



International Conference on Sustainable Development of Non-Timber Forest Products and Services

International Bamboo and Rattan Tower, Beijing, China September 2007

NTFP and Sustainable Development in Amazon

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- 1. The ITTO project PD 31/99: concept, execution and products*
- 2. Project results and conclusions: native rubber and Amazon, two linked histories*
- 3. The Amazonian NTFP*
- 4. Social and economical aspects of NT production*
- 5. Forest extractivism and sustainability: a theoretical approach*
- 6. NT production and Amazonian sustainability: some possibilities*

The ITTO project PD 31/99 conception for an integral work

- Block 1: the knowledge on socioeconomic matters
- Block 2: the surveying, getting and organization of the scientific and technological data
- Block 3: the development and diffusion of technology for production and processing of specific NT species

The results

1. The main databases on production, trade and exports of Amazonian NTFP
2. One analysis of the data by species
3. Six videos on the production of main NTFP
4. One of the best encyclopaedias on Amazonian useful species with 500 species
5. One book on 60 species for cosmetic production
6. One extraction system for cumaru seeds
7. One technological criticism for the copaiba oil production chain

Some of the results

- Objetivo Específico 1:
-
- <http://www.tabinternet.com.br/lateq/html/apresentacao.html>
-
- Objetivo Específico 2:
-
- <http://www.unb.br/iq/lateq/floramazonica/>
-
- Lateq nonwood06

“The Amazonian Flora - 500 species for non-timber production”
Volume 1 - Portuguese

Flora amazônica:

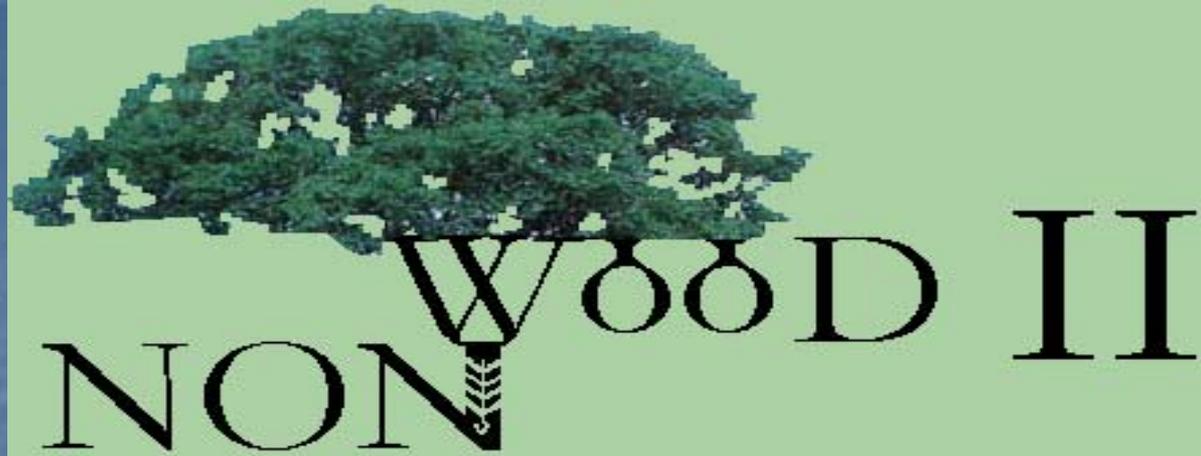
100 espécies de extrativismo não-madeireiro

- Cover



Mary Naves da Silva Rios
Elisa Sukanunna
Carla Azevedo dos Santos Viana
Cláudia da Veiga Jardim
Gracierra Rangel Pinagé
Artur Orelli





**Produção Não-Madeireira e
Desenvolvimento Sustentável na
Amazônia** (ITTO - PD 31/99 Ver. 3 (I))

Floriano Pastore Júnior
Thaise Rachel Sarmiento
Dimas V. Sabioni Resck

**Levantamento sócio-econômico e
tecnológico**



Projeto ITTO PD 31/99 "Non-wood II" apresenta

Direção:
Péterson Paim



"Os Aventureiros
dos Buritis"



O curta retrata as dificuldades de pessoas que se arriscam para ganhar o pão de cada dia, coletando o fruto do buriti e processando a poupa para a extração do óleo...



FLORA AMAZÔNICA PARA USO COSMÉTICO

*Extrativismo Não-Madeireiros e o
Desenvolvimento Sustentável na Amazônia
- Projeto ITTO PD 31/99 Rev. 3 (I) -*



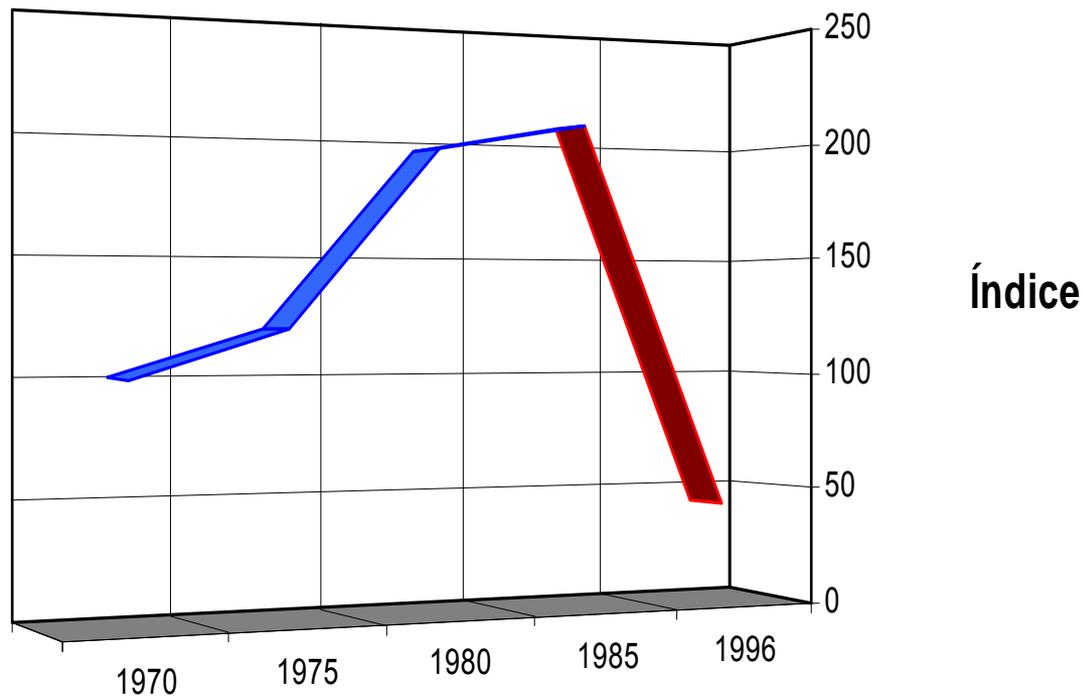
*Floriano Pastore Jr.
Eric C. Fernandes Vanessa F. Araújo
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Andrea Camila Petry Vinicius G. de Andrade*



