

---

## PARTICIPATORY ACTION RESEARCH FOR CONSERVING CROP GENETIC RESOURCES: BEANS AS GENDERED CROPS IN THE ŐRSÉG-VENDVIDÉK REGION, HUNGARY

*Barbara Bodorkós, György Pataki, Ágnes Mérő, St. István University, Gödöllő, Hungary*

---

### Abstract

A Participatory Action Research (PAR) project on conserving crop genetic resources was conducted in the most western landscape of Hungary. A conventional economic valuation of agro-biodiversity project turned to PAR aiming at taking specific actions with local women farmers in order to raise awareness of their important contribution to in situ conservation of local bean landraces. The paper presents both substantial and methodological reflections on this project with particular attention to difficulties of participation of local female farmers. Their contribution to local agricultural production and cultural heritage has become more visible during the bean festival. The social need for and special responsibility of the researchers attempting to initiate ecological projects calls into question existing social relations that structure in rural areas.

### 1. Introduction

Plant and crop varieties are disappearing at an alarming rate across the globe (MEA, 2005). This process of agro-biodiversity erosion might threaten food security and the future of sustainable agriculture (FAO, 1999; Howard–Nabanoga, 2007). Exploring, conserving and using local, traditional ecological knowledge related to these resources is of key importance both for ensuring food and livelihood security and conserving natural and cultural heritage (FAO, 1999). The United Nations Convention on Biological Diversity (CBD) has adopted the conservation of crop genetic resources as an international mandate.

Home gardens, cultivated usually by women, are increasingly considered significant locales for conserving plant genetic resources. It is therefore argued that rural women, embodying special environmental knowledge, may play an important role in conserving agro-biodiversity at the local level thereby contributing to food security and food sovereignty. The Rio Earth Summit has already stressed the particular role women are playing in biodiversity conservation; the CBD also recognizes the vital role of women farmers in the sus-

tainable use of biodiversity. The Johannesburg World Summit on Sustainable Development has moved further by calling for gendered analysis of sustainability issues, including biodiversity conservation. (Chambers–Momsen, 2007; Momsen, 2007)

Gender division of labour is a key feature of farming, which varies from culture to culture (Leckie, 1996) and which itself is rooted in the concept of masculinity and femininity of a given social belief system (Howard–Nabanoga, 2007). Beans are gendered crop species in the Őrség-Vendvidék region of western Hungary, cultivated by female farmers in their home gardens, as well as significant ingredients of different types of local dishes, incorporating cultural heritage values. The concept of gendered crops refers to the cultural association between particular crop species or varieties and their producers (FAO, 2008, Howard–Nabanoga, 2007; Tsegaye, 1997). These varieties survived mainly among the poorest and marginal farming communities all around the world; those that have benefited least from modern, high-yielding plant varieties (FAO, 2008). Female subsistence farmers may hold unique knowledge of wide diversity of local species, the surrounding ecosystems and their use practices, which they acquired through centuries of practical experience transferred from generation to generation. They themselves have experimented with, selected and saved the various seeds that are adapted to the local environment and have desirable characteristics (such as ripening time, resistance to disease, cooking quality, etc.). This knowledge however is not acknowledged and in most cases remains invisible to the agricultural professionals as well as the planners and decision-makers of rural development worldwide as well as in Hungary.

Participatory action research (PAR) is a particular way of thinking about, as well as, practicing scientific inquiry that emphasizes collaborative learning and that aims for specific actions to empower local people. PAR may assist revealing the gendered nature of local knowledge systems as well as designing and implementing actions together with local stakeholders in order to change the status quo for the better. The PAR project reported here was conducted on exploring and raising awareness of locally evolved bean landraces and the related conservation role of rural women in the most western part of Hungary, the

Órség-Vendvidék region. Conducting PAR on crop genetic diversity in a rural area have become possible by revealing gender relations of agriculture and actively listening and giving voice to the old female farmers, who are generally marginalised in the creation of knowledge on rural areas.

In this article, we first explore some of the most important theoretical underpinnings of our agrobiodiversity conservation project. This is followed by the implications of these theories for the research design and implementation. We then proceed to the presentation of our fieldwork, and the specific participatory techniques applied: methodological experiences will be shared on how the various qualitative methods facilitated better understanding of the local socio-economic and ecological phenomena, contributed to the involvement of otherwise neglected female farmers in the creation of knowledge on agrobiodiversity issues, as well as helped to continue to build rapport with local people. Finally, we summarise our findings.

## **2. Agro-biodiversity, participatory conservation and gendered analysis**

The Carpathian Basin, in which Hungary is located, is characterized by heterogeneous ecological conditions and variegated geography, encompassing three climatic zones (Atlantic-alpine, continental, sub-Mediterranean). Plant cultivation activity is about eight thousand years old in the Basin. As a result of its particular agro-ecological conditions, long duration of cultivation, and traditional selection practices, a great diversity in plant genetic resources has emerged in the Carpathian Basin (Surányi, 2002). Landrace cultivation is claimed to have flourished at the turn of the XIX. century, when the highest levels of agrobiodiversity are believed to have existed in Hungary (Ángyán et al., 2003). As a consequence of the burst of plant breeding activity at the beginning of the last century and later hybridisation programmes, landraces were displaced from large- and middle-scale farming. They continued to be cultivated mainly on semi-subsistence, small-scale, traditional family farms, “home gardens,” and described as the ‘repositories of agrobiodiversity,’ by agricultural scientists (Már-Juhász, 2003). Home garden production sustains landrace cultivation by encouraging local seed saving, and the passing of farmer-selected seeds and varieties from generation to generation. In general, home gardens have also been found to exhibit a number of adaptive functions over time, such as producing plentiful supplies of food, providing a “genetic backstop” during periods of crop failure, and being spaces for experimenting with new varieties (Lope-Alzina, 2007).

