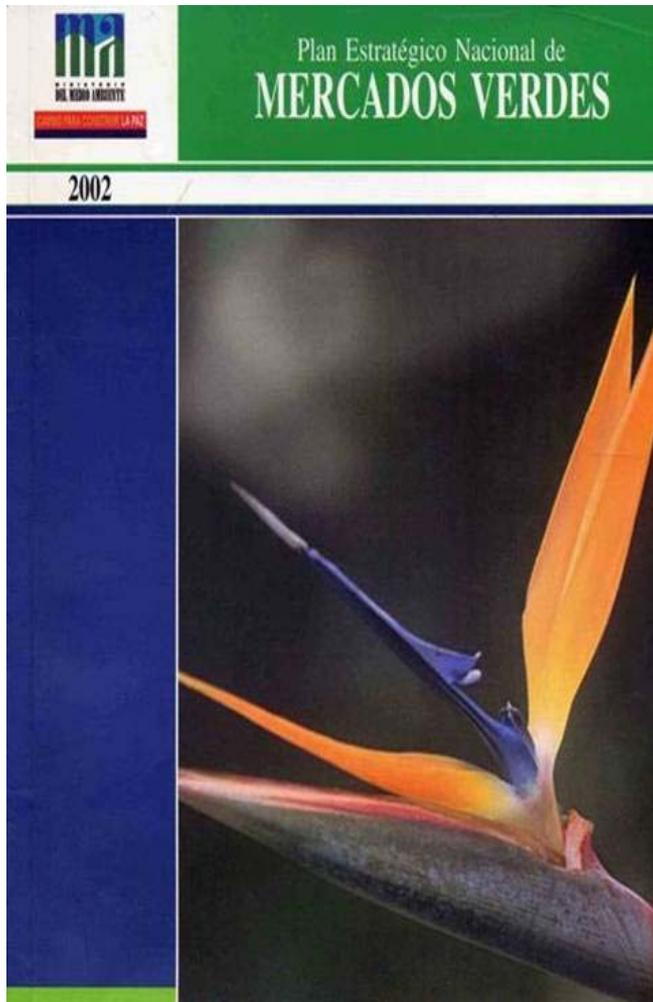
*Curarea tecunarium*  
*Toxicodendron striatum*



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# RESULTS

## Commercialization initiatives



## NATIONAL STRATEGIC PLAN FOR GREEN MARKETING

### GOALS

**Consolidate the production of environmentally sustainable goods and increase the supply of competitive ecological services in national and international markets in order to contribute to environmental quality and social comfort improvement.**