NTFP extractivism in Amazon

(All Agriculture Census – IBGE)

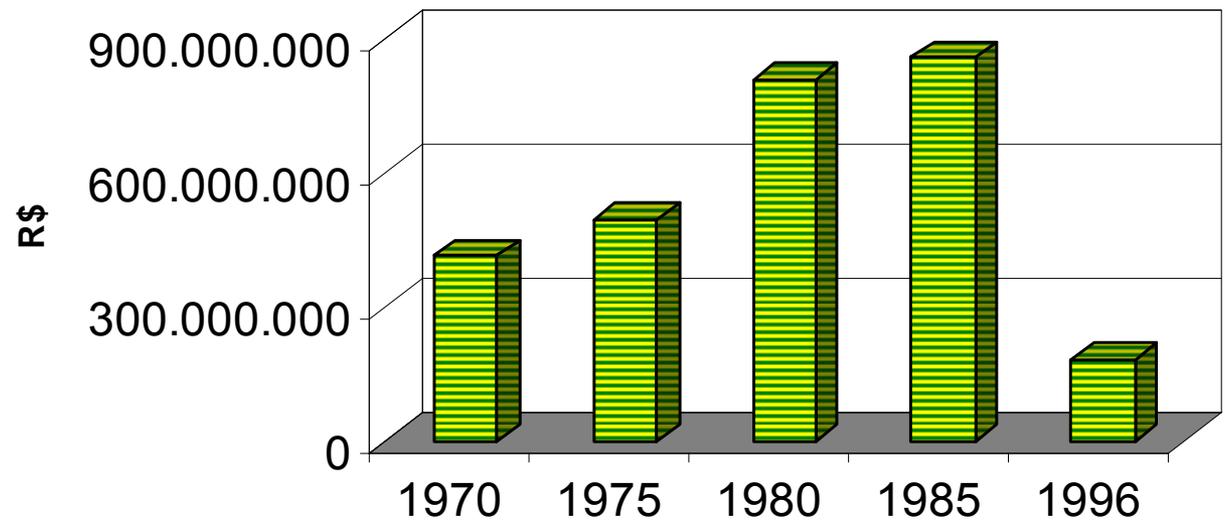
Comportamento Econômico do Extrativismo na Amazônia Legal



Source: Project ITTO 39/99 Ver. 3 (I): NTF Production and Sustainable Development in Amazon

NTFP - Total Value

Amazon Extrativism Total Value



Source: Agriculture Census, IBGE – ITTO PD 31/99



Brazilian Forest Extractive Production (2005 - IBGE)

- Wood and timber forest products:
 - US\$ 1.492.147.470 ~ US\$ 1.5 billion
- Non-Timber forest products:
 - US\$ 256.882.323 ~ US\$ 257 million



Amazonian extractive exports value (2000 - SECEX)

- Timber forest products: US\$ 468.039.554 ~ US\$ 470 million

- NTFP: US\$ 43.621.842 ~ US\$ 44 million

- Fishing : US\$ 29.353.648 ~ US\$ 29 million

◆ TOTAL: US\$ 541.015.044 ~ US\$ 541 million

The Non-Wood Products Surveied

Censo Agropecuário

- 1- açai
- 2-andiroba
- 3-babaçu (amêndoa)
- 4-babaçu (coco)
- 5-bacuri
- 6-balata
- 7-borracha coagulada
- 8-borracha líquida
- 9-buriti (coco)
- 10-buriti (palha)
- 11-caroá
- 12-castanha-do-pará
- 13-caucho
- 14-copaíba
- 15-coquirana
- 16-cupuaçu
- 17-fibras (em geral)
- 18-ipecacuanha
- 19-jaborandi
- 20-malva
- 21-palmito
- 22-piaçava
- 23-pupunha
- 24-sorva
- 25-timbó
- 26-tucum (coco)
- 27-ucuúba

Produção da Extração Vegetal e da Silvicultura

- 1-açai
- 2-andiroba
- 3-babaçu (amêndoa)
- 4-balata
- 5-borracha coagulada
- 6-borracha líquida
- 7-buriti (fibra)
- 8-castanha-do-pará
- 9-caucho
- 10-copaíba
- 11-coquirana
- 12-cumarú
- 13-guaraná
- 14-guaxima
- 15-ipecacuanha
- 16-jaborandi
- 17-jatobá (resina)
- 18-maçaranduba
- 19-malva
- 20-mangue
- 21-maniçoba
- 22-murumuru
- 23-palmito
- 24-piaçava
- 25-rosadinha
- 26-sorva
- 27-timbó
- 28-tucum (amêndoa)
- 29-ucuúba



Main NT Products and the lack of market

- Rubber: 6.000t/ano = 10.000 families (20.000 do not work for lack of market)
- BRAZIL NUTS: 17.000t/ano = 17.000 families (13.000 more, waiting for market)
- ASSAÍ (fruits): 180.000t/ano = 30.000 families
- OTHERS: balata, piaçaba, ervas medicinais, pau rosa, bacaba, muricí, bacurí, buriti, palha, cipó – 20.000 families

(Agricultural Census - IBGE (1996))

Amazon Region - Population

UF	POPULAÇÃO TOTAL	POPULAÇÃO RURAL	POPULAÇÃO EXTRATIVISTA	
			N.º	%
ACRE	483.483	185.237	120.600	25,00
AMAPÁ	373.994	68.700	38450	9,50
AMAZONAS	2.390.102	771.306	317.750	13,30
MATO GROSSO	2.227.983	547.800	12.500	0,55
PARÁ	5.522.783	2.481.600	255.560	4,63
RONDÔNIA	1.221.290	483.742	181.800	14,88
RORAIMA	247.724	91.711	3.150	1,28
TOCANTIS	1.048.514	417.629	21.150	2,21
TOTAL	13515873	5047725	950960	7,00