Landraces, also called folk or farmer varieties, are understood as variants or population of crops that are often highly variable in appearance and which ge-

netic structure is shaped by farmers’ seed selection practices and management, as well as natural selection processes over generations of cultivations (Smale, 2006). Though plants can be different, the ratio of different looking specimen is stable in a given area to which the variety has become adapted (Márkus et al., 2003). As varieties are a result of sometimes centuries-long selection processes, they can be considered as a non-renewable resource and should be saved for future generations as well. It is strategically important to save even the less productive varieties, because they can possibly be the source of resistance genes vital when facing new diseases. They can have other characteristics that might suit future consumer demands better (Tisdell, 1999). Beyond this optional value, each variety has existence, aesthetic and heritage values as well.

The growing awareness of genetic erosion of crops has led the international community to recognize the concept of Farmers’ Rights. As stated in a FAO Conference document, these are the “rights arising from the past, present and future contribution of farmers in conserving, improving and making available plant genetic resources, particularly those in the centres of origin/diversity.” The purpose of these rights is stated to be “ensuring full benefits to farmers and supporting the continuation of their contributions” (FAO, 1989). “Customary rights” to plants are described very similarly to Farmer’s Rights (Howard-Nabanoga, 2007).

Although there are various ongoing conservation initiatives, the erosion of agrobiodiversity still does not get enough attention and this unfavourable process is continuing. Old varieties and landraces in many parts of Europe as well as in Hungary have mostly disappeared, and there are only few marginal areas where they are still in use, mainly home gardens and small plots in Hungary (Bela et al., 2006). The recently launched European Union funded agro-environmental schemes in Hungary do not give any priority to this issue either. However, it is important to note that animal livestock diversity has caught quite a lot of public attention recently, and various conservation programmes – public and private initiatives – were launched targeting the increase of Hungarian grey cattle and the Hungarian mangalica stocks.

To highlight characteristics affecting conservation policy of these varieties we have to point out that landraces have evolved and are still in change as a result of interactions with local peoples’ needs, environmental and climatic changes (Leskien–Flitner, 1997). To continue this process in situ (on site) conservation methods are proposed to be incorporated, preferably with local people producing and using their own varieties. Landraces are missing from formal seed catalogues, as they usually do not fulfill UPOV (International Union for the Protection of New Varieties of Plants) demands of distinctiveness, uniformity and stability (DUS) (Leskien–Flitner, 1997), thus they can

not be purchased legally in Hungary only through informal seed supply and exchange networks, such as neighbours and family members (Bela et al., 2006). It is proposed by more and more conservationists that in situ conservation combined with ex situ (e.g. gene bank) conservation is the most appropriate way of avoiding the loss of genetic information (Frankel et al., 1998).

Recently, there are major conceptual shifts changing the background of research on nature conservation efforts, but most importantly the management by participatory approaches (Berkes, 2003). In situ conservation can be more successfully applied and enhanced by knowing local circumstances, using the theory and methods of community development. Combining conservation goals with community development methods leads us to community-based conservation. It aims at enhancing conservation by engaging communities in nature protection issues using different tools and methods of participatory development (Campbell–Vainio–Mattila, 2003). The reason for applying this approach is to ensure and raise the legitimacy of conservation policies. Level and quality of participation generally is lower in community-based conservation projects than in participatory development projects, where participation in itself is considered valuable and an important goal of the project. There can be numerous conflicts between participation and conservation goals. Case studies both from the so-called developing and developed countries demonstrate that participation efforts that exist in natural resource management are being criticized by participatory development advocates and conservationists (Roth, 2004). The former often claim that co-management arrangements – such as community forest management or wetland management – have adopted simplistic definitions of community (Roth, 2004, Campbell–Vainio–Mattila, 2003), including people affected by a particular environmental and social issue, and have paid much less attention to unequal power relations, reproduction of social inequalities, participation, social interaction as well as gender relations.

Research has revealed that understanding agro-biodiversity as dynamic socio-ecological phenomena also requires exploring the gendered nature of local knowledge system. Consequently, rural women “have begun to be seen increasingly as embodying environmental knowledge” (Momsen, 2007: 1). Gendered knowledge varies according to the ecological and cultural setting in general and the gender roles in particular. This variation results from the different responsibilities women and men have in the household as well as their access to different spaces in local landscapes, resulting in different information and knowledge about local ecological diversity. Women are said to be responsible for and knowing more about the space around their homes, including home gardens, while men are said to be more familiar with the more

distant fields. (Chambers–Momsen, 2007; Momsen, 2007)

Some studies demonstrate the decisive role of women in seed management for home gardens (see Oakley–Momsen, 2005 case study in Bangladesh) and becoming the primary agricultural decision-makers while men increasingly work away from their communities (see Chambers–Momsen, 2007 case study in the Bajío region of Mexico). However, other research warns us not to assume that rural women automatically value and conserve agro-biodiversity by virtue of their role in household production since various socio-economic and ecological factors, operating at different scales, affect the sustainability of local varieties. In our current globalized world, values, management practices and resource systems are rapidly changing resulting in sometimes decisive changes in the social status of rural women as well as in power relations within rural household (Scurrah–Ehrhart, 2007).

