



## 13<sup>th</sup> International Congress of Ethnobiology

*S12: Environmental "norms," mobility and "biodiversity" management in Amazonia*

# Land tenure security, rural-urban mobility and resources management in a *quilombola* territory (Trombetas river, Pará, Brazil)

**Stéphanie Nasuti**, Centro de desenvolvimento sustentável – Universidade de Brasília

**Ludivine Eloy**, CNRS (UMR 5281) – Universidade de Brasília

**François-Michel Le Tourneau**, CNRS (UMR 7227)

**Céline Raimbert**, Insitut des Hautes Etudes de l'Amérique latine (IHEAL) - Université Paris 3

**José Cândido Lopes Ferreira**, Universidade Federal Minas Gerais (UFMG)

**Marcelo Negrão**, Insitut des Hautes Etudes de l'Amérique latine (IHEAL) - Université Paris 3

**Montpellier**

May 24, 2012

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- Households are not homogeneous, even in contexts of collective land tenure
    - *Hypothesis 1*: some activities depends on the level of capitalization of the households
    - *Hypothesis 2*: mobility behaviour varies according to the use of resources
  - What do we learn of resources management from the observation of urban mobilities?
  - Does rural-urban mobilities reflect differentiations between households?





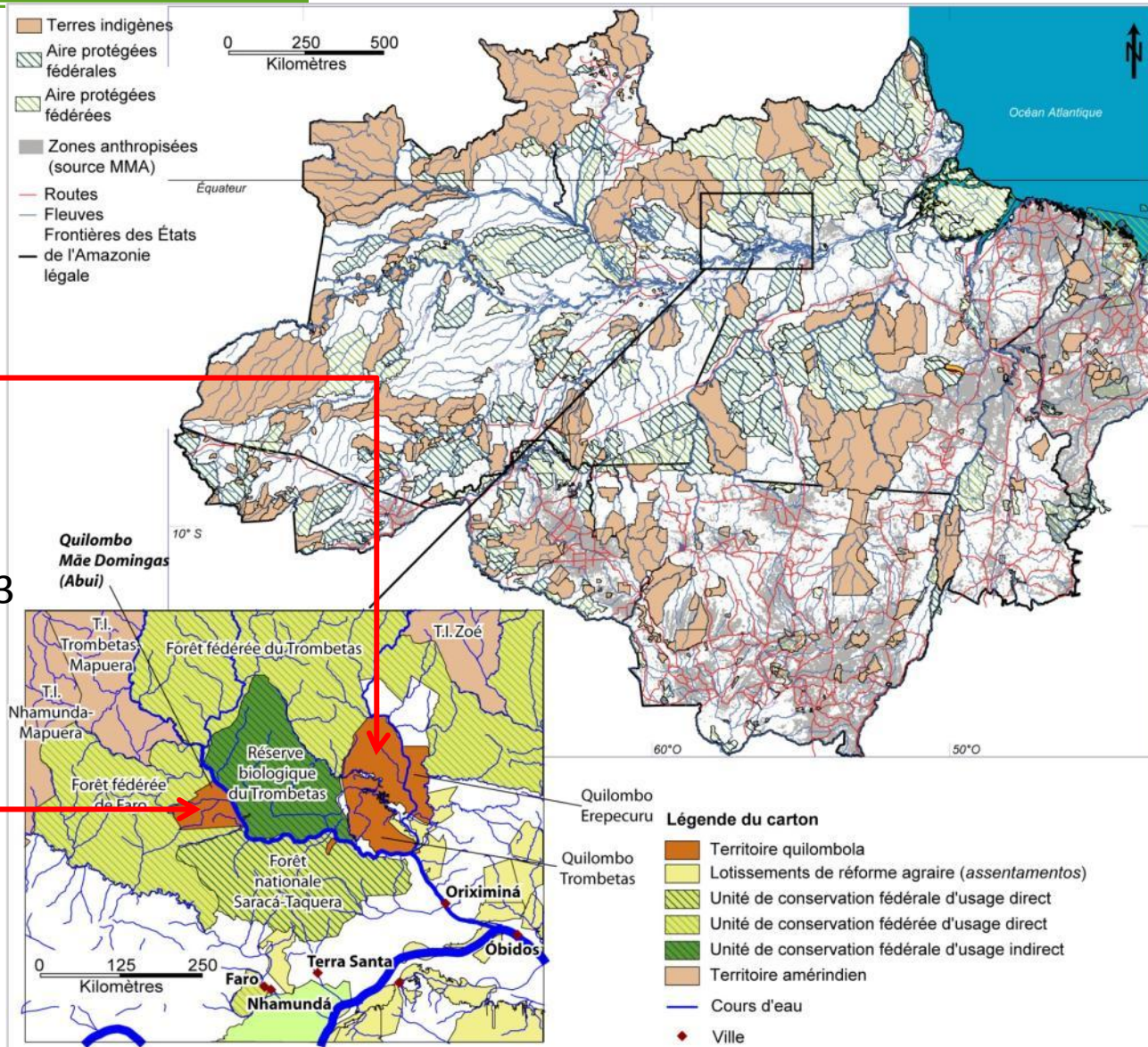
# Quilombolas territories and protected areas

