An Analysis of Factors Leading to Resilience of Indigenous Food System

Regional Context
- Two small towns in Brazilian Northwest Amazon, the Rio Negro basin (black water ecosystem)
- Food system based on spatial complexity, biodiversity, large exchange networks, and diversity of food preparations.

Objective
- Analyse the relationship between resource management systems and food security in order to define determinants of indigenous food system resilience regarding global environmental change.

Method
- Ethnographic and agro-economic interviews (n=75) in two towns over 7000-13000 inhabitants (São Gabriel da Cachoeira and Santa Isabel do Rio Negro).
- Participatory mapping with GIS and remote sensing.

Global-to-local factors influencing food security

Global factors
- Climate variability & extreme events
- Forest cover degradation

Regional factors
- Uncertainty and risk of swidden agriculture and fish resource availability
- Uncertainty and risk of food transportation and supplies
- Urbanisation
- Pluriactivity and multilocality
- New fishing and agricultural techniques

Local factors
- Changes in use rights over resources
- Local food security depending on technical and territorial innovations developed by indigenous families

Food system vulnerability for recently urbanized indigenous population
- Constraints: access to land and resources, transport, employment, education, social capital.
- High dependence on cheap agro-industrial food.

Conclusion
Technical, social and territorial innovations for maintaining food diversity.
Limited to indigenous families who benefit from non-agricultural incomes and land tenure security in the periurban area.

Priorities to enhance food system resilience:
- Supporting local/regional food chains based on quality and diversity
- River transportation for better accessibility to diversified natural resources
- Periurban agroforestry systems for sustainable poultry and fish breeding.
