

Research Highlights 2012



SMART-LERECO is a research team as defined by the French Evaluation Agency for Research and Higher Education (AERES). It is made up of the INRA – Agrocampus Ouest Joint Research Unit on “Agricultural and Market Structures, Resources and Territories” (UMR 1302 SMART) based in Rennes and the INRA “Economic Research and Studies Laboratory” Research Unit (UR 1134 LERECO) based in Nantes.

Research Highlights looks back over the year’s main achievements in terms of research findings, participation in setting up research projects and programmes, decision-making assistance and knowledge transfer activities in our partnerships with academic research and higher education bodies and/or with public and private agriculture players (French ministries, European institutions, international organisations, extension services, professional agricultural organisations, etc.).

Knowledge transfer Nitrogen and livestock farming

Three SMART-LERECO economists working on **INRA’s joint expert assessment of Nitrogen Fluxes in Livestock Farming – Reducing Losses and Restoring Balance** explained the reasons for the geographic concentration of livestock farming and its pollution, and analyzed the public policies designed to regulate this pollution. The proposed courses of action differentiate between global pollution (such as greenhouse gas emissions) and local pollution (such as nitrate emissions in the water). The first type of pollution could be addressed by a tax on fertilization due to the proportionality of emissions to the land application of manure. However, the second type is not proportional to fertilization and has widely differing impacts from one watershed to the next. In this case, fertilization quotas and suitable soil use form the best instrument in practice.

Find out more:

Rapport d’Expertise Scientifique Collective « Les flux d’azote liés aux élevages. Réduire les pertes, rétablir les équilibres »

Gaigné C. (chap. 4). Les dynamiques de concentration, origines économiques des excès d’azote au niveau des territoires.

Le Goffe P. (chap. 10). Les instruments de régulation des pollutions des élevages : une analyse économique.

Cellier P., Dupraz P., Peyraud J.-L. (chap. 11). Options pour utiliser moins et mieux l’azote.

Contact : carl.gaigne@rennes.inra.fr

Research findings

Impacts of a nutritional tax

The growth in food-induced metabolic and cardiovascular disorders has brought the question of nutrition firmly into the sphere of public intervention. The team **studied the effects of a nutritional tax on the behavior of firms** by looking at how new, nutritionally improved products can emerge on the market when firms are not all given the same incentives to alter their products characteristics. This work shows that a food tax could prompt changes in both product quality and the sector’s competitive structure. However, under certain assumptions, the economic distortions are not offset by an overall improvement in consumer health.

Find out more:

Duvaléix-Tréguer S., Hammoudi A., Rouached L., Soler L.-G. (2012). Firms’ responses to nutritional policies. *European Review of Agricultural Economics* 39(5): 843-877.

Contact : sabine.treguer@agrocampus-ouest.fr

Research findings

Location et environment

The geographic spread of economic activities, especially food systems, is not neutral to the sweeping urbanization of our economies, urban sprawl and growing capital mobility. The findings published here show that **shifting agricultural production nearer to larger cities for short circuit opportunities can have a damaging effect on the environment**. If public policies are to be effective, they need to do more to account for their long-term effects on the geographic distribution of activities.

Find out more:

Gaigné C., Riou S., Thisse J.-F. (2012). Are compact cities environmentally friendly? *Journal of Urban Economics* 72: 123-136.

Gaigné C., Exbrayat N., Riou S. (à paraître). Taxe carbone, intégration économique et localisation. *Revue Economique*.

Gaigné C. (2012). Urbanisation et durabilité des systèmes alimentaires. In Esnouf C., Russel M., Bricas N. (eds.) *Pour une alimentation durable*, Quae.

Contact : carl.gaigne@rennes.inra.fr

Decision-making assistance

CAP reform beyond 2013

EU and national forums are currently debating the European Commission’s October 2011 legislative proposals for CAP reform for 2014-2020. This has prompted a study of **the economic sensitivity of French farms to different support policy shift scenarios**. Averaging the decoupled payments at the national scale proves particularly beneficial to extensive livestock farming areas, but has a very negative impact on intensive farming areas. Regional averaging is problematic in areas where heterogeneous systems co-exist. In all cases, the intensity of impacts strongly depends on the calculation methods used.

Find out more:

Chatellier V., Guyomard H. (2011). Les propositions législatives de réforme de la PAC (octobre 2011) : premiers éléments d’analyse. *INRA Sciences Sociales* n°6.

Chatellier V., Guyomard H. (2012). The October 2011 legislative proposals for CAP reform. A French point of view. *126^{ème} séminaire de l’EAAE “New challenges for EU agricultural sector and rural areas”*, Capri (Italie) et *Annual Conference of the Agricultural Economics Society of Ireland*, Dublin (Irlande).