In Oriximiná municipe

- 5 *quilombola* territories between 1995 and 2003
- 22 villages, 362.000 ha
- Collective land title

- Terra Trombetas; 1997  
80.887 ha;  
5 hours from city

- Terra Mãe Domingas; 2003  
61.212 ha;  
12 hours from city





MAPA DA SITUAÇÃO FUNDIÁRIA DO BAIXO E MÉDIO TROMBETAS

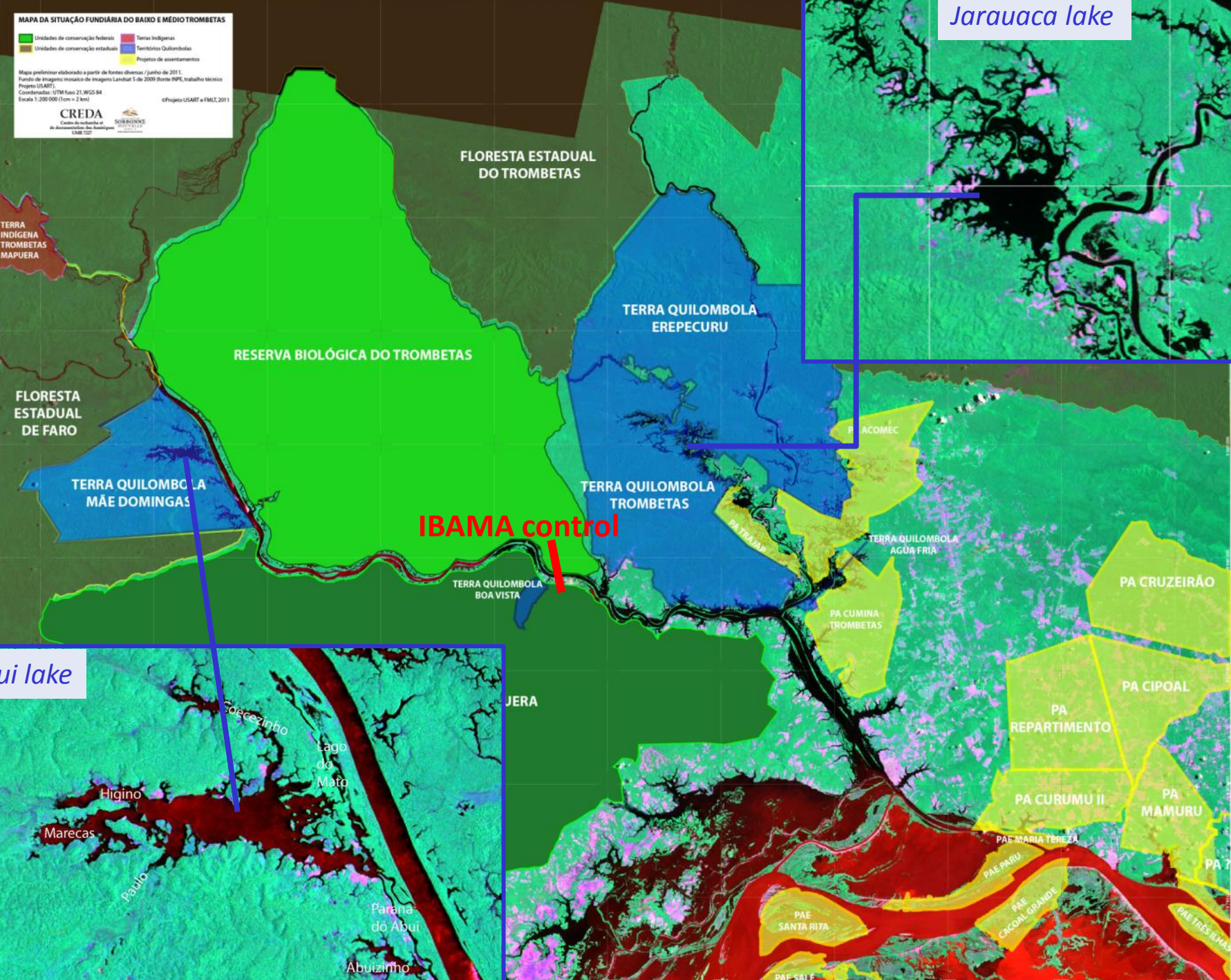
- Unidades de conservação federais
- Unidades de conservação estaduais
- Terras Indígenas
- Territórios Quilombolas
- Projetos de assentamentos

Mapa preliminar elaborado a partir de fontes diversas / junho de 2011.  
Fonte de imagens: mosaico de imagens Landsat 5 de 2009 (Instituto INPE, trabalho técnico Projeto USAR).  
Coordenadas: UTM fuso 21, WGS 84  
Escala: 1:200.000 (1 cm = 2 km)