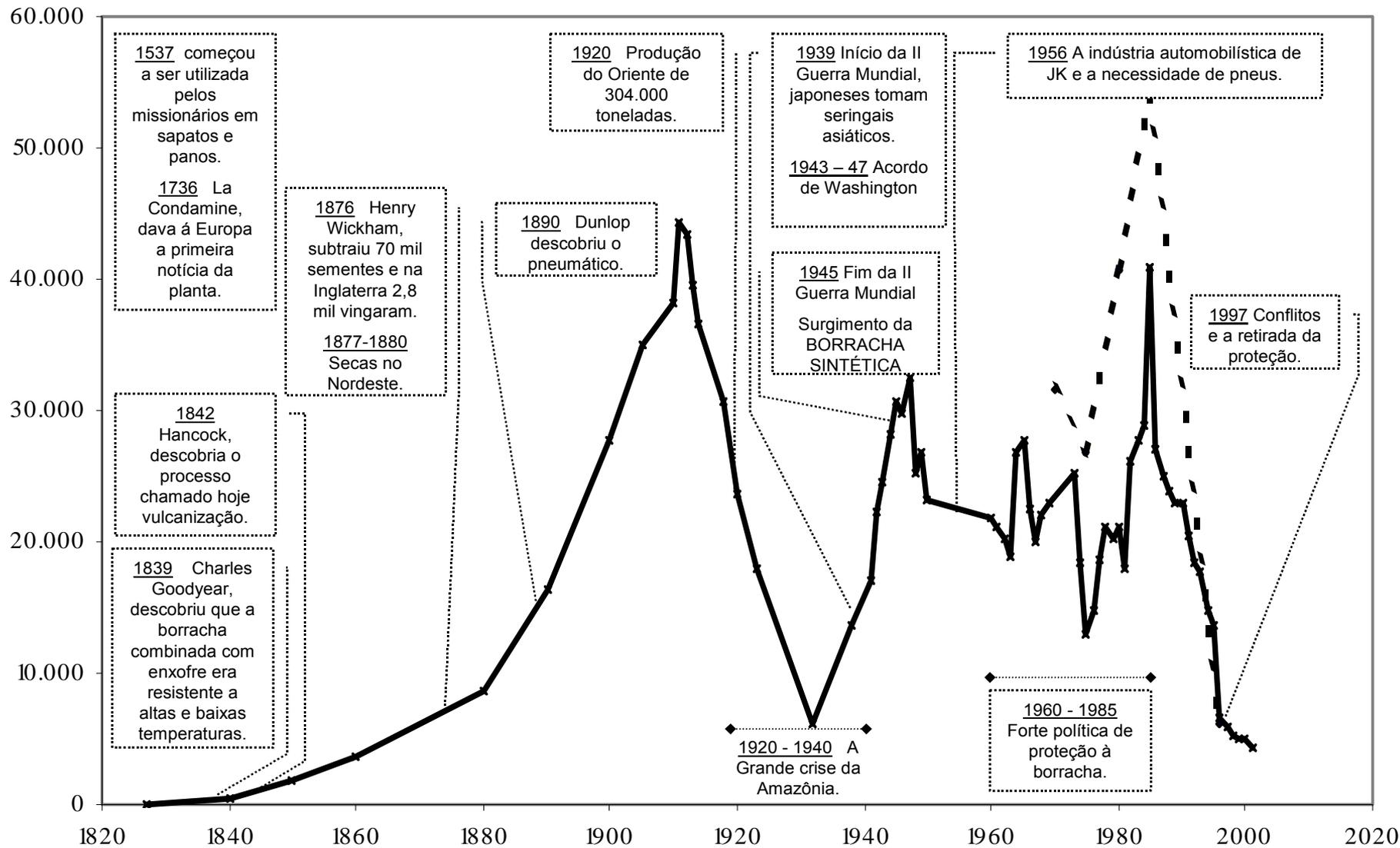
Data: Demographic Census IBGE (2000)

Coming now to the title of the project:
NTFP & Sustainable Development in Amazon
What can we conclude ?

One main and first interesting conclusion:

- Amazon history is interlinked with the most important NTFP already extracted in Amazon: natural rubber
- What happened to rubber reflected strongly into the forest. Three periods are identified

Histórico do extrativismo de borracha coagulada na Amazônia



— x — 1827-1940 Fonte: SUDHEVEA

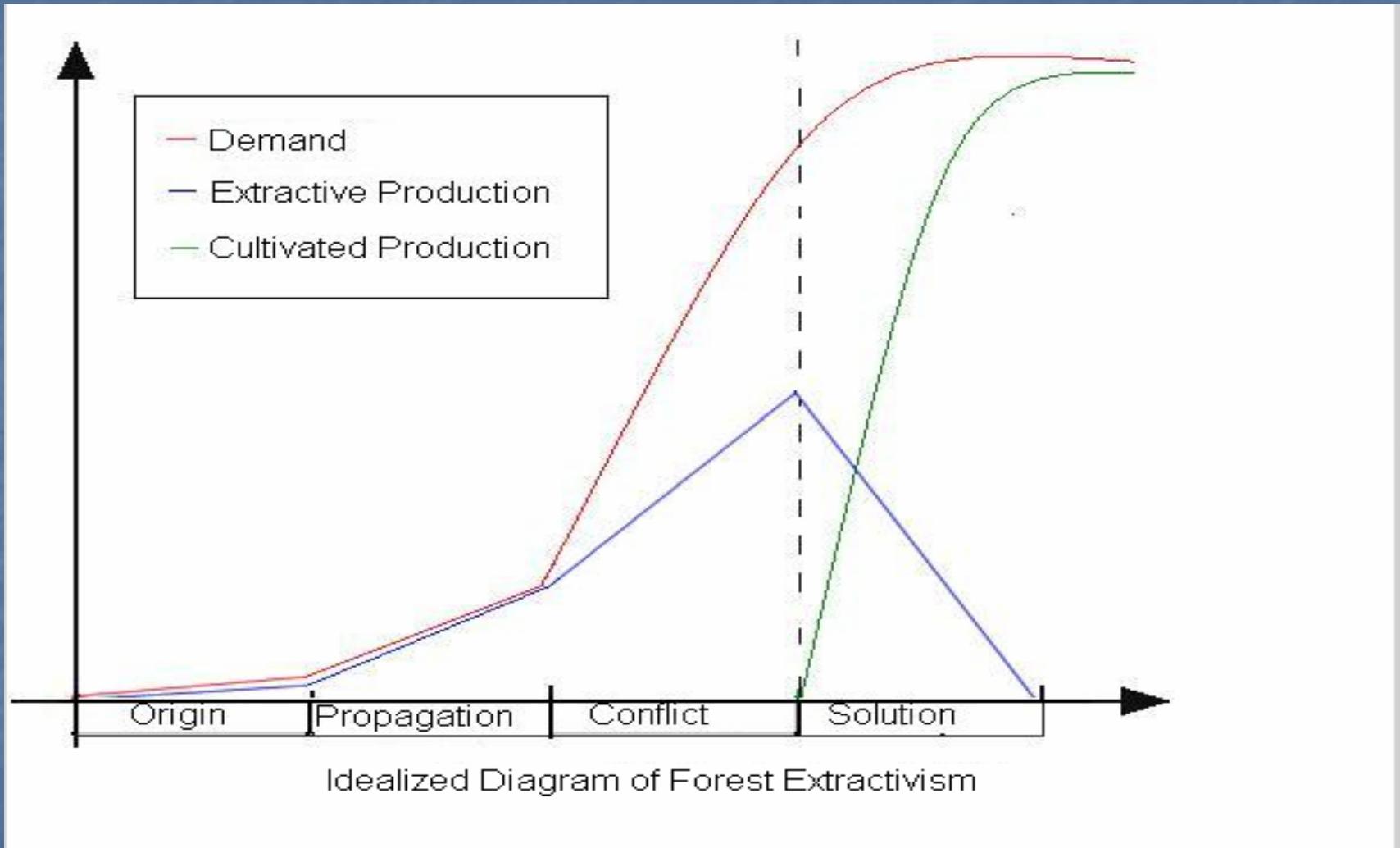
— x — 1942-1950 Fonte: BCA

— x — 1960-1969 Fonte: Sup. da Borracha

— x — 1973-2001 Fonte: PEVS

- - x - - 1970-1996 Fonte: CA

Idealized diagram for the forest extractivism



Characteristic features of the NTFP extractivist production

- Low productivity,
- Low added value,
- Low management capacity
- Poor and irregular quality,
- Uncertain offer,
- Market very irregular,
- Most of the time, the production is not profitable and does not allow capital accumulation; it is for subsistence