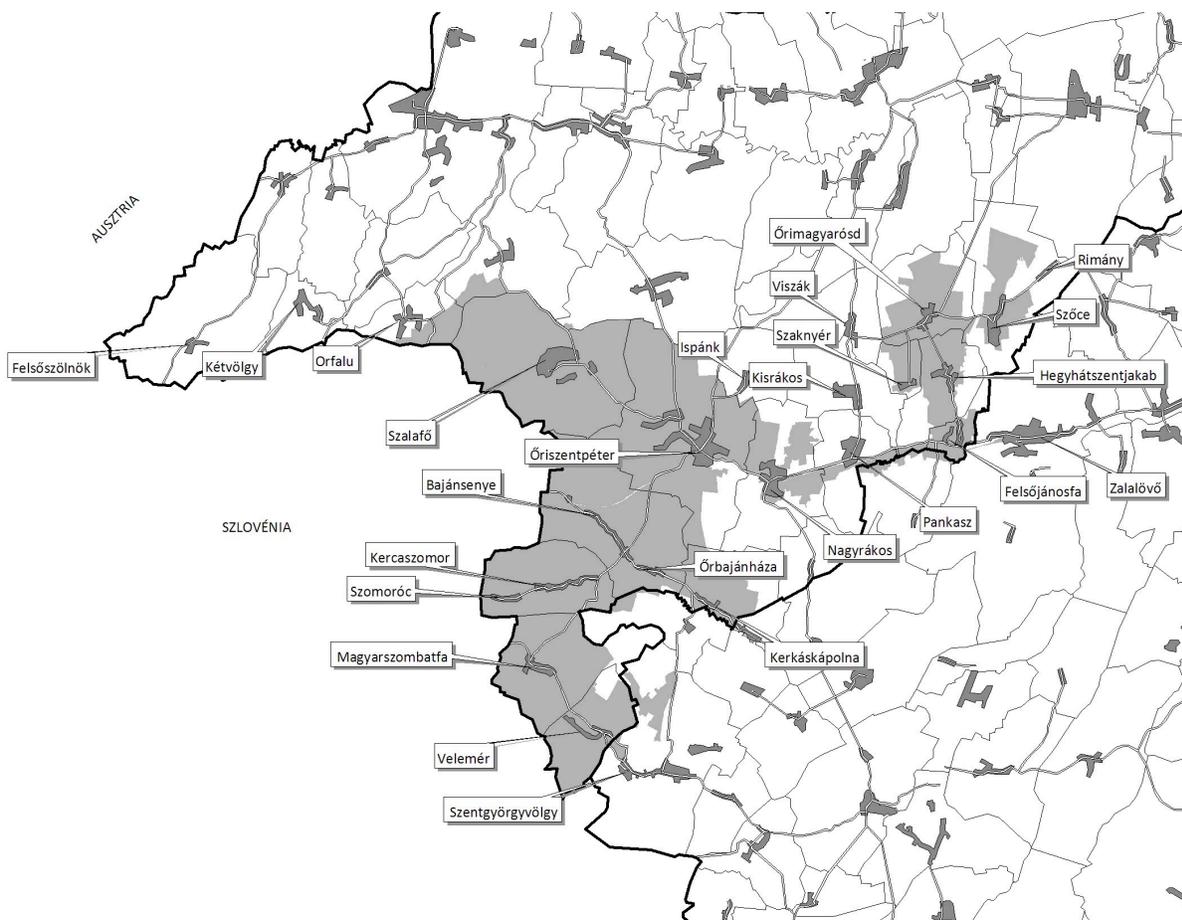
### 3. Study site in Őrség–Vendvidék

Our PAR project has taken place in the Őrség–Vendvidék region that belongs to the authority of the Őrség National Park at the Western border of Hungary. The hills and valleys created by streams, pine forests, green hayfields, peat-moss marsh and moorlands home to relict plants from the ice age, clear springs and streams, and creeks form the patchwork look like Őrség and Vendvidék landscape (NAEP, 2002). Because of the scarce agricultural potential of the region, natural resources have been used in many various ways: bee-keeping has been widely popular, the clayey soil has made good basis for pottery (Beluszky, 2005). However, the majority of the people living here have been occupied with small-scale timbering, but not in the clear-felling system, but selective cutting that is more sustainable in the long run.

(See next page, Map 1)

As its name suggests, Őrség means “defence area”, the region originally played a border-defending role at the time of the Hungarian conquest (Beluszky, 2005). Őrség is the only region in Hungary where inhabitants have continuously been living in the same place. The history of this region - traditional border defence duties suppression and segregation in the communist era - the harsh climatic conditions, and the abundance in natural resources have created a special local economy, society, culture and landscape: e.g. houses were built on the top of hills, bringing about settlements with a special ‘townscape’ called ‘szer’, which has still survived.

Vendvidék shares the major socio-ecological conditions of the Őrség, the main socio-political differ-



Map 1: The Órség National Park

ence lies in their population: the Vendvidék is populated by Slovenian minority. Even during the most repressive times of the communist regime, private ownership and consequently small-scale family forestry have remained in the Vendvidék as opposed to Őrség where all land private property was eliminated and large-scale state-owned forestry management was institutionalized. This socio-political difference, manifested in property rights, still features its consequences on the ecological conditions of woodlands: forests in the Vendvidék are more diverse in terms of species and age compared to the ones in Őrség, despite the restitution process that re-established private property to some degrees.

The particular socio-ecological history of this cultural landscape in question produced a mosaic-like landscape pattern with high biodiversity and a special, small-scale, family-based economy. Traditionally practised extensive agriculture has nurtured the diversity of crop genetic resources on farm. As traditional farming systems almost ceased to exist due to first the communist regime change after World War II and then recently capitalist regime change there are only a few remaining crop landraces that are preserved on farm; they are mainly bean landraces cultivated in home gardens by women.

