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Discussion Group

New frontiers for agricultural issues in the new millennium

Implications for economic research

Observatory of World Agricultures

Issues for future research

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Initial remarks

- **On going process**
 - **To build the design and mechanism at institutional and operational level**
 - **To craft the tools and appropriate methodologies to handle the scientific issues**
 - **To do it in collaboration with national teams**
 - **To do it in a multidisciplinary way**
 - **To do it within a pilot project framework to establish a common understanding and common methodology so comparisons will be possible and meaningful**

- **Our expectations**
 - **An open discussion on our proposals**
 - **Possible areas of collaboration with teams that share the same or related concerns**

Basic hypothesis

- ❑ The performances of farming systems regarding global resources depends on the form of organization that shape the production and food systems
- ❑ This poses clearly the issue of the long term viability of the agricultural systems and their capacity to change and adapt to new conditions
- ❑ We need to look at Agricultures in plural
- ❑ We propose to split this broad hypothesis in three main issues



Three issues to build a renewed perspective on Agricultures

1. **The rapidly changing patterns of the way agricultures are organized.**
Hypothesis: changes in reality are faster than the representations that are available to handle them
2. **The fact that Agriculture is not an island but is strongly connected to other global issues since it covers and uses more than 40% of the land.**
The hypothesis relies on the low capacity of conventional performance criteria to take into account the inter sector dimensions of agriculture.
3. **The disconnection between the “observed stakeholders” and the end users of the information produced for policy making: farmers’ organizations, civil servants, public officer in international organizations..**



The issue of representation

- Represent “farmers” or the “different ways Agriculture is organized” at the beginning of XXI century and their on going transformations

- Paradoxical situation: family agriculture is the most widespread way of organizing food production but do we have the right tools to represent it and the way it changes?
 - Full time family farmers: trend to become minority?

 - Trend to increase the size of farms

- lead to focus (as a priority to start) the research on a specific type of farming: entrepreneurial agriculture, farming with hired labor...to capture the continuity and overlapping of categories



The issue of performance

1. The need to broaden the vision of performances since “agricultures”
 - (i) Is a key component of livelihood strategies for nearly 40% of the world population relies on agriculture: the nexus demography, food security, employment and poverty: economic and demographic transition issues
 - (ii) Occupies a major share of the total world land and mobilizes the natural resources. We must now take into account the global environmental challenges (climatic change among others) natural resource management since the way agriculture is organized may impact these resources
 - (iii) These concerns are generally viewed in a segmented way

2. Agriculture and “modernization” process of developed World 1945-2000 no longer viable

3. Need to develop integrated approaches to assess the viability of productive processes
 - Economic social environmental dimensions together with governance [and policy] issues
 - Produce knowledge on the dynamics : permanent update of the changes
 - Consequences / effects of the transformations on the global challenges

The information system issue

1. How to document the current transformations of the Agricultures ?
2. How to do it with the involvement of the stakeholders subject of the “observation process”?
3. We assume that this process will have an impact on policy making (“better policy making”), but it will need a specific investigation to document it

Principles

1. Use all the available information systems
2. But define a specific data base drawing on existing information
3. Define a common “Rules and regulations principles” to work (access, utilization of information...)
4. Sharing of existing tools and among the different Observatories



How do we intent to do?

- A 3 years research program funded by Cirad linked to these regional dynamics considered as seed money...
- Started in June 09 with an initial collaboration setting based on a combination of scientific and development interest and existing scientific partnerships
- **Regional level Observatories Dynamics**
 - Costa-Rica with **UCR** and *Observatorio del Desarrollo*
 - Madagascar with *Réseau des Observatoires Ruraux*
 - South East Asia *AIT (Bangkok for Asia)* and Viet-Nam, *CASRAD*
 - West Africa in *Mali with cotton information system* and *Niger with livestock information system*
 - North Africa *on irrigated agricultures*

How? (2)

