Summary of the first week

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INSITU_1_1: "IN SITU MANAGEMENT OF THE ANDEAN TUBER BIODIVERSITY IN COMMUNITIES DIFFERENTIATED WITH REGARD TO ITS COORDINATION TO THE MARKET"

T.Villaroel

The research was developed in two areas of production differentiated with regard to its access and articulation to the urban markets of Cochabamba city: very near and with very frequent access for Candelaria and individual-family type and distant and with infrequent access for Pocanchi and community-collective type (system of Aynoqa). The validity of traditional strategies of Andean tubers production with the utilization mainly of locally renewable resources was established, which constitute an average of 85% in Candelaria, in contrast with 100% in Pocanchi. In this type of low input agricultures, the management and utilization of one variety from a broad variability is emphasized: 42 varieties of potato, 27 of oca, 4 of papalisa and 4 of isano in Candelaria, in contrast to 23 varieties of potato, 21 of oca, 6 of papalisa and 4 of isano in Pocanchi.

In the production and reproduction of this biodiversity, the families of both areas resort mainly to traditional social practices like the Ayni and Tarpuja combined with the Company and Labor in Candelaria and the Mink'a, Ayni and interfamilial Company in Pocanchi. This practices minimize the need for money as a factor of production, strengthen the ties of reciprocity and solidary relationships between families and together with the heredity, the gift, the theft, etc., constitute the mechanisms to access to the varieties, redistributing in the site and outside the biodiversity.

The destination of the production is diverse: the self consumption include more than 90% of the cultivated variability, seed for the reproduction of the system and the biodiversity, barter or change for products from other ecologies and a volume is assigned for the payment or gratitude to the extra-familiar labor collaboration. The volume destined to the sale (70%) is the highest in relative terms, it includes not more than seven varieties on the average of potato, six in oca and not more than two varieties in papalisa in both areas. The biodiversity with the market shows as a tendency, a coexistence of the market with the conservation and the communities live together with that biodiversity.

The comments are referred to the effect of the social factor, market factor, and land use evolution and aynoca system as an influent factor.

1. It is mentioned that the biodiversity is enriched in means of the existence of a high number of ecosystems in less territorial areas. Also the higher cultural relationships, accessibility, economic, and social linkages, enriches the biodiversity. The social factor is crucial as it intensifies the migration paths (internal, external), the productive priorities, the operation of the communication processes among the key actors, and its degree of articulation to selected and/or high consumption markets should be taken into account for the dynamics of biodiversity.

2. The rural communities should strengthen their sovereign entry to the markets in such a way that it does not distorted the concept of conservation and the state support should be oriented to the business organization, the search of market value aggregation for the rural production and the conservation of the traditional knowledge.

3. It is suggest that independently of its level of dependency to the market, both Candelaria (85%) and Pocanchi (100%) sustain their traditional systems of production, that is, their capacity of in situ reproduction. This opinion is consistent with previous studies (see the references), which find that the old diversity is maintained but is displaced in space to the higher and riskier areas. The image in general of the new Andes farmer is one of market potatoes planted on the low areas with irrigation and though of less risk, "subsidizing" the production of traditional potatoes in the higher areas. In these changing systems as the Mantaro and Paucartambo (Peru), does the Andean farmer maintain its culture and passion for the diversity or does he lose it?

References:

- Brush, S. B. (1986). "Genetic Diversity and Conservation in Traditional Farming Systems." 6(1): 151-167.
- Brush, S. B. (1987). Who Are Traditional Farmers? Household Economies and Their Transformations. M. D. Maclachlan. New York, Society for Economic Anthropology-University Press of America: 143-154.
- Brush, S. B. (1991). Farmer Conservation of New World Crops: The Case of Andean Potatoes." 7(1-2): 75-79.
- Mayer, E. and M. Glave (,). Papas regaladas y papas regalo: rentabilidad, costos e inversion. Peru: el problema agrario en debate, Sepia III.
- A. Chirif, N. Manrique and B.Quijandria. Lima, Centro de Estudios Rurales 'Bartolome de las Casas",.
- Zimmerer, K. S. and D. S. Douches (1991).Geographical Approaches to Crop Conservation: the Partitioning of Genetic Diversity in Andean Potatoes." 45(2): 176-189.

