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Applying Ecological Knowledge to Landuse Decisions

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Sustainable development in the context of new ruralities. The case of the Biodiversity Conservation Project in Argentina.

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Ecological knowledge for decision making must include an understanding and analysis of social dimensions. Based on the Biodiversity Conservation Project (PCB – Proyecto de Conservación de la Biodiversidad), which promoted sustainable development in four poor communities in the Central Andes of Argentina, this paper highlights the relevance and importance of looking at transitions and livelihoods in order to understand small farm systems and rural settings in a context of globalization, structural transformations and the emergence of ‘new ruralities’.

The concept of ‘new ruralities’ refers to the new, developing organizational forms and agrarian structures for combining natural resources, labour and capital. The global agro-food regime that emerged with the expansion of the market oriented economy since the nineties and the increasing concentration of land and economic control with agro-industrial corporations initiated a process of rural transformation which has been called ‘new ruralities’ in Latin America (for details see Teubal 2002, Echeverría 2000 and Arce 1999). Part of this process has been the ‘disappearing peasantry’ (Bryceson et al. 2000): small farmers have reduced their participation in the economy as large producers, agricultural corporations and investors concentrate land use and economic power.

However, the macro-vision of these transformations does not help us to understand how people weave their way through, make sense of and live out such structural transformations. The PCB is an opportunity to analyze not only the different types of farmers and productive strategies (synchronic analysis) but also the trajectories of transformation (diachronic analysis).

A case study of two decades of structural change in Argentina

In the past two decades there have been dramatic changes in Argentinean rural societies. Structural adjustment programmes, the expansion of transnational corporations (TNCs) and the integration of agriculture into global agro-industrial markets, have transformed the agricultural sector, resulting in a new division of labour (Tapella 2004, 2005). On the one hand, large commercial farmers and TNCs became involved in finance, production and marketing of the agro-industrial process, increasing output with advanced technologies and intensive use of chemicals, and reducing labour costs through contract-farming schemes. On the other hand, many peasants were marginalised or asymmetrically included. They could not participate in contract farming and vertical integration, limiting their role to one of providing cheap food and labour. As a consequence, modernisation resulted in more concentration of capital and a more inequitable distribution of wealth.

From a macro economic point of view, Argentina experienced a major evolution of the agricultural sector in terms of new technologies, increased production and exportation. Continuing agricultural growth has maintained the contribution of the primary and agro-industrial sector near 30 per cent of GNP (Lattuada, 2000:2-6). However, participation of the peasantry in the economy decreased, open competition produced unequal growth with some regions becoming more viable than others, and rural poverty increased (Maletta, 1995). Rural unemployment reached 31 per cent in 1999 (Hicks, 2000:17). The last census (INDEC, 2003) indicated that Argentina experienced an increase in agriculture production together with a shrinkage of the small farm sector: the number of farmers in Argentina decreased 24.4 per cent in 15 years. This process was accompanied by a concentration of production and land tenure. The amount of land per farmer increased 28 per cent, without opening new agricultural lands. Land is being concentrated in large operations in highly mechanized systems often with genetically modified crops that support minimum tillage regimes (Gwynne & Kay, 1999 and 2004). A significant agrarian transition has followed these changes (Kay 1994, 1995 and 2000; Gwynne & Kay, 1999 and 2004; and Echeverría 2000). Many small farmers now provide labour to rural and urban labour markets under employment conditions that are precarious, temporary and 'flexible'. At the same time, development policies have shifted from state intervention towards Social Funds or rural development programs. In Argentina, state intervention in the rural sector during and after structural reforms shows different objectives (Manzanal, 2000:92). Governments have implemented policies aimed at increasing export-oriented agricultural production and re-activating the economy. Many small producers could not compete in this scenario and abandoned their land to sell their labour or migrate to the urban sector. Argentina has implemented different Social Funds to mitigate the impact of structural adjustment and reduce poverty, mainly targeting different 'types' of producers and rural poor. There are examples of Social Funds in agriculture, primary education, health, family planning, natural resources, rural infrastructure, urban shelter, water and sanitation (Narayan and Ebbe, 1997). However, not all stakeholders and communities fit into these broad trends. There is a need for a more detailed analysis of the dynamics of people's livelihood in order to understand small farm systems and their trajectories (Rodríguez Bilella and Tapella, 2008).

The Biodiversity Conservation Project (PCB) and the San Guillermo National Park, San Juan, Argentina.