After the recent regime change, economic and social changes led to weakening of local communities (increasing distrust and non-cooperative behaviour, loss of community work, etc.), loss of traditional and natural values, meanwhile the establishment of the Őrség National Park in 2002 has raised many new conflicts. In many cases, inadequate attention was paid by the National Park officials to the sensitivities, traditions and knowledge of local land users and residents. Scientifically trained nature conservationists and officials many times distrusted local knowledge, meanwhile the establishment of the National Park has brought along better income opportunities for ecotourism and agro-environmental farming. This transition phase in the region has attracted us to conduct several research projects for the past years on various topics, such as small-scale peasant forestry, protection of fruit-tree diversity, impacts of agro-environmental programmes, etc.

## **4. Research strategy: framework and methods**

### **4.1. Research framework**

PAR is a special way of thinking about scientific inquiry, as well as an attitude to the role of science in society. PAR implies that the effective actions for change are the products of knowledge, experience and practice (Chiu, 2003). The aim of participatory action research is not merely to increase understanding but also to ensure that different types of knowledge is gen-

erated at a social level, which then contributes to making specific and constructive actions. In this sense the research component of action research is a tool for action, too, not an end in itself. Often, PAR is used for crossing and bridging various disciplines, be they natural sciences and/or social sciences. For knowledge generation, participatory processes are required to involve and evolve stakeholders' perceptions and values through learning. PAR can be considered as a social learning process, requiring continuous learning and reflections on consequences of processes and policy decisions (Meppem-Gill, 1998; Meppem-Bourke, 1999).

Following the theory and methodology of PAR the researcher's twofold objective was to help local people to produce useful knowledge and action through research, adult education and socio-political action, on the one hand; and to empower local people through the process of constructing and using their own knowledge, on the other hand (Reason-Bradbury, 2001). Production of knowledge in our case was more focused on the rediscovery of local ecological knowledge rather than creating new knowledge. The reason for this is that female farmers are generally marginalised in the creation of knowledge on rural areas (Pini, 2002). Giving voice to traditional communities and marginalised groups, such as women, who have been generally neglected (Pini, 2002) contributed to the production of knowledge by making their knowledge visible and more explicit for the public in general.

The application of PAR methodology implied that the research was conceptualised as a process of mutual learning between local people and researchers. The research team used a hermeneutic-constructivist approach which aims to facilitate better understanding of the social, economic and ecological phenomena within the researched community (Tacconi, 1998). According to the constructivist approach, reality consists not only of specific facts and physical things, but also includes the ways in which the people perceive them and construct their own reality. This means that our observations are filtered through belief systems, mental models of the world. These constructs are therefore not only created through people's mind, but through reflective actions of people and communities (Reason, 1994). The emergent research design with a continuously evolving and developing conceptual framework through the fieldwork was used to be able to become receptive to local realities (Miles-Huberman, 1994).

From the researchers' point of view, the engagement with the landscape started with applying various mainstream research questions and techniques focusing on exploring the socio-economics of agrobiodiversity and small-scale peasant forestry. Over time, however, the researchers found themselves engaged more and more with the landscape and her people through an environmental education project on

protecting fruit-tree landraces. The main motivation for this project was an impressive array of fruit tree landraces identified across home gardens which have been threatened by extinction. Our wish to explore and understand human-nature relationships and interactions gradually changed to a motivation to use knowledge generated through research for something useful to local communities, to a growing commitment to participatory research methods and to a wish to re-connect local nature, society and economy. Our first project-based community learning initiative sought to build cooperative relations between local primary schools' children, their teachers, and graduate university students of agri-environmental engineering and national park experts in an attempt to map and register the local fruit trees in six villages. Local children, aged from 8 to 14, were taking photos and making drawings of the fruit trees in different seasons and also collected local tales, legends, food receipts and any other cultural aspects of old fruit trees. The project ended with a series of exhibitions, touring from the headquarter of the national park to each of the local schools, where local children presented their pictures and drawings. The other source of the PAR project reported here aimed at understanding the current and potential socio-economic role of agro-biodiversity maintained in home gardens by giving voice to the seed-saving farmers in rural Hungary. As that research was unfolding, a process of genetic and cultural erosion and the consequent loss of biological and socio-cultural diversity in the Órség region have become apparent to the researchers involved. We found that traditional bean seeds have had a very strong heritage value, e.g. it was part of the marriage gift for one's daughter, and some people produce and use certain varieties of beans for remembering to a deceased person they loved and who gave the seeds to them.

Throughout the research process, rather than directing or controlling the research process, the role of researchers was meant to be that of facilitators, offering participants an opportunity to think about and use the knowledge, values and assets of their communities (Balázs et al., 2005). However, in various parts of the process, researchers had to move back on the virtual "participatory ladder" (Arnstein, 1969) and take concrete steps on their own - such as contacting and involving more local people, putting together posters and the website of the event, providing for funding, local transport of participants of the planning group -, instead of local people so that the community event did not fail. The reasons for this will be detailed in the discussion part.

In the following, the methodological experiences will be shared on how the various participatory techniques facilitated better understanding of the local socio-economic and ecological phenomena, contributed to the involvement of otherwise neglected female farmers in the creation of knowledge on agro-

biodiversity issues, as well as helped to continue to build rapport with local people.

## 4.2. Research methods

Qualitative, participatory research techniques – including in-depth interviews, direct observation, participatory transect walks, a focus group discussion, participatory planning workshops and a 2-days environmental education community event – were applied in this PAR. Data analysis proceeded in an inductive fashion, avoiding forcing a priori theories to fit in this very specific context. The application of participatory techniques enabled the research team to negotiate the outcomes of the research with local people from whom the data were derived of (Tacconi, 1998). In the followings, the various techniques will be introduced in detail and experiences will be shared.