Contact : vincent.chatellier@nantes.inra.fr

Knowledge transfer

Agricultural markets volatility

INRA held a seminar at the 2012 Paris International Agricultural Show (SIA) on **agriculture up against hazards: from climate variability to price volatility**. Four SMART-LERECO team members made contributions to the meeting. The presentations focused on growth in the volatility of agricultural product prices and explanatory factors; the repercussions of this price volatility on French farms; and private and public regulatory mechanisms.

Find out more:

http://www.inra.fr/audiodisvisuel/web_tv/rencontres/sia_2012

Chatellier V. (2011). Price volatility, market regulation and risk management: challenges for the future of the CAP. *International Agricultural Policy* 1: 33-50.

Cordier J., Gohin A. (2011). Quel impact des nouveaux spéculateurs sur les prix agricoles? Une analyse empirique des fonds d'investissement. *5^{èmes} Journées de Recherches en Sciences Sociales*, Dijon (France).

Huchet-Bourdon, M. (2011). Agricultural Commodity Price Volatility: An Overview. *OECD Food, Agriculture and Fisheries Working Papers* n°52.

Contact : vincent.chatellier@nantes.inra.fr , marilyne.huchet-bourdon@agrocampus-ouest.fr, jean.cordier@agrocampus-ouest.fr, alexandre.gohin@rennes.inra.fr

Research findings

Food sovereignty

In a break with the agricultural liberalization launched by the Uruguay Round, **food sovereignty is presented as a global alternative to guarantee a population's food security**. The idea is that long-run food security cannot rely on food imports, but needs to be built on the development of domestic production, assuming there are sufficient customs barriers to protect this domestic production from price fluctuations and unfair competition. Studies suggest that the West African countries have not exhausted their leeway to protect their agriculture, whether within the WTO talks, economic partnership agreements with the EU or with respect to the international financial institutions' recommendations.

Find out more:

Laroche-Dupraz C., Postolle A. (2012). La souveraineté alimentaire en Afrique est-elle compatible avec les négociations commerciales agricoles à l'OMC? *Politique Africaine* 119: 107-127.

Laroche-Dupraz C., Postolle A. (2013). Food sovereignty and agricultural trade policy commitments: How much leeway do West African nations have? *Food Policy* 38: 115-125.

Contact : catherine.laroche@agrocampus-ouest.fr

Research support

Documentary resources

In 2012, UMR SMART became a **repository for Scientific and Technical Information (STI) on Human and Social Sciences (HSS)** for INRA's Research Division for Social Sciences, Agriculture and Food, Rural Development and Environment (SAE2). The repository collects together documentary resources, adds to them, archives and references them, and makes them available to scientists in the SAE2 Division's different units.

Contact : celine.martel@agrocampus-ouest.fr

Research findings

Agri-food industry certification

An original database on IFS- and/or BRC-certified firms was used to study **the impact of retailer-required certification on French agri-food firms' export strategies and characteristics**. The results show that certified firms benefit from easier access on the European markets, mainly due to more advantageous fixed and variable entry costs. BRC-certified firms are among the most productive and are found to be more export-oriented than the others, confirming the influence that this standard has acquired Europe-wide.

Find out more:

Latouche K., Chevassus-Lozza E. (à paraître). Retailer supply chain and market access: Evidence from French agri-food firms certified with private standards. *The World Economy*.

Chevassus-Lozza E., Latouche K. (2012). Heterogeneity of firms, heterogeneity of markets and trade costs: access of French exporters to European agri-food markets. *European Review of Agricultural Economics*, 39 (2): 257-288.

Contact : karine.latouche@nantes.inra.fr

Decision-making assistance

Citation analysis

The practical and theoretical advantages of the **general source-level normalization method based on the propensity to cite** continue to be explored (see SMART-LERECO Research Highlights 2011). An article on the Journal Impact Factor (JCR – Thomson Reuters) again presented the principles of this alternative to the classic methods.

Find out more:

Zitt M. (2012). The Journal Impact Factor: Angel, devil, or scapegoat? A comment on J.K. Vanclay's article 2011. *Scientometrics* 92(2): 485-503.

Contact : michel.zitt@nantes.inra.fr

Research findings

Farmland and inequalities

An analysis of past agricultural censuses and farm structure surveys shows that **French farm size inequalities did not systematically grow over the 1970-2007 period**. The findings suggest that, among the main policy measures which affected the agricultural sector during the period, the land development and rural settlement agencies (SAFER) had the greatest relative effect on curbing the underlying trend growth in these inequalities.

Find out more:

Piet L., Latruffe L., Le Mouél C., Desjeux Y. (2012). How do agricultural policies influence farm size inequality? The example of France. *European Review of Agricultural Economics* 39(1): 5-28.

Contact : laurent.piet@rennes.inra.fr

Publishers

Pierre Dupraz (SMART) and Vincent Chatellier (LERECO)

Editors-in-Chief

Laure Latruffe and Laurent Piet

http://www.rennes.inra.fr/smart_eng

© SMART-LERECO, 2013