The PCB was implemented by the National Parks Administration, being mainly financed by the Global Environmental Facility (GEF) of the World Bank. The general goal of the project was to conserve particular areas with biodiversity of global importance. The specific objectives were to: (a) expand and diversify the existing protected areas including several of the country's most globally significant but inadequately protected eco-regions, (b) create conditions for their sustainable management through investing in institutional strengthening, refined mechanism of consultation and participation, and improved biodiversity information management, and (c) support sustainable development projects run by local actors living in the buffer zones of protected areas (GEF, 1997).

Because of Argentina's wide latitudinal, altitudinal and climatic range, the country is rich in ecological regions and biological diversity. Argentina has long recognized the importance of these biological resources, and its national park system is the first in Latin America. Argentina's national park system represents an important economic resource, with major tourist attractions that provide significant sources of revenue. On the other hand, a recent National Parks Administration analysis estimated that only 21 % of the protected areas is adequately managed, 30 % is under some form of management, and almost 50 % cent receive very little or no management . Importantly, most of the population living in buffer zones or within protected areas has never been involved in sustainable development projects; so the use of natural resources in those areas are not always rational and often have negative impacts on its biodiversity (Bucher et al, 1996).

The San Guillermo National Park of 150,000 hectares is at approximately 3500 m a.s.l. within the San Guillermo Biosphere Reserve, which has a surface of 996,000 hectares. It was created in 1998 to contribute to the conservation of the highest concentration of vicuña in South America, but also to protect the cultural and historical heritage of the pre-Hispanic population which occupied the area 8.500 years ago. The PCB project had two main fields of action: (a) biodiversity conservation activities concerning the protected area, and (b) sustainable development projects that focus on local actors living in the buffer zones. Sustainable Development Activities in Buffer Zones were aimed at supporting improved community land use practices through pilot projects, applied studies, and extension and training activities. Pilot activities consisted in funding a variety of small scale projects such as testing improved land management options, organic agriculture, honey production, rural tourism and handicraft production, recovery of depredated natural grasslands, fire management, and the implementation of complementary biodiversity studies that would contribute to the sustainable use and conservation of biodiversity in national parks and buffer zones (GEF, 1997).

The project adopted some of the characteristics of Social Funds, and interventions emphasized collaboration between the public, private and NGO sectors. There was a process of debate among local stakeholders and different institutions linked to the area in order to re-think previous assumptions and expectations. The complex equilibrium between sustainable development and conservation was put in the context of structural changes and the increase of rural poverty during the last two decades. These types of interventions often face a 'trade-off' between natural resource sustainability and poverty reduction. It is believed, that the more programs focus on poverty alleviation (and usually people living in the buffer zones are poor), the more difficult it is to achieve natural resource sustainability. The stricter the control on use and conservation of resources, the more institutions tend to 'exclude' the poorest land users since the opportunities for alternative production are narrower. How to overcome this conflict and link these objectives is the core issue for any intervention in this field.

It was decided that the GEF would support production oriented projects only when they fulfil the following requirements: (a) activities should protect and conserve basic resources, land, soil, water, air, etc.; (b) projects should be aimed at satisfying basic needs and reduce rural poverty; and (c) projects should not only be technically feasible, but also economically sustainable, since beneficiaries will have to cover project costs in future productive cycles (APN, 2006). The project was implemented in four Andean

communities in the buffer zone of San Guillermo National Park, at 2,000 m a.s.l.. The communities are in micro irrigated oases with agriculture, forest, fruit and cattle production.

A Rapid Rural Appraisal in 2003 characterized social, cultural and productive aspects of local communities, like demography, dynamics of productive systems, income sources, housing, education and health conditions, etc., using a socio-economic household survey on 75 per cent of the population, a participatory rural appraisal workshop and many unstructured interviews. A social typology was constructed based on different combinations of household's assets, mainly 'produced' and 'natural' capital. The study also characterized the institutional capacity to provide technical assistance to beneficiaries and support production and training projects designed to local expectations and needs.

Different types of institutions were invited to participate in the program: NGOs connected with rural development projects, honey production and environmental issues; different departments of the National University of San Juan; local civil society organizations; different departments and ministries of the provincial government of San Juan; National Institute of Water (INA), and the National Institute for Agriculture and Technology (INTA), among others. INTA and a bee-keeper NGO attended 75 per cent of total beneficiaries (nearly 150 households), organized in 8 distinct agricultural, honey, cattle and milk production projects for subsistence and the local market.