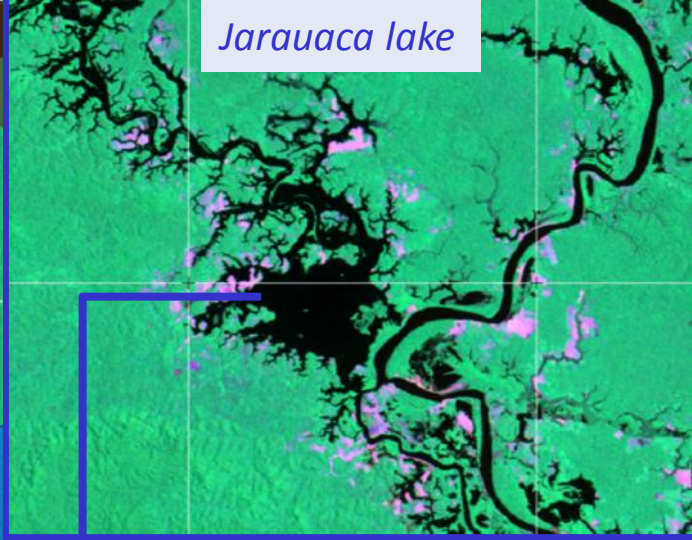
CREDA  
Centro de Referência  
de Documentação das Atividades  
CMBR 2007

SORONNE  
SOCIETAL

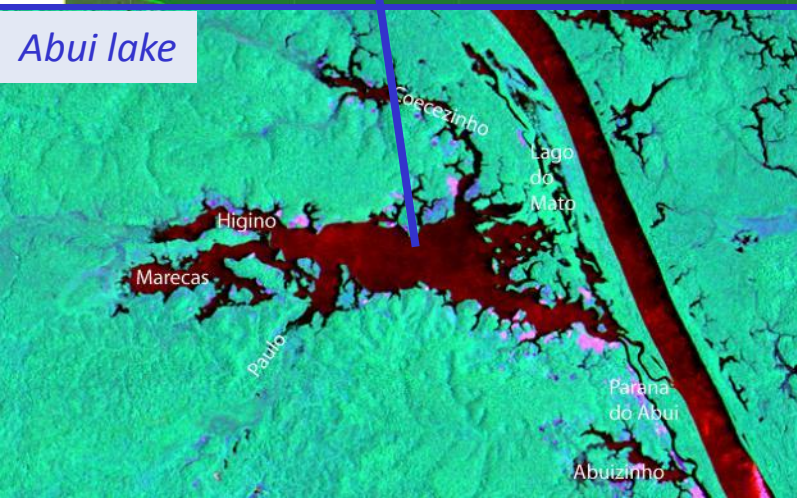
Projeto USAR e FMCE, 2011



Jarauaca lake



Abui lake





# Family network dispersion

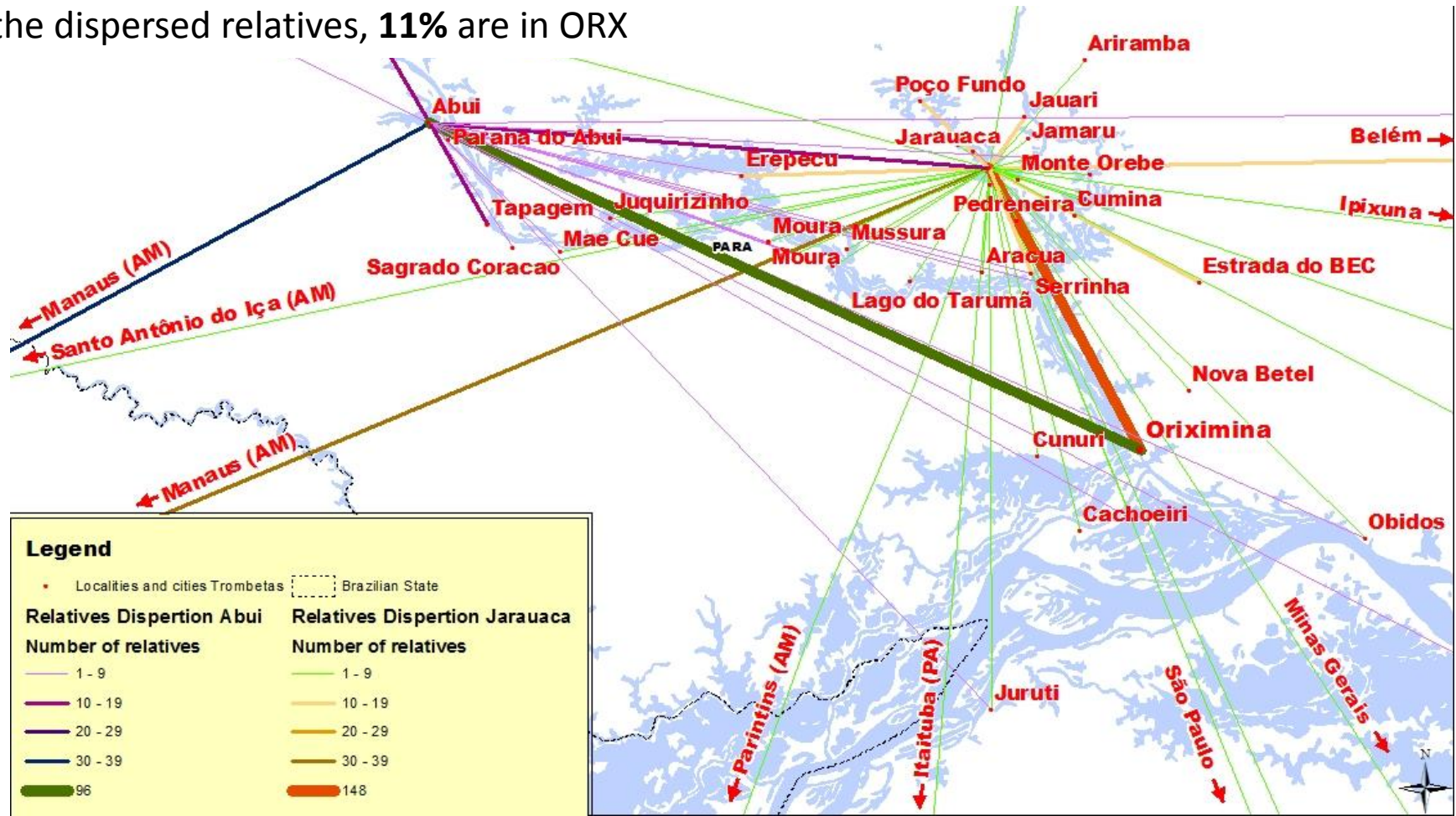
— Spatial relatives dispersion from Jarauaca and Abui communities