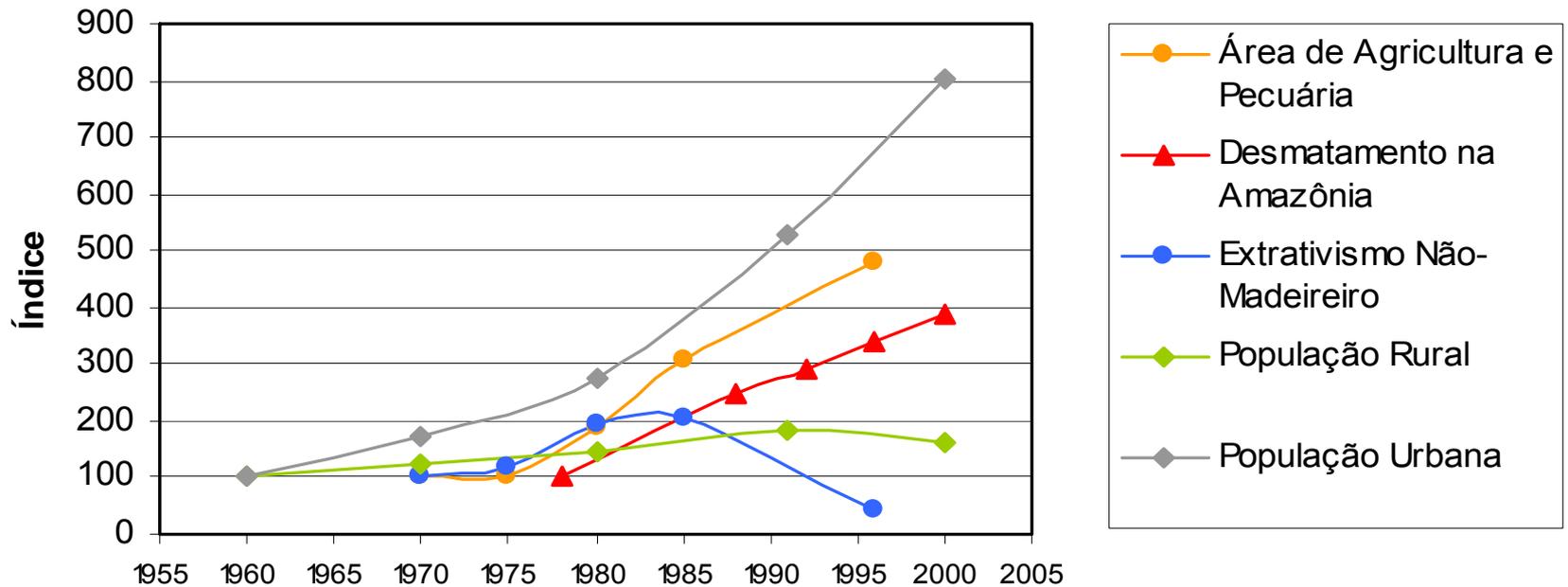
- As a general conclusion: the NTFP extractivism way of production is not sustainable
- For economic reasons it should be over, but
- The new age: the focus on the forest ...and on the communities

The Amazonian NTF producer, the extractivist, is more than important:

- He is the guardian of a piece of forest
- He expands our general knowledge and the ethnobotanic selection from nature
- He is the keeper of his own cultural treasure
- **This bucolic image is not always true → without rent and job he can be a normal nature damager**

The intrinsic relationships in Amazon

NTF production and forest change in Amazon



Sources: IBGE and INPE (UnB/ITTO Project.)

Some conclusions and a great question

- NTFP are important for the Amazonian possibility of sustainable development as an integral process
- As a general rule, NTF production is not sustainable
- **What to do ?**

Some possibilities

- **OILS**: the example of the Company Natura → diluting the non profitable part into the down stream (verticalized) process
- **RUBBER**: a very strong public policy → compensating the native product non competitiveness →
 - US\$ 1 per kg = 1 protected hectare
 - A complete project could be
 - 20 million US\$
 - 20,000 tons of rubber = 10% of Brazilian imports
 - 20,000 ha of protected forest
 - 40,000 protected families
- **BABASSU**: extremely dense forest, can be an exception to the rule → 10 million ha + 300,000 families, but needs strong public measures and action for an integral production
 - with actual extractive production = 2 million tons of fruit
 - 300,000 tons of fiber + 400,000 tons of starch for human food + 1,18 million tons of charcoal + 66,000 tons of oil and 54,000 tons as feedstock

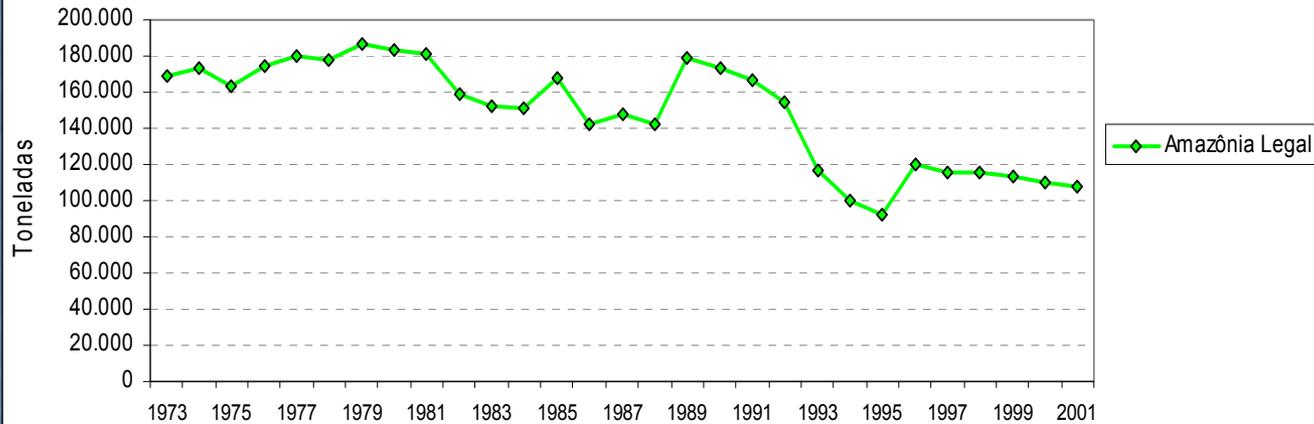


Many
thanks !