### 4.2.1. Focus group

The link between the above mentioned traditional research projects and the PAR project as reported here was a focus group discussion, which opened a process of deliberation about and reflection upon the value of bean landraces for local farmers and helped to continue to formulate problems and solutions together with locals.

Decisions about the recruitment of participants for the focus group were driven by the qualitative research literature. Only those small-scale female farmers were recruited for the focus group discussion who have been involved in the production and use of at least 1 type of bean landrace identified through a survey conducted by the members of the research group in the previous phase of the research (Bíró et al, 2005). Potential focus group participants were contacted personally based on a list provided by the Institute of Agrobotany (the ex situ gene bank of Hungary in Tápíósztele) for the survey. This list was then continuously modified using the snowball method and conducting short, informal interviews with female farmers being on and missing from the list. The organisers invited all suitable participants both personally and via mail. Altogether 15 participants received invitation, out of which 8 persons turned up at the focus group discussion.

Female farmer participants present at the focus group discussion were originating from 2 villages of Órség and 2 villages of Vendvidék: these were Óriszentpéter, Bajánsenye (Órség), Apátistvánfalva and Felsőszőlőnk (Vendvidék). The participants were diverse in terms of the number of bean landraces produced and used, varying from 1 to 13 local varieties. Almost all participants keep animals (mostly pigs and chicken) and are engaged in production of crops on a small scale level. One of the participants started to be involved in home gardening only since retiring, while

another one came sitting in for her mother only. Most of the participants were pensioners between the age of 55-75, however, the generation of 40ies was also represented.

The main points of the focus group guideline were production/consumption process of beans, the main concerns for seed selection, the usage practices of beans and the various activities related to beans. The focus group discussion required lots of moderation efforts to follow the lines and the specific structure of conversation of female farmers' and at the same time keep the group on topic and address all research questions. It is local female farmers of the research area who cultivate beans for private purpose to cover family consumption needs. Older female farmers experiment with various types of beans, while younger generations usually grow only few varieties, or buy them. Seed saving and exchange happens from generation to generation, from neighbours to neighbours, from friends to friends. The most important concerns for choosing certain types of beans according to our focus group results are nice taste/nice consumption value (gets easily cooked), early ripening and high-yielding varieties. Inheritance of bean landraces from parents is still valued ("we got used to these types of beans", "we swear to these types of beans").<sup>8</sup> However, this aspect is getting behind the other above mentioned aspects. Locally known beans are favoured to beans available in shops and supermarkets mostly by the older generation of female farmers. However, villagers usually still buy a significant amount of the extra bean supply available at local homes. Local bean is generally not available in local shops, as shopkeepers know that there is no significant demand for beans in the nearby villages.

#### **4.2.2. Direct observation**

The observations made at the local "Pumpkin Festival" significantly shaped the action research project. This festival was organised by a regional tourism development company. Here, local assets and skills were not mobilised, and probably as a consequence local people did not participate at all, only tourists from the capital and the nearby towns came to see the event. The main concern for the research team stemming from this experience was that the bean-festival should fully differentiate itself from the pumpkin festival and be as much community-based as possible, and should not be focused on drawing more tourists to the area, or at least this should not be given priority when designing and communicating about the programme. However, during the implementation phase local people expressed their concern for publicizing the event to tourists as well (see later).

#### **4.2.3. Participatory planning workshops**

While the focus group discussion had a clear, pre-fixed guideline and key points, after the action turn researchers applied a much-less directive approach during the two participatory planning workshops providing the opportunity for local women to direct the discussions and plan the community event in a way that is able to activate and mobilise all locally available assets; human, physical and institutional assets as well. Altogether 7 female farmers from 5 villages (the 4 villages of the focus group discussion plus one more next to Óriszentséber, called Szalafő) and 2 researchers took part in these workshops, which took place in the community house of Óriszentséber. Participants were picked up by the researchers by car, otherwise female farmers would not have been mobile enough to reach to the venue. An important moment concerning the gender dimensions of the project was when the researchers picked up one of the female farmers from Felsőszőlő as her husband also wanted to join the discussion. The female farmer proudly asked her husband to stay at home: "now I go only, my man, you are staying here."

The key element of the participatory planning workshops was to engage local female farmers in the development and implementation of the bean festival in a manner that reflects the needs, assets, concerns and aspirations of local people. Participatory planning has had many benefits including access to new ideas and a creative approach to handling potential conflicts between the various stakes and interests of the community. Based on the recommendations of these planning workshops, researchers involved more female farmers and non-farmers in the project, such as local schools, the local cultural centre, the local sport club, local craftsman and informal community leaders, etc. It was interesting to see that local ideas matched researcher's pre-conceptions on locally available assets, skills, programs and informal leaders. This could be due to the fact that researchers have been working in the area for a couple of years already acquiring a deeper understanding of the area. Female farmers in Óriszentséber and in Bajánsénye in many cases finked out of the responsibility and took tasks only related to their traditional roles, mostly related to cooking. The female farmers from Szalafő (the fifth village), became quite enthusiastic about the organisation, and they decided to have their own bean festival.