## Jarauaca

- 43% of relatives in the village
- Of the dispersed relatives, **24%** are in ORX

## Abui

- 72% of relatives in the village
- Of the dispersed relatives, **11%** are in ORX

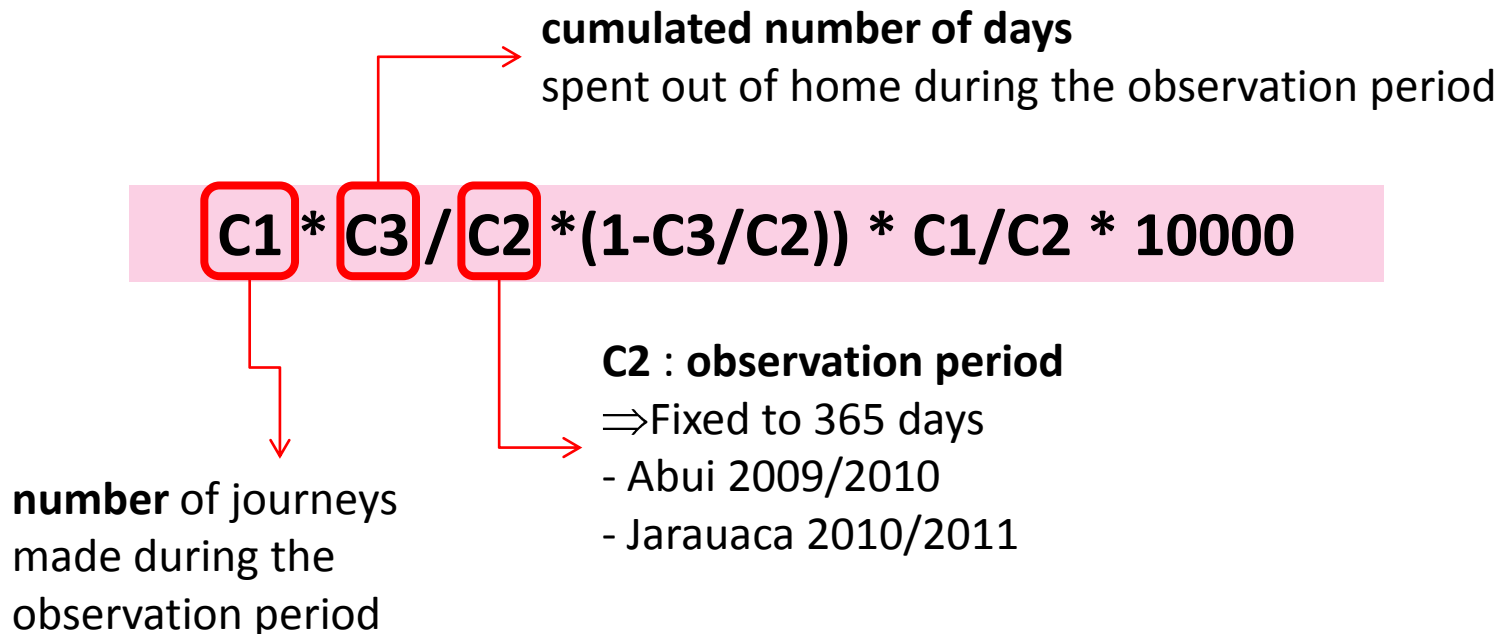


# Individual and family circulation

- **Circulatory index (CI)**

