Towards INMS

Plenary Meeting, Lisbon, 27-28 April 2015 Agenda

Session 3: Reflections and Engagement – Statements from Country Stakeholders

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State of the problem

- *Lack of information* - The impacts of land use and land cover changes, urbanization and climate extremes in the nitrogen cycle, are issues still demanding deeper understanding in Latin America .
- In general, only 20% of the domestic wastewater in the region is treated and about 17% of the population has no access to sanitation;
  - Sewage and poor management of watersheds lead to impoverishment of inland water resources at local scale, and leads to degradation of estuaries and coastal zones.
- *Non-sustainable* agricultural practices deplete natural riparian habitats resulting in high sediment and nutrient load in rivers and streams, often causing reduction of flow and eutrophication
- Agriculture – Commodities (soy, beef, corn, ..); Biofuel

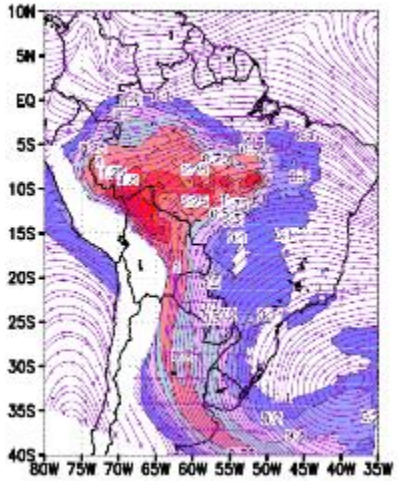
LEGISLATION ... (generic and linked to specific chemical specie)

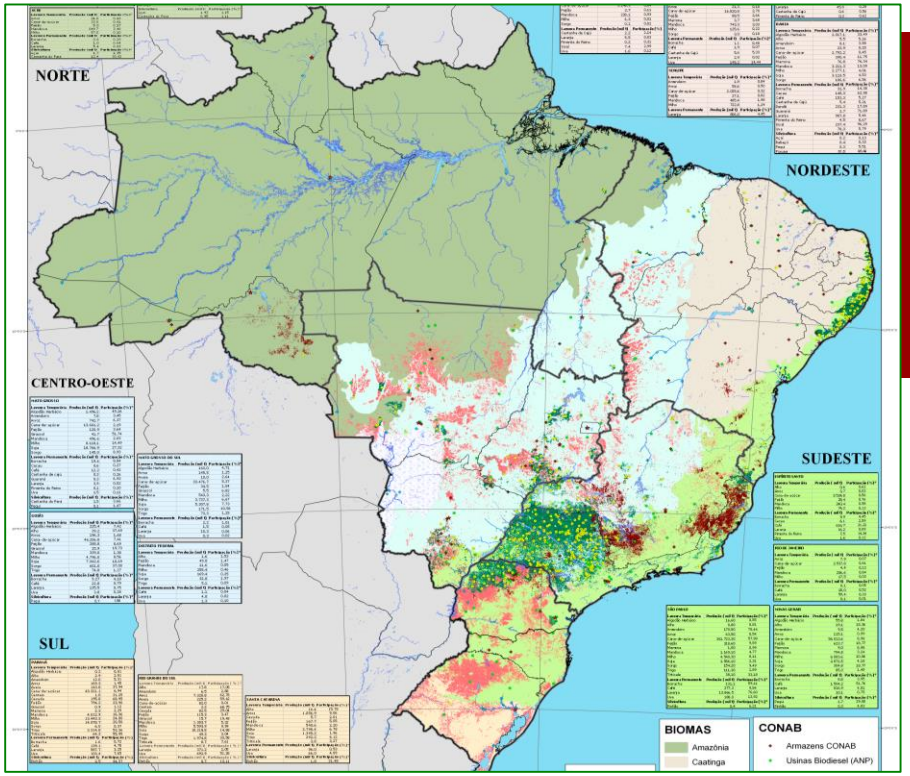
Brazilian National Council legislation (CONAMA - Resolutions 357/2005 and 397/2008) standards for ammonia and nitrate in water and effluents.

Trans-boundary air pollution (or river water pollution) are not regulate in the region – some debate on water pollution and water transposition among watersheds.

Forest Code → regulate the use and cover at property level.

- ✧ Socio-Environmental challenges
  - ✧ Plan for Adaptation
  - ✧ Agriculture/Pollution/Ecosystem health
- ✧ Integrative analysis





Agriculture also represents a key factor in regional food security.