4. A very important insight is that the cultural force has conserve and even increase the biodiversity. The suggestion to live before conserve is very appropiate. A question is if there has been more studies of the permanence and importance of the aynocas system, for example, how much of the area cultivated by a family constitute land in aynocas? (in Quechua it would be laymes, in Spanish suertes, etc.)

How much of this biodiversity is in this system and how much in sayanas individual land, which varieties are cultivated in the low part and which in the high, that is which specie of potato? Do the national programs promote the farming in aynocas? Then, why have not been done more supports and studies? In eight communities in Puno, a monitoring during one year of the tasks carried out, as well as the incidence of the development, concluding that in the areas with programs of development, the aynocas and the agrobiodiversity have diminished.(Canahua and Tapia, SEPIA IX 2001,Puno).

INSITU_1_2: "ADVENTURES IN AGROBIODIVERSITY.- ECOTOURISM FOR AGROBIODIVERSITY CONSERVATION"

M.Ramirez

Introduction

The concern to find alternatives to increase the value of diverse local crops for farmers led us to explore the ecotourism and its possible relevance to in situ conservation of agrobiodiversity. What is ecotourism? It is a responsible travel to natural areas that conserves the environment and sustains the well being of local people. It provides conservation rules, includes meaningful

community participation, and can be self sustain. Nature travel is increasing at an annual rate between 10% and 30%, representing approximately 20% of total international travels. In this research, an academic literature on ecotourism was undertaken as well as site visits where the ecotourism is promoted, participation in conventions and interviews to all the stakeholders of this topic. Most examples were from Latin America The great majority of ecotourism initiatives have been developed in or around protected areas in order to lessen the impact of human populations in these areas by expanding the available economic alternatives. Ecotourism ventures were always partnerships. All the participating communities had an established, legally recognized socio-political structure to represent and deal with outside stakeholders; the communities contribute with time and labor.

Outside partners included a private sector tour ism company, the government, NGOs and occasionally academics Funding secured ranged from loans to outright grants and technical assistance. The marketing effort was usually the responsibility of the outside partner. Government partners contributed matching seed funding, facilitated infrastructure development or mediated agreements between local communities and the private sector. Local NGOs were usually linked to an international NGO and acted as administrators of funding and providers of training.

The only case where agrobiodiversity conservation is a focal point is the initiative in the community of Vicos, Peru. In the case of the fruit orchards of San Juan Tezontla, near Mexico City, the objectives are the cultivation of introduced fruits and expansion of the cultivation of native fruits and herbs as well as agroecosystem recovery. Sharing of their knowledge and traditions as well as the possibility of some cultural exchange was noted as a significant benefit, apart from the more obvious economic one. Whereas the Peru initiatives are aimed mostly at the international market, the orchards in Mexico and the lodges in Costa Rica attract domestic visitors too.

The connections between agrobiodiversity tourism and interest in culinary arts and culinary culture also remain to be articulated as part of a common ecotouristic experience. Elements of this connection were seen in some of the tours developed by PromPeru (2000) and are important elements of cultural tours in Yucatan and the Central Valley of Mexico (Ehrenberg, pers. comm). The communities realize financial benefits, but their distribution relates to the benefit-sharing structure negotiated between partners. Job creation is generally limited since ecotourism favors small tour groups. Communities always participate in decision-making but extent of participation varies widely from sporadic consultation to day to day management of operations. Various types of educational benefits are realized during ecotourism development, most notably training to interact with tourists, small enterprise management crafts marketing, etc. Communities generally reduce non-sustainable use of protected areas. Ecotourism is mostly respectful of local culture.

In sum, ecotourism is no panacea for either community development or conservation, but it holds promise for both in the context of a set of diversified economic activities that also value people rather than just make commodities of them, as more conventional tourism has done in the past.

Ecotourism for agrobiodiversity conservation: Does it have a have chance?