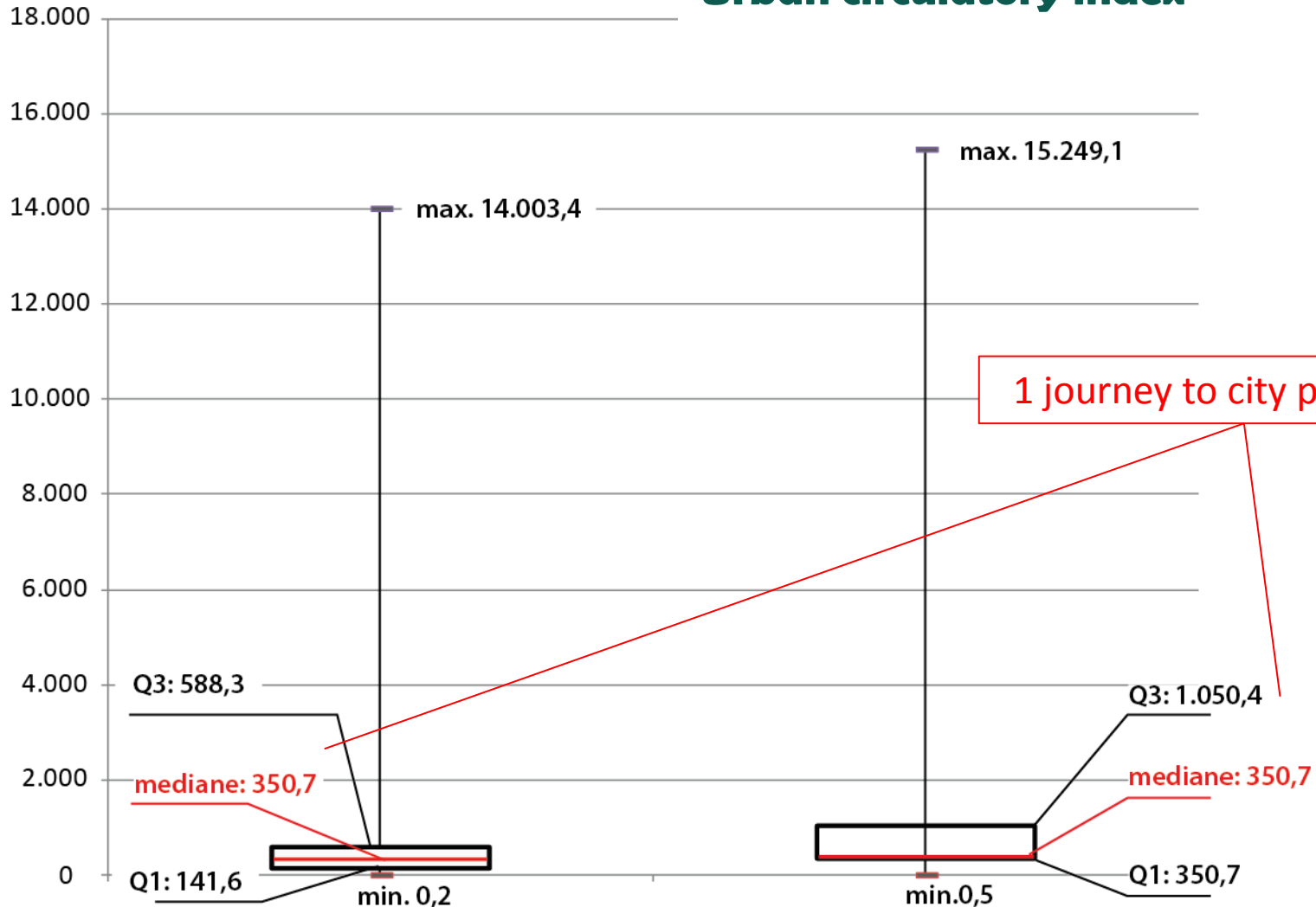
adaptated from

Baby Collin V., Cortes G., Faret L., Sassone S., "Approche comparée des parcours de mobilité des migrants internationaux latino-américains. Mexique-Bolivie". International congress, "Circulation et territoires dans la migration internationale", Toulouse, 2005