## Green Markets: Categories

↓  
**Clean  
production  
mechanisms  
MDL**

↓  
**Environmental  
services**

↓  
**Industrial  
ecoproducts**

↓  
**Sustainable advantages  
of natural resources**

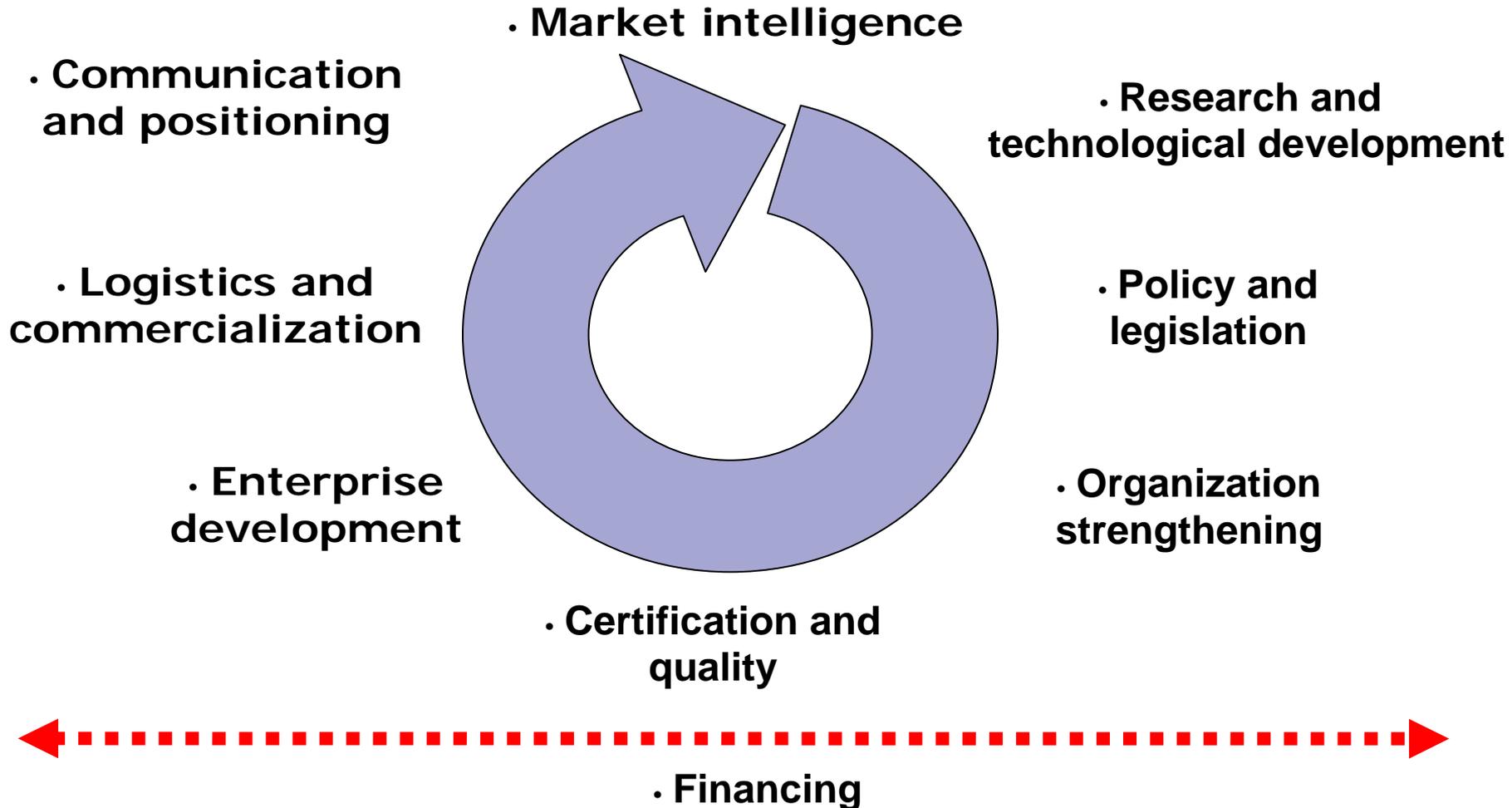


**Biocommerce  
initiatives**

**Technical focus**



# STRATEGIC AREAS





**Sustainable advantage of  
the natural resources**

- essential oils
- rubbers and resins
- colourants
- flowers and foliage
- exotic fruits
- fauna
- medicinal plants



In 2006 Colombia produced 0,05% (US\$307 million) of the worldwide exports in biocommerce market