#### **4.2.4. The Bean Festival: An environmental education and a community development event**

The idea of organising a bean festival came incidentally from one of the focus group members on

<sup>8</sup> Original quotations from the focus group discussion.

the way home from the focus group meeting. This was the moment where local ideas and needs met researcher's action research approach and public policy orientation. The festival was later involving not only local female farmers and the researchers, but also local school teachers, NGO representatives, journalists, etc. A relatively high number of local visitors appeared and new and existing social networks developed during the preparation process and the festival. The local newspaper announced the festival well before the event and reported on it as well. A special website was prepared for the festival by the research team and a local programmer. Originally, researchers idea was to get the website designed together with local people, but this idea did not meet with the local's. Later on, the website was used mostly by local pensions as an advertisement to attract more tourists to the event. The website published the bean receipts pupils of the local schools collected from their parents and grandparent's, photos of the various bean landraces, and practical information on bean planting, harvesting and storage practices.

The programme of the festival was based on co-construction of the issues researchers come with – that is, protection of agro-biodiversity – and the issues defined by the local organising group – that is, the importance of local bean dishes, and of having a community gathering and a gastronomic tourism event at the same time. The programs of the festival covered all age groups and all fields of entertainment: a bean-cooking competition, family quiz show on beans, bean-story telling, a bean-artistry workshop both for children and adults, an artistic exhibition representing bean compositions, etc. The cooking competition was announced couple of weeks before the festival so that local people had enough time to create small cooking groups, collect bean landraces from all over the region or buy the necessary ingredients and cook their favourite bean dishes on spot. Researchers joined and assisted the team of the female farmers's groups and cooked together traditional bean dishes: female farmers were patiently teaching the researchers about the traditional ways of preparing bean dishes. The half-day long cooking process gave enough time for female farmers to share their stories and knowledge on bean dishes and bean planting not only with the researchers but with the visitors of the festival who were passing by the cauldrons. A family quiz show programme on beans was conducted by one of the female farmer's, a local teacher and the graduate students of the research group. In this show, local families were competing with each other not only on who knows more about bean landraces, traditional planting, harvesting and storage practices, folk stories and proverbs related to beans, but also in physical exercises, such as throwing small, so-called "beanbags," which were originally filled in with small pieces of beans. During the quiz show, participants of the festival planning group were appreciated as special local experts of beans, which

created a very warm, pleasant and appreciating atmosphere. Pupils of local school prepared for the event with special poems, folk stories related to beans, such as the famous Hungarian tale on a young boy, called Babszem Jankó, who was so small that he could not grow bigger than a piece of bean. An exhibition was opened presenting the various bean compositions of local pupils. Those who want to join neither cooking, nor the quiz show could join the handicraft workshops run by local artisans and try their hand out in preparing necklaces made of beans. The most patient ones could even try to learn the traditional, local ways of straw basket (the so-called "kópic") weaving; these baskets were originally used for storing various crops, such as beans or dried fruits. There is no festival without music and dance, therefore locals and tourist together could enjoy the shows of local folk and pop music and dance groups.

## 5. Discussion

The PAR project shifted researcher's attention to diverse and integrated agricultural systems, especially those managed by women that not only provide food but maintain local cultural heritage as well.

Although local female farmers were constructing and using their own local and indigenous knowledge on crop genetic resources and farming practices to plan and implement the festival, still it did not result in local farmer's understanding of their own power, and acting with others to develop this power (Pini, 2002). During the implementation process, researchers had to confront with issues of power that discouraged the local female farmers in taking the lead in some situations. Researchers also had to face a community which has lost its social capital and self-organizing capabilities to a great extent. Action researchers, therefore, instead of being facilitators have found themselves many times going beyond their planned role and set themselves in the role of active coordinators of the festival. A typical example of this could be that they did not dare to go outside of their comfort zone, and contact the local mayor's office in strategic organisational matters; in many cases these kinds of issues were left to the researcher's as outsiders. On the other hand, local female farmers originating from another village, Szalafő took over the stick, and realised their own power, when they decided to quit the local planning group and implement their own event in their own village, extending the whole event to a 2-day festival.

Being female in this specific rural context – except for Szalafő – was interpreted as an obstacle to reach to the level of the rural political elite and gain their support. Being a cultivator for only home gardens was interpreted as a marginal knowledge in agriculture and still it is. Women's work on farm is still seen more

as only complementary to that of male farmers. We have to explain here the different behaviour of female farmers in Szalafő and in the rest of the villages. One probable explanation for this difference is that the freshly elected mayor of Óriszentpéter (the centre town of the festival), whom the female farmers should have approached to support the festival, is not originating from the region, but from the capital of Hungary. Outsiders (“gyűttment” is the special expression in Hungarian) in this part of Hungary are still quite heavily “stigmatized”, and not really considered part of the community. This condemnation generally results in misunderstandings, non-communication or conflicts. Furthermore, the respective mayor is considered as a very autocratic person by locals; most probably this also led female farmers to avoid any kind of potential interaction with a male, outsider mayor in a public place. Meanwhile, the self-organising capabilities of female farmers of Szalafő were already much better at the beginning of the organisation process than that of the other villages’: in this village the pensioner club unites local elderly people for quite many years, furthermore, the strong presence of eco-tourism already opened up even older female farmers to the public; they are used to negotiations and cooperation. This latter explanation draws our attention to the importance of local capacity-building which encourages gradual sharing of ownership of a participatory project.

The community-based event was also meant to encourage shifting the nature conservation policy of the national park to a more participatory approach, and get female farmer’s knowledge acknowledged and valued. However, this knowledge remained invisible to and ignored by the nature conservation professionals of the Órség National Park as they did not participate in the event, nor they contributed to the implementation of the festival.

Using PAR methods researchers indirectly created awareness on traditional knowledge and helped the community to rediscover part of their history and cultural heritage. The project encouraged the community to redefine its local knowledge, cultural values through an environmental education and community development event. The participatory process aiming at in situ conservation of bean landraces let us enter the field of community development: local knowledge, assets (human, physical, cultural, etc.) and skills needed to be collected and used to generate action. The process retied community bonds inside and among the participating villages: female farmers visited each others’ events, new friendships were born, etc.