# Village-city circulation

## Urban circulatory index



**ABUI**

**JARAUACA**

# Typology of individual

## « urban circulation patterns »

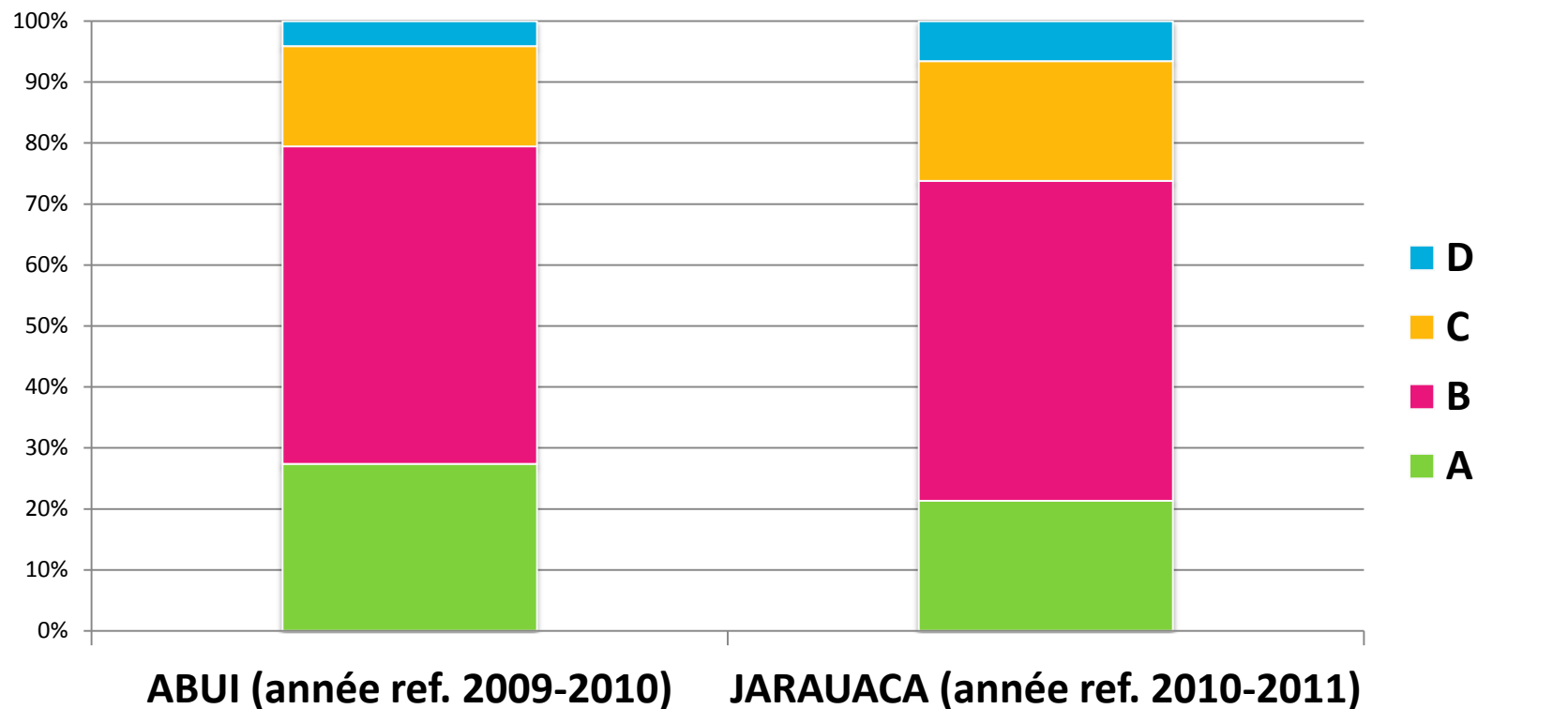
- 4 distinct patterns of circulation

	Circulation pattern	Average number of annual trips	Urban CI	type
<i>Little circulating</i>	Less than 1 trip per month	up to <b>8</b> trips per year	0-268	<b>A</b>
<i>Medium circulation</i>	About 1 trip / month 1 trip every 3 weeks or long journey	up to <b>15</b> trips per year	269-793	<b>B</b>
<i>Rather circulating</i>	About 2 trips/month (every 2 weeks)	up to <b>27</b> trips per year	794-3999	<b>C</b>
<i>Very circulating</i>	3-4 trips /month ou frequent journeys with long stay	up to <b>61</b> trips per year	>3999	<b>D</b>



# Typology of individual

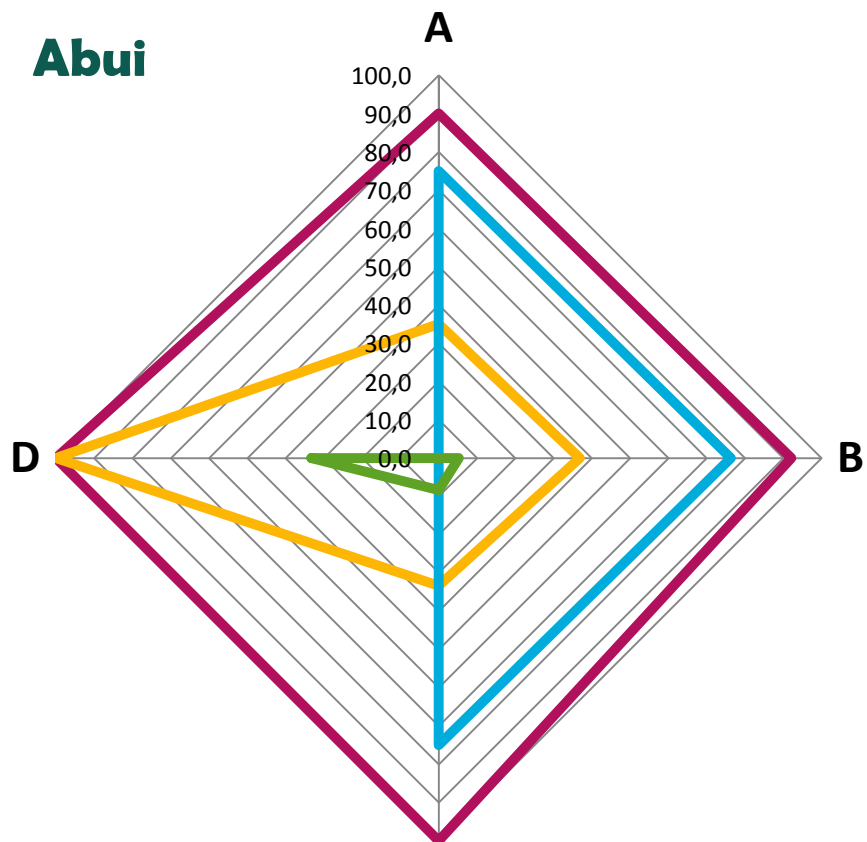
## « urban circulation patterns »



