

When the South comes to the North

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The Transformations of Research in the South:
policies and outcomes
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Agricultural research at stake

- **Food security** on the global agenda (reinforced by COP21 Paris Agreement) at the crossroad of Environment and Development issues
- **Strong research organizations** at the national (in the North as well as in the South) and international levels (CGIAR)
- The emergence of a **global science** landscape built through NU initiated wide assessments (IPCC, MA, IAASTD ...)
- Leading to an opening up of research concentrated in prestigious places towards **networking** of individuals and teams linked together
- Ag Research in a tension between **field level** and national and international policies to reach **political/societal targets**

France: a strong involvement in Ag research

- A **strong AKS** started at the beginning of the XXth, consolidated after World War2 (research [**Inra, Cemagref**], training, farmers organizations, cooperatives, etc.) targeting “agricultural modernization”, under the authority of the Ag Min, confirmed by recent creation of IAVFF ...
- An historical involvement into **tropical Ag Research** reassured by the creation of **Cirad** in 1983 and the confirmation of Orstom (created in 1943) into **IRD** (1998)
- **Increasing links** between these two “agronomical” traditions considering biological processes but recognizing that outcomes in terms of development cannot be the same (\pm 13 000 empl.)
- The creation in 1986 of Agropolis in Montpellier, **bringing together high education and research organizations** at the local level in the domains of agriculture, fisheries, environment, food, biodiversity, social sciences, etc.
- Which creates an attractive opportunity for **settling several research organizations** from abroad: national (CSIRO, ARS-USDA, Embrapa, Inta, Univ. Putra Malaysia ...), international (Bioversity International, CGIAR headquarters ...)

Argentina: a strong setting up in the territories

- 60 years of National Ag Research in the **service of the State** (changing) **priorities: Inta** ($\pm 10\ 000$ empl.) closely linked to Universities
- Coming from the “*desarrollista*” model (CEPAL), in charge of **research & extension** to boost “ag. modernization” for new family farmers (former workers or small tenants) in order to transform them into “producers” by facilitating organizations, cooperatives, youth movements., etc.
- Relying on young researchers **trained abroad** in genetics (wheat, maize, soya, cattle ...), new technologies for crop and livestock
- After a **free-market period** (during and after the dictatorship) with an increasing role of Agro-business big companies
- Coming back to a strong org. **setting up in the whole country**, framed by a 10 years strategic planning: family farming, territorial development, agro-ecology (vs. “soya no-tillage” model) and to be committed into South and Central America R&D networks
- Widening its frame by creating in 2012 the **Labintex** in Mpl in order to support outstanding research, building international cooperation and improve competitiveness and sustainability of national agr. production and the place of Argentina in the world market (4 researchers in France)

Brazil: a fast and recent dynamics

- **Embrapa** ($\pm 10\,000$ empl.) created in the early 70' to **increase ag. productivity** at the national level developing relevant technical models and breeds (animal & vegetal) adapted to local conditions (5 biomes) ["Green Revolution" like: 200% production increase relying on + 30% cultivated land in 40 years]
- To make Brazil one of the **major player** of the agricultural goods global market, giving advantage to large farms
- Building an international network of "**laboratories without walls**" ("Labex"): Washington (1998), Montpellier (2002)[France, UK, Germany, Netherlands], South Korea (2009), China (2012)
- Launching with France an **International Consortium in Advanced Biology** (in 2009, renewed for 5 years in 2015)
- Now, focusing more on **family farming** and adapted innovation, including agro-ecology, organic ag. etc., with the current strategic document "Visao 2014-2034" in order to re-balance the targets (cf. two Min. in charge of ...) and to develop South-South cooperation
- Opening ag production issues to **environmental** (water, biodiversity, climate ...) and **social** ones through renewed international scientific clusters

So what?

- An emerging **structuring of research** at work in a multi-polarized world: from a radial Center/Periphery model to a **web** of nodes, hubs, mobility, ...
- A way to build a **multicultural research community** overcoming westerner's design and understanding on environment, biodiversity, food, development... (e.g. “which research for which family farming?”, “the role of livestock in regard of Environment, Cultures, Territories”...)
- To valorize **crossed glances and analysis** on shared situations from both sides (supported by reciprocal settings in Argentina and Brazil (Agriterris lab., IRD LMIs, Cirad DP ...))
- Leading to **unexpected scientific thematic and topics** to be carried on together
- The role of “neutral hubs” (like Agropolis International) to favorish interactions between institutions, North/South, South/South, taking advantage of **worldwide vision on “grips” and “sockets”** that has to be investigated through a consistent global research plan/package