The social typology built up in the rapid rural appraisal was thought to be a way of adapting the external intervention to the highly heterogeneous local context of the buffer zone of San Guillermo National Park. Six social types were identified, three of which were the most relevant in terms of population and project beneficiaries (Tapella, 2003):

1. Small farmers, whose main income comes from arable or cattle farming and handicrafts. They produce for subsistence and local market, usually with family labour.
2. Salaried small farmers have similar characteristics to (1), but in addition have an income from jobs as civil servants (municipality, local police, irrigation district, etc.).
3. Unemployed rural poor who, although they usually have access to land, are not farmers but are occasionally hired as farm and non-farm labour, often obtaining their income from the collection and sale of firewood, or from odd jobs.

The present analysis was made eighteen months after the project began, involving interviews with different stakeholders, participant observation, and life history interviews (Francis 1992). Particular attention was paid to assessing the relevance of micro-projects in helping people to increase income or household consumption, the degree to which people had a sense of "ownership" of their project and had adopted (at least partially) new technologies, and the way the project impact differed according to distinct social types of farmers and different households' trajectories within the same social type.

The first conclusion that can be drawn from the experience is that besides differentiating local actors according to their physical capital, they should also be analysed according to cultural and social assets and the ways in which they combine these assets during the development trajectories. Micro-projects were successful for both

small farmers and salaried small farmers, and many projects went beyond their original objectives. Most of these farmers had no access to technical advice, while market conditions had reduced their production opportunities. Farmers adopted most of the technologies suggested, made good use of their investments, and eagerly demanded attention from the extension workers. They in fact received most of the extension workers' attention, as it was easier and rewarding for them to work with these farmers than with other members of the communities. In contrast, the results among the unemployed rural poor were quite heterogeneous, despite the groups apparent homogeneity with similar income sources, capital assets and poverty level. While some of the households replicated the success of the small farmers' projects, others failed to give a good use of the investments, showed apathy towards the extension workers, and did not have a sense of ownership over their micro-project.

An analysis of the life-trajectories of the unemployed rural poor was necessary in order to better understand those contrasting results. The analysis revealed two different sub-groups among the unemployed, who differed in their socio-cultural background. In most cases where the project succeeded, participants expressed their joy of returning to production as (very) small farmers, improve infrastructure for animals (yards, watering troughs) and start to tend pastures trees, small orchards, etc. For these actors, the project intervention reinforced and reshaped many of their goals, perceptions and values, making a link with their former experience as small farmers. This shows that livelihoods should be viewed not just as a matter of material well-being but also of non-material aspects. Beyond the availability of produced or natural assets, consideration of cultural, social and human trajectories and capital will help policy makers and rural extensionists understand heterogeneous development potentials in rural livelihoods.

A possible conclusion is that the intervention should have focused on current or former farm households since they have a greater possibility of taking advantage of the intervention strategy. However, this would mean reinforcing the limitations of intervention by attending just a few families, since less than 10% of the rural labourer households have an agrarian background, and less than 38% of the total population are small farmers (salaried or not). The constructed typologies used essentially fixed households in static categories without considering life trajectories and how livelihoods depend on a wide range of assets related to natural, human or social capital (Bebbington 1999). This could be worked differently by understanding the experiential dimension of poverty and livelihood issues as well as issues of social heterogeneity and cultural diversity. A more 'inclusive' alternative would be to include off-farm and non-agricultural activities in rural development projects. The sustainable livelihood approach can be an effective tool to include such complexities (Rodríguez Bilella y Tapella, 2008). It can enrich both research and rural extension, sustainable development and environmental projects.

Literature cited

APN. 2006. *'La Dimensión Humana de la Conservación. Desarrollo Sustentable en San Juan. Una experiencia con pobladores en el Área de Influencia de la Reserva y Parque Nacional San Guillermo'*. Buenos Aires: APN/GEF.