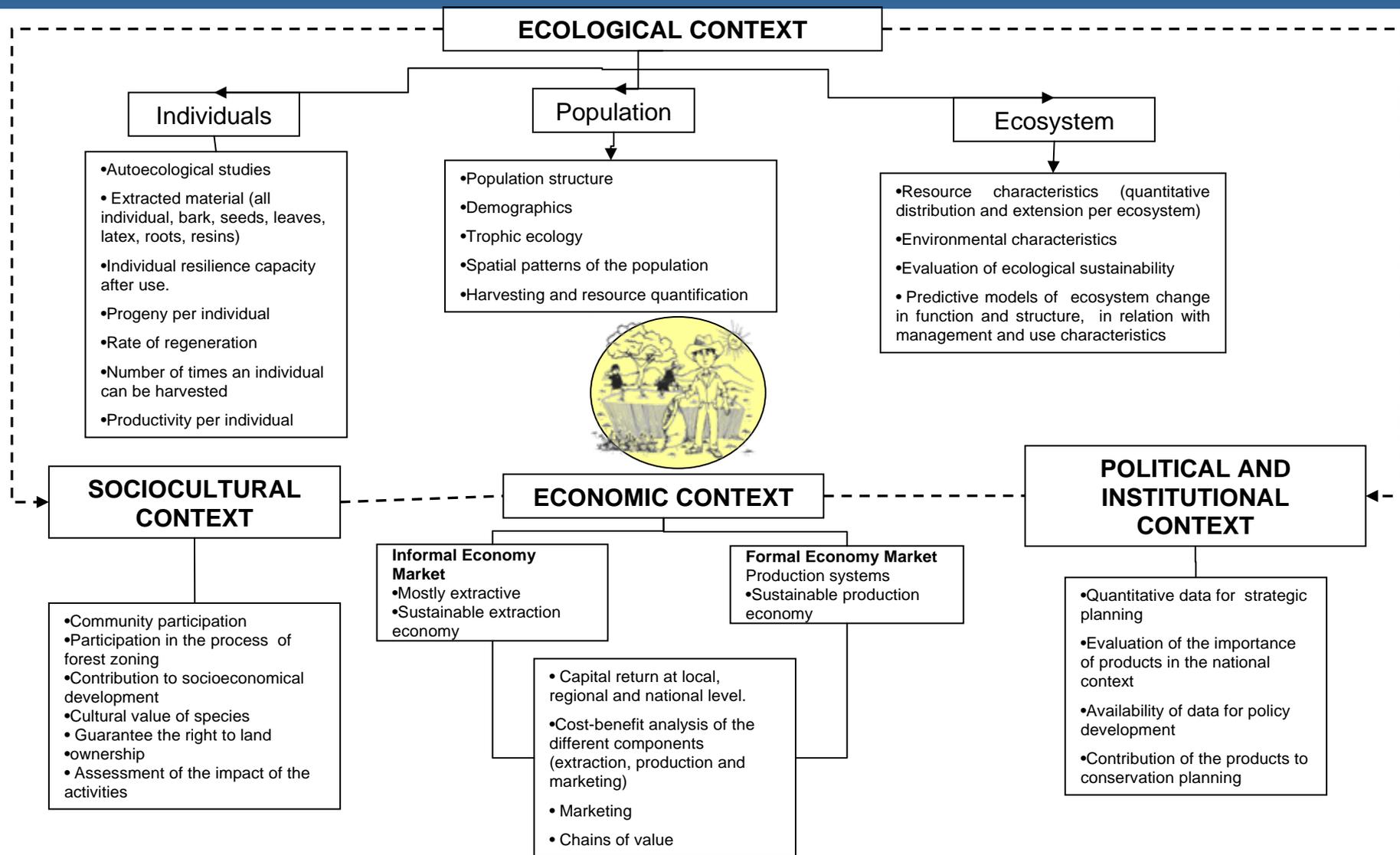
2003..... 530 biocommerce companies  
2007..... 1.300 registered companies



## Research guidelines

- Scientifically based specifications to guarantee careful resource management without overexploitation and to give economical advantages to the local population
- Development of protocols and data bases on harvest management
- Incorporation of **NTFP** in agroforestry and restoration programs.
- Structuring of markets and value chains
- Definition of harvesting stocks by environmental authorities





# CONCLUSIONS

- Lack of information about the ecology of non-timber species is one of the biggest drawbacks when managing these resources.
- It is necessary to support research in the ecological, social, cultural, political and institutional contexts.
- Consolidation of participation processes between state and rural communities: forestry planning programs, agroforestry systems and restoration practices





# CONCLUSIONS

- Programs to raise consumer awareness about origin protection, domination and product differentiation.
- Market niches for nutraceuticals, cosmeceutics, energizing products (*Paullinia cupana*, *Maytenus laevis*) or oil (*Plukenetia volubilis*) provide good opportunities.
- New market strategies and technological innovations: processes of international cooperation with other Amazon countries

# THANK YOU



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