



POST-DOCTORAL CONTRACT

New technologies and farm household quality of life: Evidence from France and Argentina

Discipline: Economics

Source of funding: Auvergne Regional Council

Period: 18 months

Beginning of the contract: September 2015

Monthly salary: 2 551,29 € gross

Host laboratory: Joint Research Unit Metafort - Irstea, Clermont-Ferrand Center

Deadline for application: 30th of April 2015

Job description

The rapid growth of the new information and communication technologies (NICTs) and the place that they have acquired in recent years have changed the economy and deeply modified the modes of production. The agricultural sector has been affected in the same way as the other economic sectors. Thus, more and more digital services and mobile phone applications are specifically designed in order to address the needs of farmers and to allow them to access to technical (ex: weather) or economic (ex: commodity prices) information, to improve their management skills or to better access to certain resources (ex: bank credit)(Aker, 2001). At macroeconomic level, studies have already highlighted ICTs influence on agricultural prices (Jensen, 2007). At microeconomic level, results seem to be more mixed. Some works have ascertained ICTS influence on farmers decision-making and practices (Ali & Kumar, 2011). But their effect on prices and value-added are less obvious (Fafchamps & Minten, 2012). Furthermore, Chang and Just (2009) have demonstrated that taking account of socio-economic differences between ICTs users and non-users in these impact assessment was essential. Indeed, they have shown that internet use improves farm household income but that most of the income gap between adopters and non-adopters can be explained by the differences in the return of the socio-economic factors.

In line with this literature, this project deals with ICTs influence on farm household quality of life. Its aim is twofold. First, it aims at bringing new knowledge on the way ICTs influence farmers activity and practices and can contribute to improve their income. The post-doctorate will then conduct a literature review, interviews and a theoretical reflection. Second, the post-doctorate will use the econometric analysis to identify the real effects of ICTs and digital uses on farm household income. This analysis will be based on surveys carried out by the post-doctorate and on the collection of primary data. It will also rest on a comparison between study cases in France and in Argentina.

In Argentina, farming and rural areas have changed fundamentally since the 1990's, which broke down the myth of a unique development model (Gras & Hernández, 2007). Indeed, the process of political and economic liberalization has led to important tangible (ex: self-propelled equipment, biotechnologies, GPS) and intangible (ex: modern business management and agribusiness theories, financialisation of production) development. These technological changes have resulted in the development of the entrepreneurial farming model to the detriment of the traditional family-based model. Thus, conducting surveys among both Argentinian and French farmers will allow to compare ICTs' adoption, digital uses and their effects on farm household income in different contexts and farming models.

References :

Ali, J. & Kumar, S. (2011). Information and communication technologies (ICTs) and farmers' decision-making across the agricultural supply chain. *International Journal of Information Management*, 31(2),149-159.

Aker, J. C. (2011). Dial "A" for agriculture: A review of information and communication technologies for agricultural extension in developing countries. *Agricultural Economics*, 42(6), 631-647.

Chang, H. H. & Just, D. R. (2009). Internet access and farm household income – empirical evidence using a semi-parametric assessment in Taiwan. *Journal of Agricultural Economics*, 60(2), 348-366.

Fafchamps, M. & Minten, B. (2012). Impact of the SMS-based agricultural information on indian farmers. *The World Bank Economic Review*, 26(3), 383-414.

Gras, C. & Hernandez, V. (2007). L'agriculture argentine dans la globalization: connaissances et subjectivités. *Autrepart*, 2007/3 N°43, p. 147-163.

Jensen, R. (2007). The digital provide: Information (technology), market performance, and welfare in the South Indian fisheries sector. *The quarterly journal of economics*, 879-924.

Scientific framework

Post-doctorate direction: Pascale Phélinas, Director of Research, IRD – CERDI.

Co-supervision: Cécile Batisse, University Lecturer, Clermont-Ferrand School of Economics – CERDI ; Stéphanie Truchet, Researcher, Irstea - UMR Metafort.

Description of the scientific environment

The post-doctorate will join both CERDI and the Joint Research Unit Metafort, and more specifically Irstea, which will be her/his host laboratory. The Metafort Joint Research Unit (AgroParisTech-Inra-Irstea-VetAgroSup) has set themselves both objectives to better understand the changes in rural territories and to produce tools and methods in order to accompany the stakeholders producing these changes. CERDI is a Research Center dedicated to the study of the process of international development. It brings together economists, CNRS researchers and lecturers of the University of Auvergne from various fields of competence, who cover both the macroeconomic and microeconomic aspects of development. The countries with low or intermediate levels of income are the focus of the work of CERDI.

Required skills

- PhD in economics
- Knowledge on agriculture and rural development
- Strong skills in statistics and econometrics (among which survey data processing)
- Previous experience required in the conduct of interviews and surveys
- Ability to work as a member of a team
- Considerable proficiency in Spanish, scientific English and French.

Modalities to apply

Send before the 30th of April 2015 a complete application file comprising:

- Curriculum Vitae
- Cover Letter
- Title, abstract and a copy of the PhD dissertation
- List of scientific publications

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