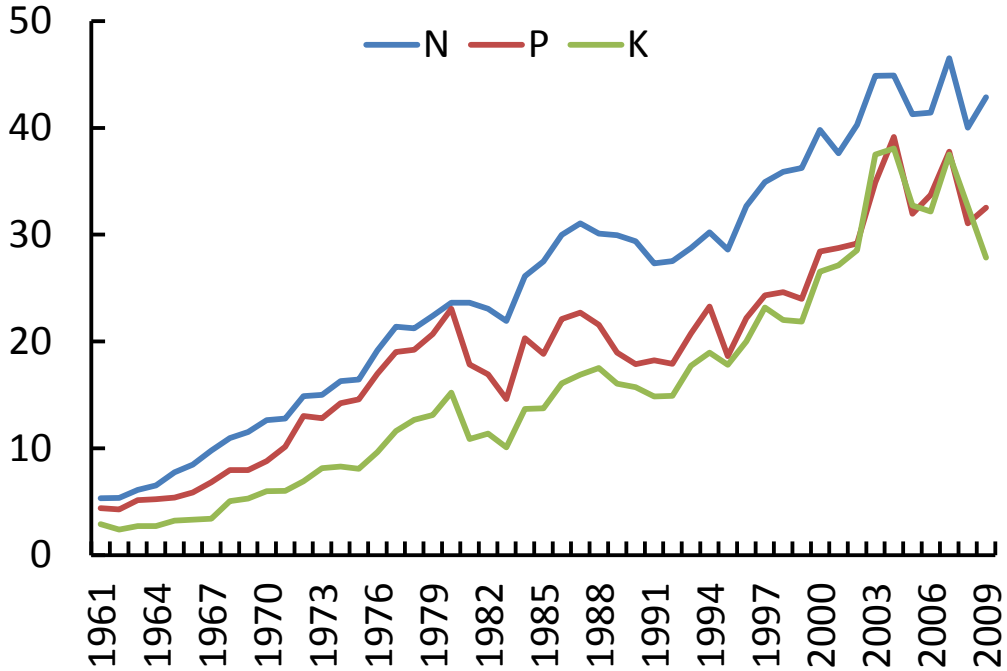
1960 – 7% of Global arable land >> 11% in 2010

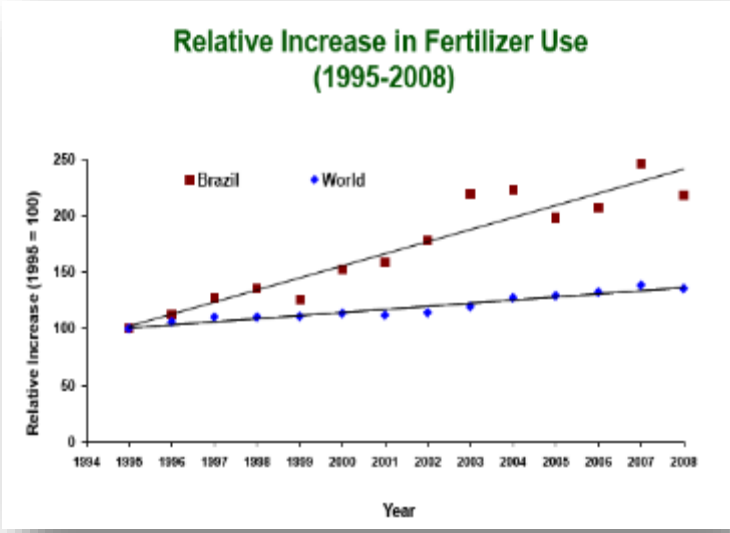
Major crops

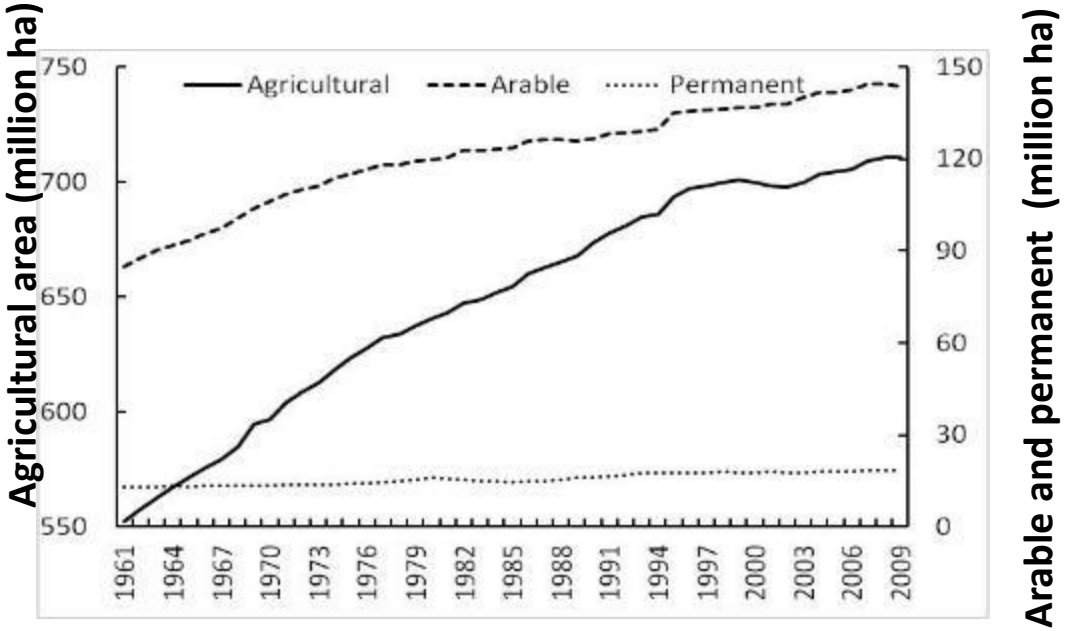
→ > 50% of the global cultivation of sugarcane and coffee;

→ 40% of Global soybean area.

The use of N-fertilizer has grown from only 5 kg/ha to approximately 50 kg/ha over the last fifty years







Fertilizer use and Agriculture in Latin America and Brazil

La Plata Basin (LPB)

La Plata → ~4.2 million km^2
4 Countries (AR, BR, BO, PA, UR)

The complex landscape, and societal arrangements result in a heterogeneous pattern of land use. Strong presence of commodities; High urbanization (over 85%); water treatment problems. The rural and industrial productions in the basin are responsible for about 2/3 of the GDP of the countries within the LPB (well establish infrastructure, Technology development, marked trends, and some regulatory policies in the region, and within the countries. Common Market (MercoSur),

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Thank you

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