- Arce, A. 1999. '*Globalization and the Agrarian Transformation in Latin America*'. Paper for the Workshop '*Land in Latin America*. New context, new claims, new concepts, organized by Center for Latin American Research and Documentation (CEDLA), Research School for Resource Studies for Development (CERES) and Wageningen Agricultural University, Amsterdam, May 26-27.
- Bebbington, A. 1999. *Capitals and Capabilities: A Framework for Analyzing Peasant Viability, Rural Livelihoods and Poverty*. World Development, 27, 2021-2044.
- Bryceson, D., Kay, C., & Mooij, J. 2000. *Disappearing Peasantries? Rural Labour in Africa, Asia and Latin America*. London: Intermediate Technology Publications.
- Bucher, E.H., J. M. Chani, D. Gomez and M. Babarskas. 1996. '*Identificación y priorización de Ecorregiones y Sitios de Importancia global*'. Rome, Italy: FAO.
- Echeverría, R. G. 2000. '*Options for Rural Poverty Reduction in Latin America and the Caribbean*'. CEPAL Review, N° 70, pp. 151-64
- Francis, E. 1992.. *Qualitative research: collecting life histories*. In S. Devereux & J. Hoddinott (Eds.), *Fieldwork in developing countries*. London: Harvester Wheatsheaf.
- GEF 1997. '*Argentine Republic. Biodiversity Conservation Project*'. The World Bank
- Gwynne, R. N. and C. Kay. 1999. '*Latin America Transformed: Changing Paradigms, Debates and Alternatives*', in Gwynne, R. and C. Kay (eds) *Latin America Transformed. Globalisation and Modernity*, pp. 2-30. Great Britain and New York: Arnold and Oxford University Press.
- Gwynne, R. N. and C. Kay. 2004. *Latin America Transformed. Modernization and Modernity* (Second Edition), New York: Edward Arnold (Publishers).
- Hicks, N. 2000. '*Poor People in a Rich Country. A Poverty Report for Argentina*', World Bank Report N° 19992 AR, Vol 1 (23 March). Washington DC: Poverty Reduction and Economic Management Division.
- INDEC. 2003. '*Censo Nacional Agropecuario: resultados preliminares* (documento no publicado)', Instituto Nacional de Estadísticas y Censos, Buenos Aires: INDEC
- Kay, C. 1994. '*Rural Development and Agrarian Issues in Contemporary Latin America*', ISS Working Paper N° 173. The Hague: Institute of Social Studies.
- Kay, C. 1995. '*Rural Development and Agrarian Issues in Contemporary Latin America*', in *Week, J.* (ed.) *Structural Adjustment and the Agricultural Sector in Latin America and the Caribbean*, pp. 9-44. Institute of Latin American Studies. London: University of London.
- Kay, C. 2000. '*Latin America's Agrarian Transformation: Peasantization and Proletarianization*', in Bryceson, D., C. Kay and J. Mooij (eds) *Disappearing Peasantries? Rural Labour in Africa, Asia and Latin America*, pp. 123-38. London: Intermediate Technology Publications.
- Lattuada, M. 2000. '*El Crecimiento Económico y el Desarrollo Sustentable en los Pequeños y Medianos Productores Agropecuarios Argentinos de fines del siglo XX*'. (Unpublished paper). Buenos Aires: CONICET / FLACSO.
- Maletta, H. 1995. '*Argentine Agriculture and Economic Reform in the 1990s*', in *Week, J.* (ed.) *Structural Adjustment and the Agricultural Sector in Latin America and the Caribbean*, pp. 111-47, Institute of Latin American Studies. London: University of London.

- Manzanal, M. 2000. '*Neoliberalismo y Políticas de Desarrollo Rural en Argentina. ¿Inclusión o Exclusión productiva de los Pequeños Productores Agropecuarios Pobres?*', en Sánchez Quintanar, C., P. Sosa Ferreira y J. Matus Cerda (editores) Estado, Globalización para Quién? Política y Recomposición Institucional en el Sector Rural en América Latina. Colegio de Posgraduados y SAGAR, México.
- Narayan, D. And K. Ebbe. 1997. '*Design of Social Funds. Participation, Demand Orientation, and Local Organisational Capacity*', World Bank Discussion Paper N° 375. Washington D.C.: The World Bank.
- Rodríguez Bilella, P. and E.Tapella. 2008. '*Transformaciones globales y Territorios: Desarrollo Rural en Argentina, Experiencias y Aprendizajes*'. Buenos Aires: Editorial La Colmena.
- Tapella, E. 2003. '*Diagnóstico Socio-Productivo de pobladores y comunidades en el área de influencia del Parque Nacional San Guillermo*. Informe Final. Buenos Aires: Administración de Parques Nacionales/proyecto de conservación de la Biodiversidad (APN/GEF/BIRF).
- Tapella, E. 2004. '*Reformas Estructurales en Argentina y su Impacto sobre la Pequeña Agricultura. ¿Nuevas Ruralidades, Nuevas Políticas?*', en Estudios Sociológicos, N° 66, Septiembre-Diciembre, pp669-700, Revista del Colegio de México. México DC
- Tapella, E. 2005. '*Transformaciones estructurales en Argentina y su impacto en el sector rural. ¿Hacia una agricultura sin agricultores?*', en Gallina, A. (Compilador) "*La Globalización en el Banquillo: perspectivas locales y regionales*", EFU/REUS/ALFA Europe AID, pp280-232.
- Teubal, M. 2002. '*Globalización y Nueva Ruralidad en América Latina*', en Giarraca, N. (compiladora) *¿Nueva Ruralidad en América Latina?*, pp 45-65. Buenos Aires: CLACS