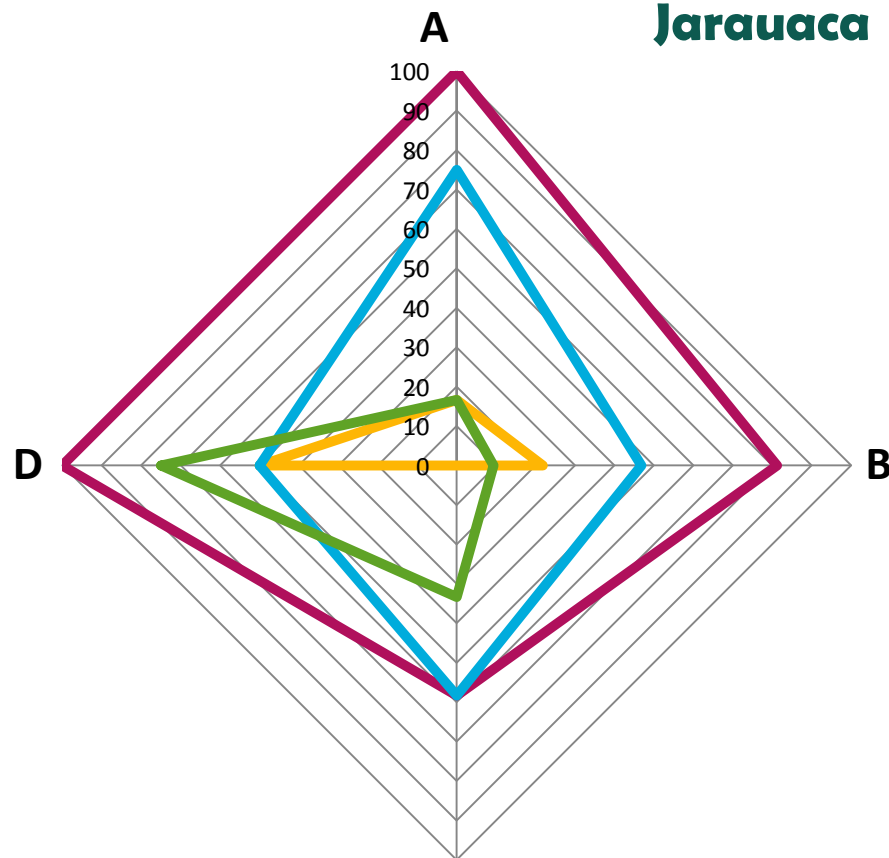
	A		B		C		D		total
	<i>effectif</i>	%	<i>effectif</i>	%	<i>effectif</i>	%	<i>effectif</i>	%	<i>effectif</i>
<b>ABUI</b>	20	27,4	38	52,1	12	16,4	3	4,1	73
<b>JARAUACA</b>	13	21,3	32	52,5	12	19,7	4	6,6	61