Babassu

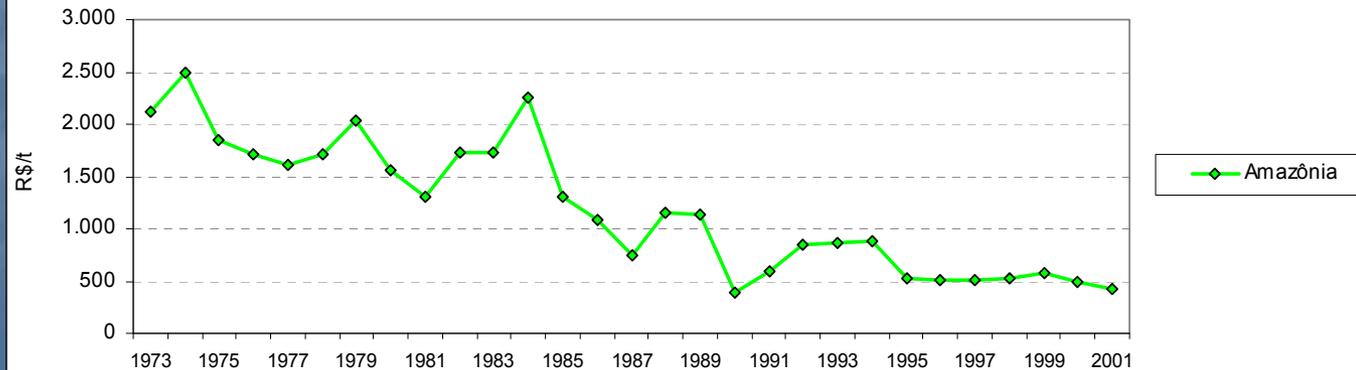


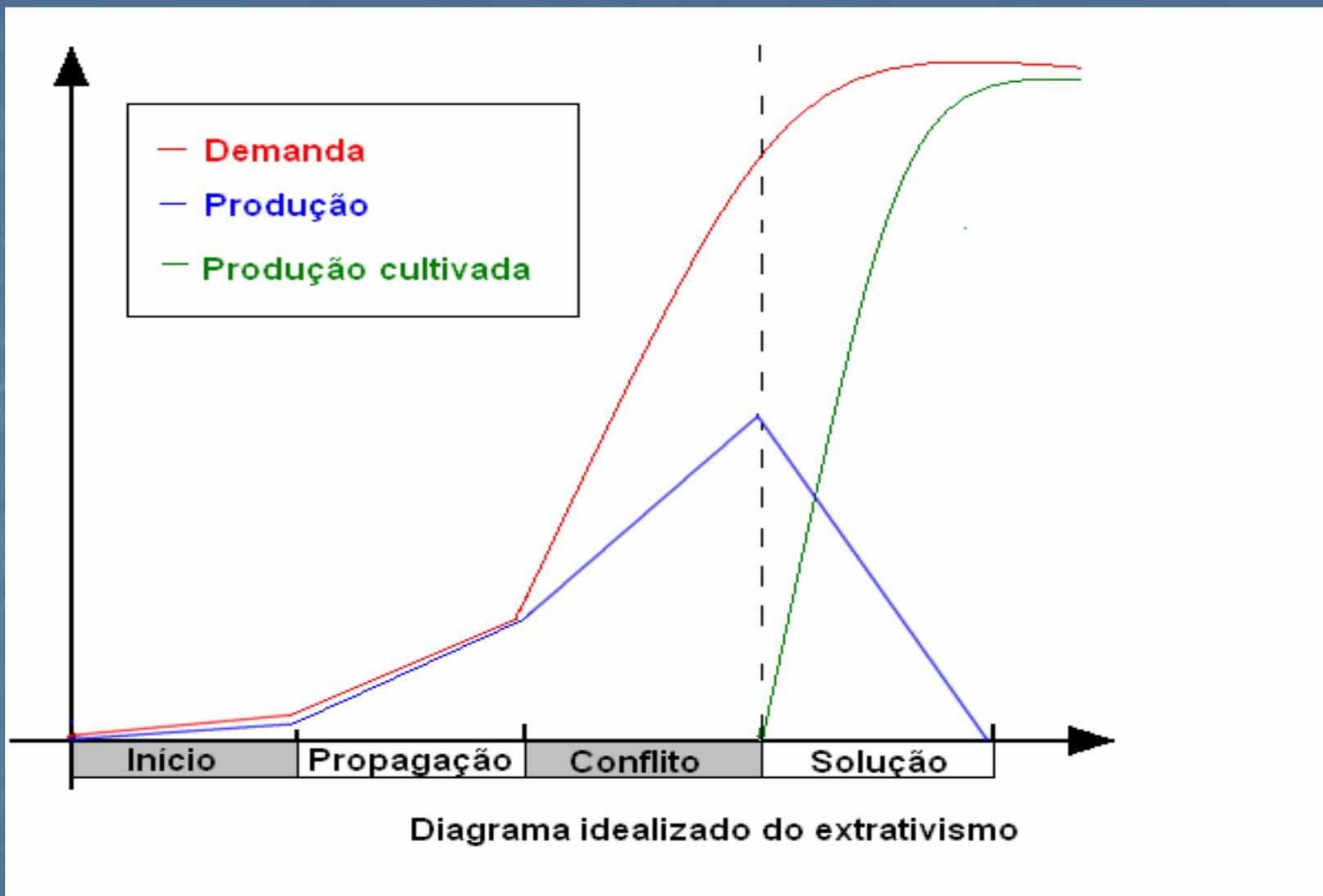
Dinâmica da Quantidade de Amêndoa de Babaçu Produzida na Amazônia Legal