Researcher’s aim was to get present intensive agricultural and natural science knowledge contested. Some of these conservational and environmental education impacts could be traced directly already some months after the festival: participants exchanged bean seeds, have planted more landraces of beans, and exchanged bean recipes. The event has become a success-

ful community event with a pleasant atmosphere and with high level of local participation. Informal local community leaders were discussing about the possibilities of continuing this initiative and creating a new tradition of it. However, two years after the festival we can claim that this did not happen, there were no locals taking over the organising tasks after researchers left. Here, we would like to stress again the role of local capacity-building in an area where previously unorganised communities and people were expected to plan and work together in a cooperative way.

Local people seem to perceive traditional values (e.g. architecture, cultural landscape, biodiversity, local cultural traditions, etc.) as assets attracting tourists, thus mostly as a source of income. In this sense, they seem to be distanced from their own heritage. Traditional bean varieties are one of these heritages with practically no potential for tourism. Organising an event around this topic was bound to be a local community event. Researchers – again going beyond the role of facilitator – emphasised this local aspect by choosing the site of the festival: the local cultural centre that is used mostly by Órség-born people and not tourists and outsiders. A PAR project requires a collaborative research problem definition relevant not only to researchers but to locals: negotiation needs to take place about the issues researchers come with and what local people define as important. As part of the common redefinition process between researchers and local people, the event in some ways has still become more of a new gastronomic event, and created a new colour on the spectrum of the local tourism programme offers.

Conserving, exploring and using traditional knowledge, which could be a source of survival strategies of local community and conservation strategies of environmental resources, is a very recent issue. Empowering local people through the process of constructing and using their own knowledge is an important message for the scientific community that it should make big efforts to “conveying” its messages to the public in an adequate manner using PAR processes.

As scientifically trained researchers we have learnt amazingly lot from local people: on local culture, knowledge, values, webs of relationships and kinships, etc., in short on the way of living in peripheral small villages. A close and friendly relationship was built with local people, which has made the whole research very much enjoyable and fun.

## 6. Conclusions

This article illustrates the use of a particular PAR approach for protecting crop genetic diversity in a particular region of Hungary. The bean festival, as the main action of the PAR project, created a communicative space, however temporary it has been, that was

empowering in a sense that female farmers could co-construct, use and be proud of their own, unique knowledge about the different qualitative attributes and utilities of beans. They could make themselves and their wealth of non-documented knowledge visible in the local community. Their contribution to local agricultural production and cultural heritage has become more visible during the festival. Questions still remain, however, about the social need for and special responsibility of the researchers attempting to initiate ecological projects that, at the same time, call into questions existing social relations that structure communicative spaces in rural areas.

Protection of beans as gendered crops in the Órség region have become embedded in traditional division of labour, and in traditional power structures between local people and local government. If PAR researchers want to see real change in the protection of agro-biodiversity and in the lives of structurally disadvantaged groups of society broader power and institutional structures in a given socio-political context should also be taken into account. To support these changes, recognition and valuing women farmers' knowledge, skills and practices on a national agricultural policy-level and at the regional level of the Órség National Park have yet to come.

### Acknowledgments

The research design and the implementation of the research is a result of a teamwork, credit is due to all members of the research team for their work: Bálint Balázs, Györgyi Bela, Eszter Kelemen. Special thanks to Eszter Kelemen for her detailed comments on this article. We are also grateful to our graduate students, Orsolya Kovács, Zsófia Perényi and Dalma Somogyi who were involved in the organization of the bean festival. We are all indebted to local people, primarily to our co-researchers, the female farmers, Mrs. Lászlóné Albert (Iréne), Mrs. Károlyné Donczecz (Mária), Gömbös Vilma mama (Mrs. Jenőné Panker), Mrs. Jánosné Horváth (Éva), Ms. Ibolya Király, Mrs. Irén Mákosné, Mrs. Anna Udvardy Nagyné (Nusi néni), Ms. Annuska Ropos, Mrs. Józsefné Szabó (Juci mama), Mrs. Sándorné Törő (Zsuzsi), Ms. Borbála and Júlia Zrinszki. They made our time nice and fun and provided us with a memory never to forget. All errors and omissions are the sole responsibility of the three authors.

### References

Arnstein, S. R. (1969): A Ladder of Citizen Participation. *Journal of the American Planning Association*. 35(4): 216-224.