# Circulation pattern and agricultural practices

Abui



Jarauaca

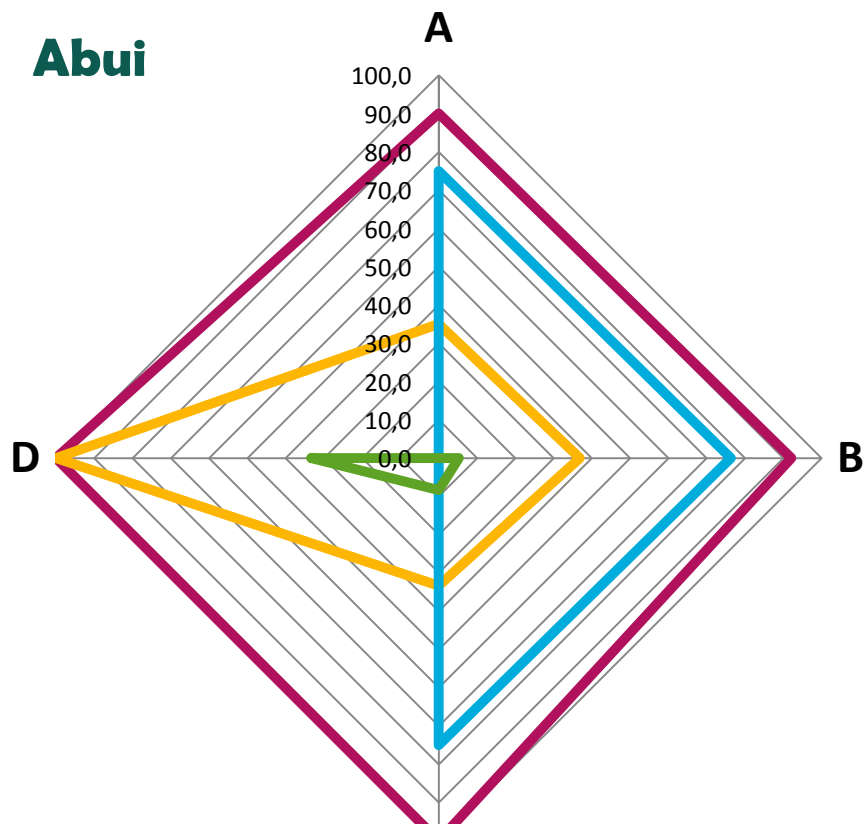


- Are circulation patterns homogeneous?
- Do they have specific practices?

- C Farm cropping
- Yellow Cattle breeding
- Cyan Brazil nut gathering
- Green Wood extraction

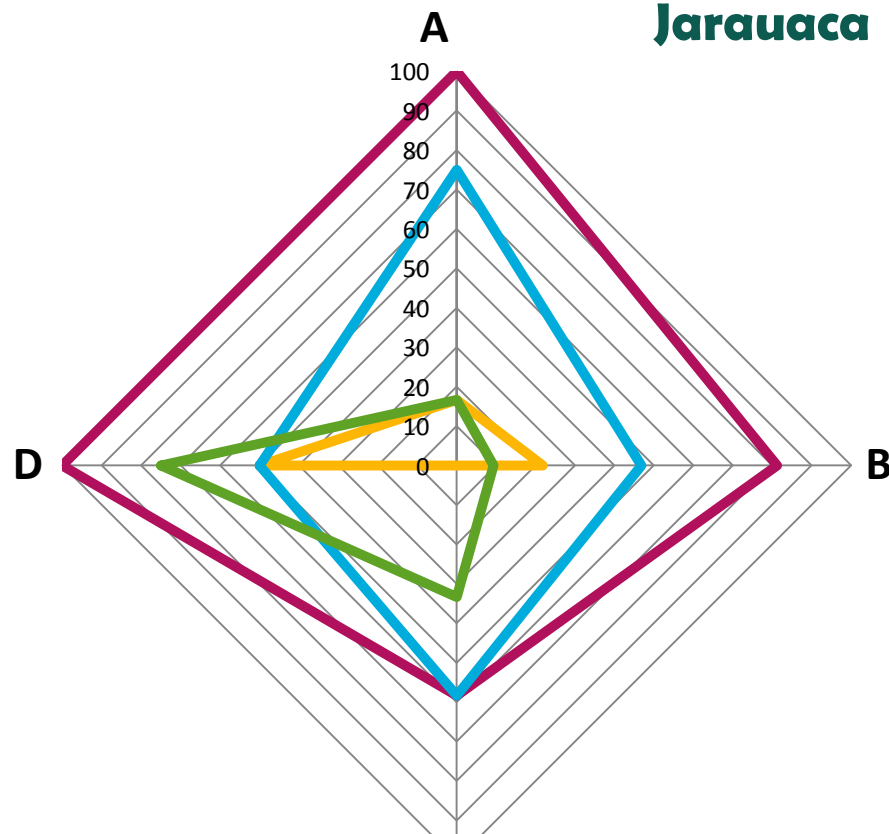
# Circulation pattern and agricultural practices

## Abui



163 head of cattle = 2,23 cow / inhab.  
68 persons practice agriculture,  
28 practice cattle breeding  
4 extract wood (1 selling),  
53 extract Brazil nut (1 selling?).

## Jarauaca



88 head of cattle; 1,4 cow / inhab.  
49 persons practice agriculture,  
11 practice cattle breeding  
12 extract wood (9 selling),  
33 extract Brazil nut (7 selling).



# Complementarities

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- Two family models
  - Same circulation pattern
  - Complementary pattern

	Same pattern households	Complementary pattern households
Abui	13 (A/B pattern)	14 (A+B pattern)
Jarauaca	9 (B/C pattern)	10 (B+C pattern)

- High circulation exists only in a complementary pattern

# Mobility and natural resources management

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- Rules
- Dispersion and belonging
- Who is part of our village?

- Land tenure fixation
- Internal / external resources management