1. Stakeholders mentioned that the ecotourism based on agrobiodiversity makes sense and represents an underutilized opportunity to both expand the ecotourism offer and to extend benefits to farmers.

2. The experiences and lessons learned in ecotourism during the last 10 years indicates that this approach can fulfill its promise of supporting conservation through provision of various benefits - though some very modest - to local communities

INSITU_1_3: "POLICY ISSUES AND CONSTRAINTS TO IN SITU AGROBIODIVERSITY CONSERVATION ON-FARM: EXPERIENCE OF IN SITU PROJECT, NEPAL"

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INTRODUCTION

Nepal is rich in agrobiodiversity as a result of its diverse farming systems, extreme variation in micro-agroecological niches and varied socio-cultural settings. Policies affecting in situ conservation of agrobiodiversity have not received the same level of attention from national and international decision-makers as the conservation of "wild" biological diversity in Nepal. Furthermore, Nepal's proposed entry to World Trade Organization (WTO) and enforcement of Trade Related Intellectual Property Rights (TRIPS) in WTO have brought new policy challenges and issues. Decision-makers wish to conserve agrobiodiversity lack appropriate information and knowledge on the formulation of policy instruments and legislation in accordance with the needs and goals of Nepalese agroeconomy. This paper present the findings of a recent case study that was designed to document policy issues, gaps and constraints to agrobiodiversity conservation.

METHODOLOGY PROCESS

Using participatory research approach that involve a number of steps sequentially at different levels (macro, micro and intermediate levels) to identify policy gaps, constraints and to analyze implications of national policies for in situ agro-biodiversity conservation (Gauchan et al, 2000b). Research methods involved in-house discussion of project multidisciplinary research team members followed by secondary review, and informal and formal interaction with limited number of purposefully selected relevant key officials of national agricultural research and development institutions. In addition, focus group discussions and key informant interviews were held with farmers' groups and local community leaders of the project eco-sites to identify micro-level policy perceptions, policy gaps and identify specific incentives at the community level. Information generated were analyzed and synthesized through interaction and problem-causal analysis by the research team.

FINDINGS

A. Policy Issues and Gaps

The government agricultural policies do not address in-situ conservation of crop genetic diversity. They still tend to focus production of few uniform modern varieties of crops in favourable pockets with intensive input use and technical package approach without analyzing their consequences on on-farm genetic diversity. Present policy on biodiversity is more focused on forestry resources including wildlife than overall genetic diversity encompassing agricultural crops (Gauchan et al. 2000a). There are no policies, action plans and programmes designed to conserve, utilize and protect rich agrobio-wealth of the country.

B. Constraints to policy formulation Agricultural policies are formulated by the policy makers at the macro level without analysing their relations and consequences on micro level on-farm management and utilization of diverse genetic diversity. Some of the policy relevant to agriculture development formulated at the macro level is only partially being implemented at the grassroots level. Farmers and local communities perceive different policy interpretation as compared to decision makers in policy making level. Lack of integration of macro-level policy with micro-level issues, users are less aware of policy incentives at the field level, while policy makers are less informed about policy constraints and gaps in the implementation of the programe. Good policy

always depends on good information, and this is particularly true for crop genetic resources (Tripp and Heide, 1996).

CONCLUSIONS AND FUTURE RESEARCH ISSUES

Presently in situ agrobiodiversity conservation has not been recognized as an important part of the biodiversity conservation in Nepal. Thus, the country lacks overall agrobiodiversity policy in relation to access, exchange, trade, sustainable conservation, utilization and equitable sharing of benefits. Policies that provide incentives to farmers to continue to cultivate and maintain diverse genetic resources are lacking. There are gaps in policy perceptions, interpretation and implementation at the micro-level among local people and farming community. Policy and institutional mechanisms for public and relevant stakeholders (e.g. communities, women, and diversity custodians) participation in genetic resource management is also not well developed.

Further there is a need to create dialogue, develop public awareness and to analyze and integrate micro with macro level policy issues both horizontally and vertically for facilitating policy changes through informed decision making on policy disincentives and gaps.

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