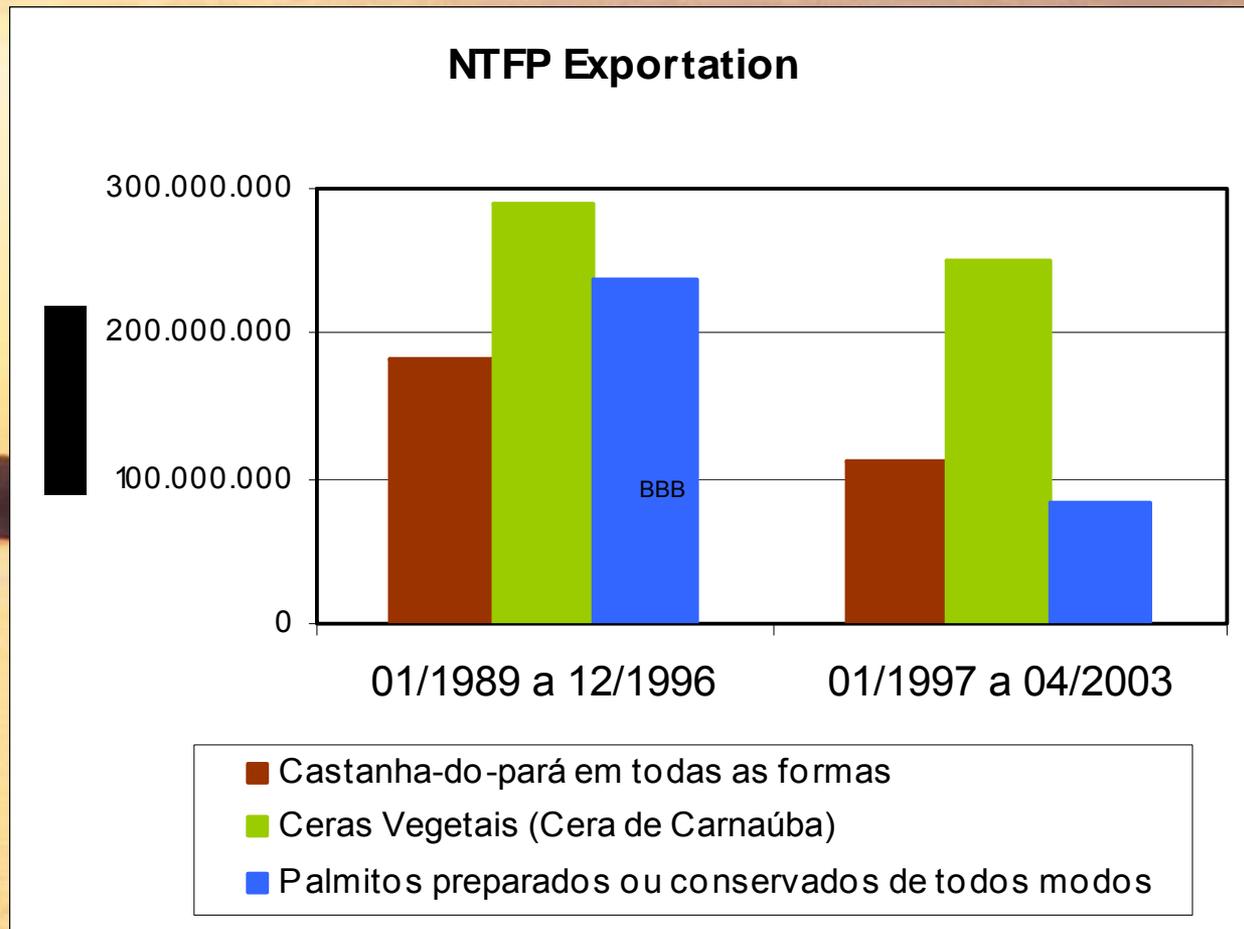
119,031 tons of almonds were collected in 2005

Dinâmica do Preço da Tonelada de Amêndoa de Babaçu Produzida na Amazônia Legal

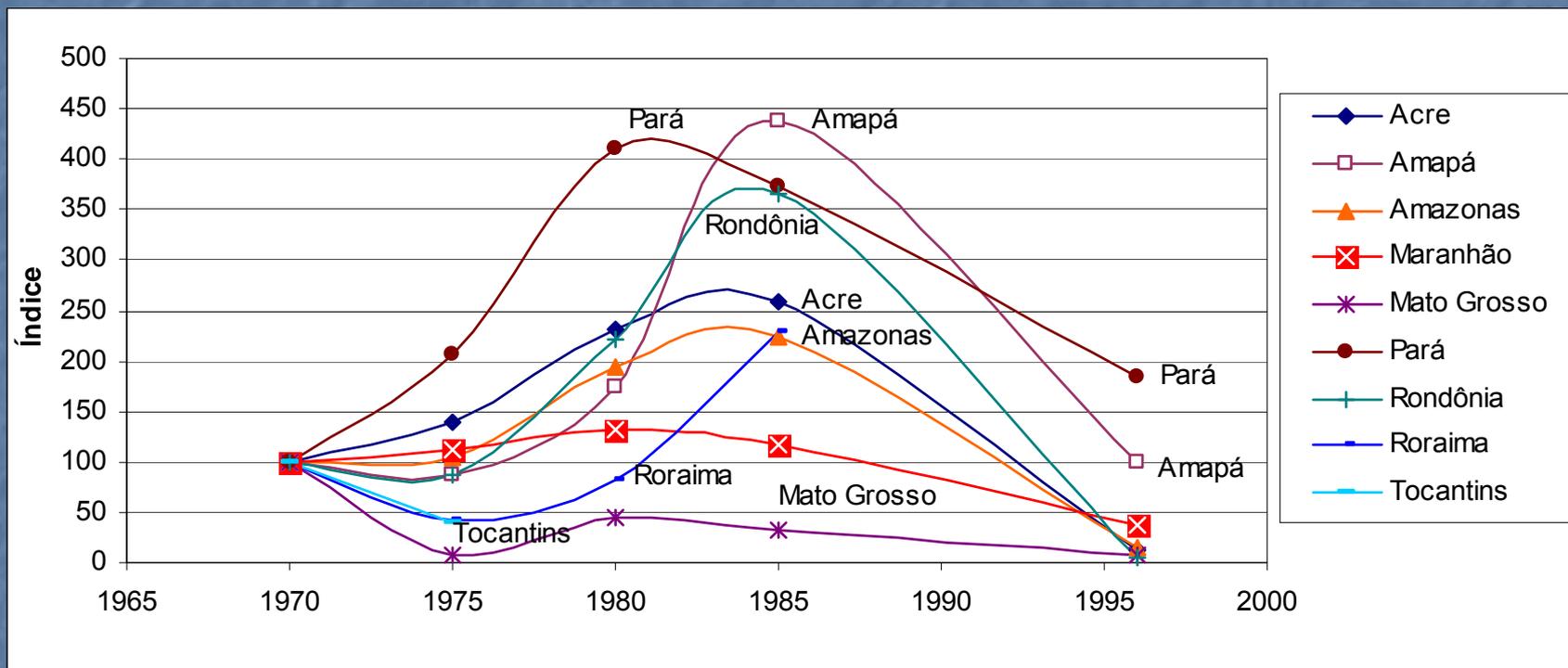




Value of the three most exported Amazon non-wood products in last years. (SECEX)