- Ángyán, J., Tardy, J. Vajnáné Madarassy, A. (2003): Védett és érzékeny természeti területek mezőgazdálkodása. (Agriculture in Protected and Environmentally Sensitive Areas). Mezőgazda Kiadó, Budapest
- Balázs, B., Bela, Gy., Bodorkós, B., Milánkovics, K. and Pataki, Gy. (2005): Preserving Bio- and Socio-diversity through Participatory Action Research. *Living Knowledge: International Journal of Community Based Research*, 5:11-13.
- Bela, Gy., Balázs, B., Pataki, G. (2006): Institutions, stakeholders and the management of plant genetic resources on Hungarian family farms. In M. Smale (Editor) *Valuing Crop Biodiversity: On-Farm Genetic Resources and Economic Change*. CABI, Wallingford, 251-269.
- Beluszky, P. (2005): Órség – Vendvidék – Felső-Rába-Völgy (Órség – Vendvidék – Upper-Rába-Valley). *Dialóg Campus*, Pécs
- Berkes, F. (2003): Rethinking Community-Based Conservation. *Conservation Biology*, 18: 621-630.
- Biol, E., Bela, G., Smale, M. (2005): The Role of Home Gardens in Promoting Multi-Functional Agriculture in Hungary. *EuroChoices*, 4(3): 14-26.
- Campbell, L. M., Vainio-Mattila, A. (2003): Participatory Development and Community-Based Conservation: Opportunities Missed for Lessons Learned? *Human Ecology*, 31(3): 417-437.
- Chambers, K.J., Momsen, J.H. (2007) From the kitchen and the field: Gender and maize diversity in the Bajío region of Mexico. *Singapore Journal of Tropical Geography*, 28: 39-56.
- Chiu, L.F.: Transformational potential of focus group practice in participatory action research. *Action Research*, 1(2): 165-183. FAO (1989): Extract of the Twenty-Fifth Session of the FAO Conference, Rome, 11-29 November 1989 [online] URL: <http://www.fao.org/docrep/X0255E/x0255e03.htm> downloaded 22nd April, 2008
- FAO (1999): SD Dimensions: Environment: Environmental conventions and agreements [online] URL: <http://www.fao.org/sd/EPdirect/EPre0080.htm> downloaded 19th April, 2008
- FAO (2008): Women: Users, preservers and managers of agro-biodiversity. [online] URL: <http://www.fao.org/FOCUS/E/Women/Biodiv-e.htm> downloaded 21st April, 2008

- Frankel, O.H., Brown, A.H.D., Burdon J.J. (1998): *The Conservation of Plant Biodiversity*. Cambridge University Press, Cambridge
- Howard, P.L., Nabanoga, G. (2007): Are there customary rights to plants? An inquiry among the Baganda (Uganda), with special attention to gender. *World Development*, 35(9): 1542-1563.
- Leckie, G.J. (1996): Female farmers and the social construction of access to agricultural information. *Library and Information Science Research*, 18(4): 297-321.
- Leskien D., Flitner M. (1997): Intellectual Property Rights and Plant Genetic Resources: Options for a Sui Generis System. *Issues in Genetic Resources*, 6: 1-84.
- Lope-Alzina, D.G. (2007): Gendered production spaces and crop varietal selection: Case study in Yucatán, Mexico. *Singapore Journal of Tropical Geography*, 28: 21-38.
- Már, I.-Juhász, A. (2003): Tájtermesztésben hasznosítható bab (*Phaseolus vulgaris* L.) egyensúlyi populációk agrobotanikai vizsgálata (Agrobotanic research on bean landraces). [online] URL: <http://www.date.hu/acta-agraria/2003-10/mar.pdf> downloaded 30th April, 2008.
- Márkus F., Gyulai F., Kondora C., Ács S. (2003): Extenzív gazdálkodási rendszerek. In Ángyán J., Tardy J., Vajnáne Madarassy A. (Eds.) (2003): 226-241.
- Meppem, T., Gill, R. (1998): Planning for sustainability as a learning concept. *Ecological Economics*, 26: 121-137.
- Meppem, T., Bourke, S. (1999). Different ways of knowing: a communicative turn toward sustainability. *Ecological Economics*, 30: 389-404.
- MEA (2005) [online] URL: <http://www.millenniumassessment.org> downloaded 21st April, 2008
- Miles, M.B., Huberman, A.M. (1994): *Qualitative Data Analysis: An Expanded Sourcebook*. Sage, London.
- Momsen, J.H. (2007): Gender and agrobiodiversity: Introduction to special issue. *Singapore Journal of Tropical Geography*, 28: 1-6.
- NAEP (2002): Órség-Vendvidék Environmentally Sensitive Area [online] URL: <https://www.nakp.hu/tersegi/orseg.htm> downloaded at 2nd September, 2005
- Oakley, E., Momsen, J.H. (2005): Gender and agrobiodiversity: a case study from Bangladesh. *The Geographical Journal*, 171(3): 195-208.
- Pini, B. (2002): Focus groups and farm women: opportunities for empowerment in rural social research. *Journal of Rural Studies*, 18: 339-351.
- Reason, P., Bradbury, H. (editors) (2001): *Handbook of Action Research. Participatory Inquiry & Practice*. Sage, London
- Roth, R. (2004). Spatial organization of environmental knowledge: conservation conflicts in the inhabited forest of northern Thailand. *Ecology and Society*, 9(3): 5. [online] URL: <http://www.ecologyandsociety.org/vol9/iss3/art5> downloaded at 3rd May, 2005
- Scurrah-Ehrhart, C. (2007): Economic vulnerability, beer and HIV/AIDS: The struggle to sustain farmer livelihoods and indigenous sorghum varieties in eastern Uganda. *Singapore Journal of Tropical Geography*, 28: 71-89.
- Smale, M. (2006): Concepts, Metrics and Plan of the Book. In: Smale, M. (ed.) *Valuing Crop Biodiversity*. CABI Publishing, Wallingford, UK.
- Surányi D. (2002) Tájfajták a Kárpát-medencében (XVIII. sz. – 1950). (Landraces in the Carpathian Basin). *Agrártörténeti Szemle*, 321-406.
- Tacconi, L. (1998): Scientific methodology for ecological economics. *Ecological Economics*, 27:91-105.
- Tisdell, C. (1999): *Biodiversity, Conservation and Sustainable Development*. Edward Elgar, Cheltenham, UK.
- Tsegaye, B. (1997): The significance of biodiversity for sustaining agricultural production and role of women in the traditional sector: the Ethiopian experience. *Agriculture, Ecosystems and Environment* 62:215-227.
- Vellvé, R. (1992): *Saving the seed—Genetic diversity and European agriculture*. Earthscan, London.