- ❑ The focus: tools, methods and networking to create a common way of tackling the issues
- ❑ Working in a coordinated way on the 3 issues; the value added of the project mainly rests on building interactions
- ❑ Three groups of researchers, national teams in the countries and a coordination by three of us
- ❑ One of the challenges lies in the combination of local based approaches with specific interests in the follow-up of agricultures' evolution and the need to get indicators of performance that allow comparisons
 - Idea of a common “heart” or “pool” of indicators that carry sense both at global and local levels
 - With complementary indicators to handle local stakes and challenges

Choice of situations

- **Combination of local stakes and global concerns or challenges: two illustrations**
 - **Rice: food security, water, income generation, international market competition with northern agricultures, and technical challenges post Green Revolution**
 - **Livestock: food security in drought prone areas (Sahel in SSA), income generation, natural resource management and competition with “intensive” cattle growing (issue of technical model and location of production areas)**
 - **Cotton...**

Methodological issues

- ❑ **Combination of several approaches but with a local / regional (sub national focus) on a territory (size to be determined according to local situations)**
- ❑ **But with**
 - **A component on farm structure transformation**
 - **A component on sub sector**
 - **A territorial component with stakeholders' strategic analysis**
 - **A combination of different scales of analysis**
 - **A statistical appraisal of what is under observation to be able to**
 - **Use of GIS and data base drawing from existing information but creating a specific IS**

How to picture the changing
landscape in terms of
production structures?



How to represent the structural changes at farm level? Proposal of a draft typology for farming

**AF
Family
farming**

**Hybrid
Family farming
and hired
labor**

**Enterprise
Estate farming**

**Agriculture
dominates**

**Pluriactivity
dominates**

**Downstream
arrangements**

Family labor

**Family and
hired labor
(structural)**

Only hired L

Why this basis?

- ❑ It may traduce the current trends and the questions on the capacity of family farming to answer the challenges of feeding the expected 9 billions in 2050
- ❑ It relates to our core hypothesis of linkages between forms of organizations and performances
- ❑ We must precise the way to integrate the downstream dimension (integration, traditional markets...)

A typology to be tested in different contexts

- **Diversity of family farms**
 - **Without land appropriation («landless, or without cattle...)**
 - **Diversification of activities as a survival strategy**
 - **Strategy of agricultural specialization**
 - **Diversification as a strategy of economic growth**
- **A hybrid category family farms with structural hired labor**
- **Enterprises agricultures: hired labor is the only labor and capital / investment can have various origins**

To be tested and complemented

- ❑ The selected countries (for the 3 years initial program) are not necessarily the best location to test this typology and focus on hired labor based agricultures
- ❑ The way agriculture at production level is integrated in the global food system needs to be analyzed
- ❑ We also need to include and develop comparative work on EU agriculture and the “giants” (Brazil, India and China)

Performance issues



Performances?

- ❑ Relative notion
- ❑ Can we remain with the conventional usual criteria when the new challenges concern the management of environment and natural resources that will need to be addressed jointly with the socio economic ones? (*Classical techno centered paradigm*)
- ❑ We need to take into account local externalities linked to the mobilization of local resources (*ecological paradigm*)
- ❑ There is an urgent need to consider the way farming system affect the equilibrium of common global resources: carbon, fossil energy, water, soil fertility..
- ❑ On the socio economic side: employment, income, poverty, equity and even health related to the capacity to feed the families but also the qualitative dimension with nutritional dimension

Performances? Some questions...

- ❑ Who will decide what are and what should be the future performances?
- ❑ Whose interests will be taken into account? How to take into account oppositions?
- ❑ How to handle the various levels where these interests are a stake? How to deal with local oppositions and with oppositions / conflicts between local (that can be national) and international or regional interests?

Orientations

- ❑ **Need to keep in mind the growing demand for food and energy so the classical efficiency criteria must remain**
- ❑ **The definition of criteria and the follow-up process is a political choice and it is linked to the third dimension of the project: the information system and its design**
- ❑ **This implies a certain level of collaboration with local stakeholders to define the set of indicators...This will be the case from the initial stages of the research**

Proposal to organize the debate

- Clarifications
- Focus on methodological issues
 - How to represent the evolution of agricultural sectors?
 - How to deal with the issue of performance?