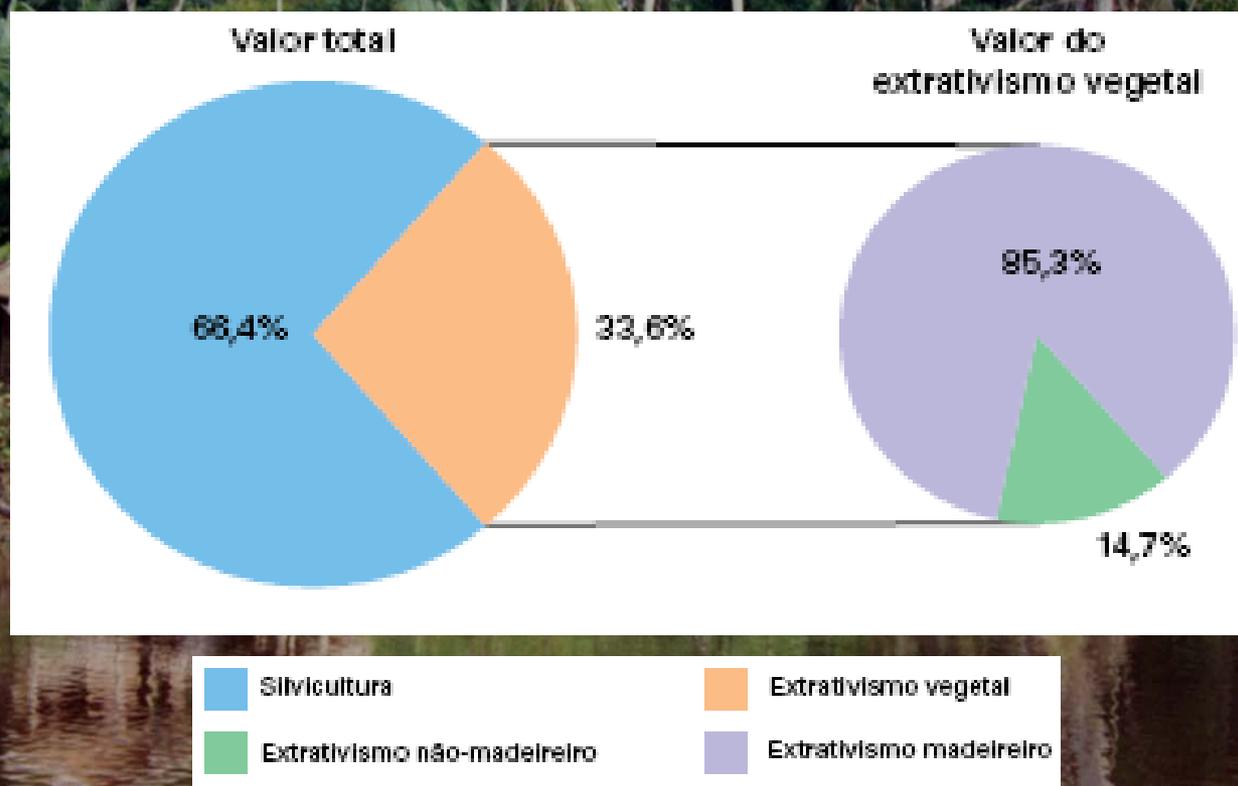


Série Histórica da Receita do Extrativismo Não-madeireiro nas Unidades da Federação da Amazônia Legal, segundo dados dos Censos Agropecuários (IBGE).



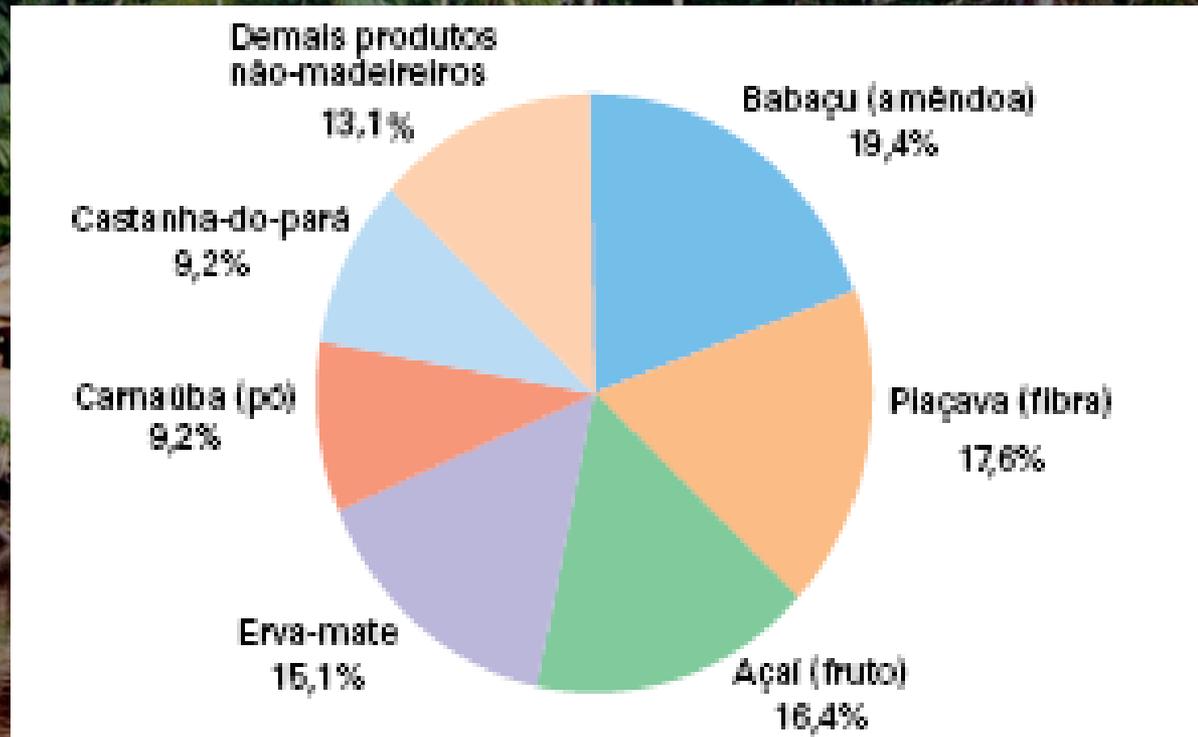
Fonte: Projeto Produção Extrativa Não-Madeireira e Desenvolvimento Sustentável na Amazônia - ITTO 39/99 Ver. 3 (I)

Timber X Non-Timber

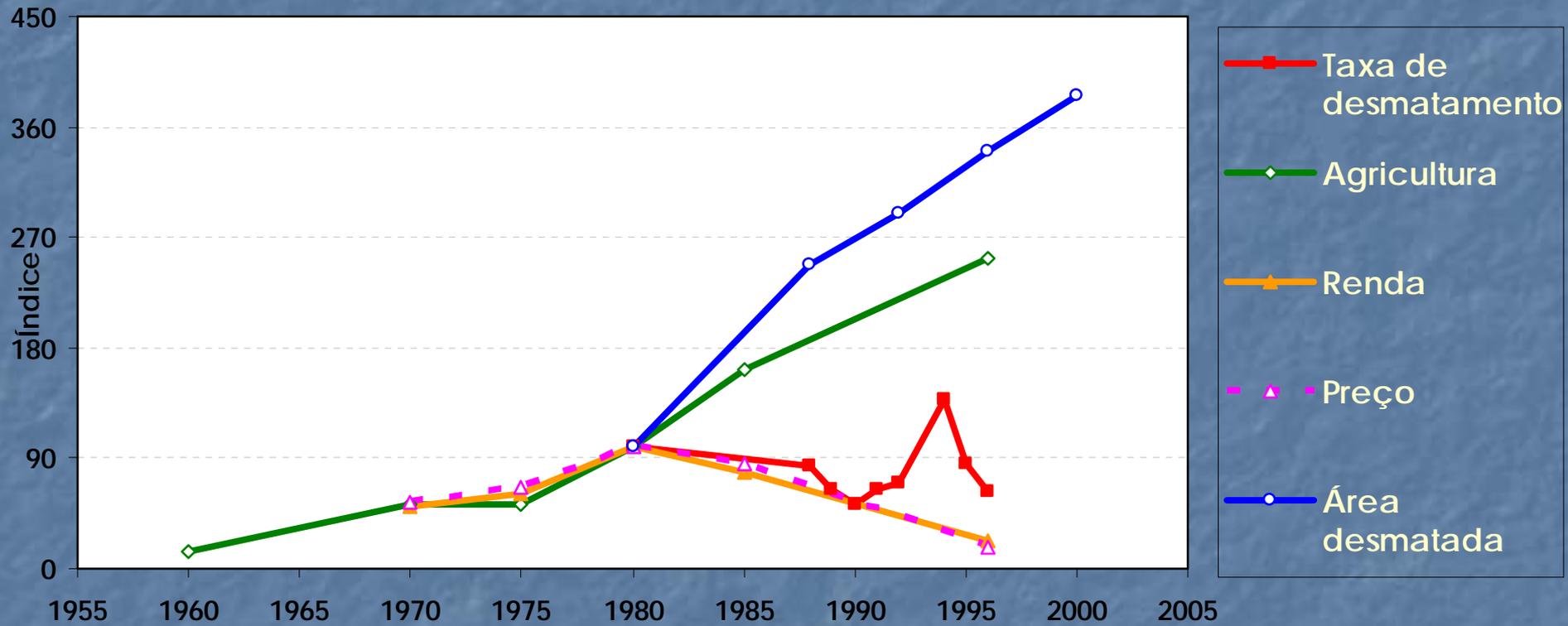


Fonte: Produção Extrativa Vegetal e Silvicultura (PEVS-IBGE, 2005)

NTFP - Main Products (2005)



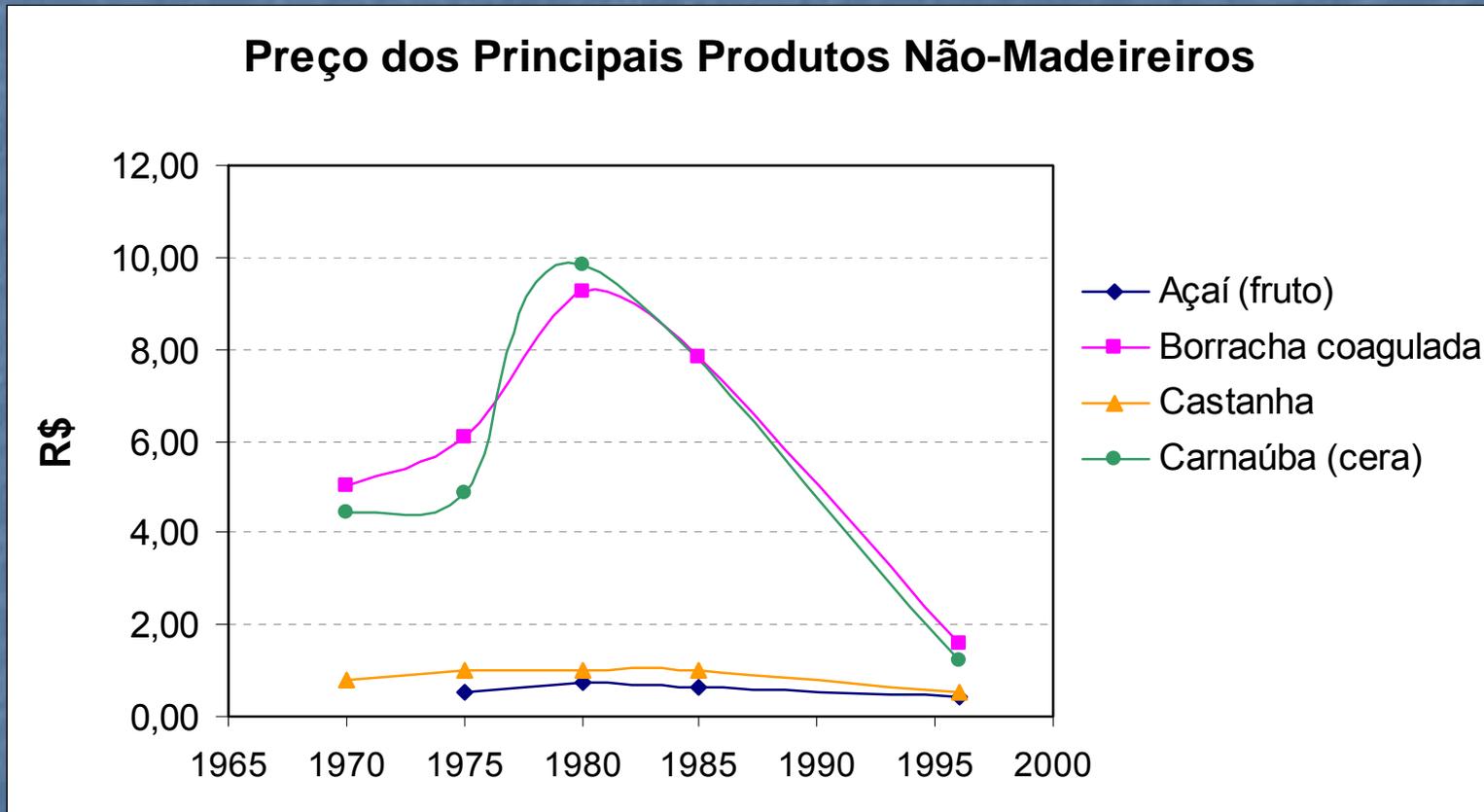
Relação da renda do extrativista com o desmatamento



Dados: Desmatamento (INPE), Agricultura (IBGE), Renda e Preço (LATEQ/UNB)

Prices (R\$/kg) of main NTFP

(Agriculture Census, IBGE).



Fonte: Projeto Produção Extrativa Não-Madeireira e Desenvolvimento Sustentável na Amazônia - ITTO 39/99 Ver. 3 (I)

BUT: who is the extractivist and what are the main features of his work:

- The native species in the forest are not concentrated and the man needs to walk long distances to collect his production
- He has that collection area as his properties and protects it: **HE IS THE GUARDIAN OF THAT PIECE OF FOREST**
- Walking long distances within the forest, he needs to know how to survive, observing animals and selecting things from the forest: **HE EXPANDS OUR GENERAL KNOWLEDGE AND THE ETHNOBOTANIC SELECTION FROM NATURE**
- Living isolated in small communities, he needs to preserve and keep acquired knowledge to survive: **HE IS THE KEEPER OF HIS OWN CULTURAL TREASURE**
- Is that always true?

Stability of labor and rent commands the process

- If he works and makes money with the extractive production, the extractivist acts in our favor keeping the forest.
- Otherwise: the extractivist acts against the forest, doing one or more of the following activities:
 - Expanding agriculture and cattle farming through slash and burning techniques, without control
 - Over hunting and fishing
 - Intensive (and normally illegal) logging for timber companies,
 - Mining
 - Leaving the forest to live in the cities.