



Home garden and rural farming communities in Nepal

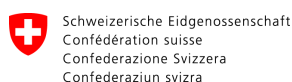
# Promoting gender equality, social inclusion and biodiversity conservation in Nepal's home gardens

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## Background and context

Home gardens have traditionally played an important role in the production of food, fodder, fuel, medicines, spices, flowers and building materials throughout Nepal. These small areas of land close to the homestead—often incorporated within a larger farming system—play a big role when it comes to improving dietary diversity, bringing in extra income, and improving family well-being through the use and conservation of biodiversity. Due to their smaller size, however, home gardens have often been overlooked as a way of improving the nutritional diversity and livelihoods of poor rural communities.

The maintenance and management of activities in home gardens are strongly associated with women in the context of Nepal, as in many other parts of the world. Men and women differ in access to and control over home garden resources and participation in decision making, with fewer opportunities and decision-making possibilities available to women than men.

Bioversity International, the Nepalese LI-BIRD NGO, and the Swiss Agency for Development Cooperation (SDC) led a project from 2002 to 2012 in Nepal's mid-hills and Terai<sup>1</sup> to promote technologies, approaches and methods for sustainable on-farm management of plant genetic resources and to improve the food security, nutrition and income of resource-poor farmers through the use of home gardens. The Home Gardens project was a successful example of increasing production, consumption and income of the rural poor, and has made an

important contribution to strengthening the capacities of farmers and promoting more equitable gender relations. These successes contribute to a number of the Aichi Biodiversity Targets, including Target 7 (promoting sustainable management and conservation of agrobiodiversity), Target 14 (providing essential services that contribute to health, livelihoods and well-being) and Target 18 (leveraging traditional knowledge of indigenous and local communities and promoting greater participation of vulnerable groups, especially women).

## Strategies employed and key activities

The project was carried out in three different phases. Phase I (2002–2005) focused on villages in four districts of Nepal to promote



Home gardener in her thriving garden in Nepal

technologies and methods for the sustainable management of home gardens. Phase II (2006–2008) focused on scaling up the approach and expanded the interventions from four to thirteen districts. Phase III (2009–2013) saw the project expand into sixteen districts, covering other ecologically and socially distinct regions in Nepal.

Participation in the study was voluntary and it included farmers from various socio-economic, ethnic and socio-cultural (caste) backgrounds, including farmers from disadvantaged groups (indigenous and *Dalit* communities). Fifty-nine percent of the participants were women, 40% were farmers from disadvantaged groups and 84% of participants were women from indigenous and *Dalit* communities.

The methodology to evaluate the project outcomes involved both quantitative and qualitative approaches. In a first instance, this included household surveys, focus group discussions, stakeholder interviews, direct field observations and in-depth interviews and case studies. Comparisons were made before and after the project, as well as between participating and non-participating households to analyze changes in livelihood, nutrition and homestead biodiversity. Additionally,

in order to assess any spillover effects, non-participating households within project intervention villages were consulted.

In a second instance, a follow-up qualitative evaluation helped understand exactly how, and due to which specific interventions and facilitating factors, the initiative was able to foster greater equality between women and men of different age, and sociocultural backgrounds, and how this affected the management of plant biodiversity. The fieldwork lasted five days in two project villages in different agro-ecological zones. Three qualitative tools were used in each site, adapted from the CGIAR-led global comparative study “GENNOVATE<sup>2</sup>: Enabling Gender Equality in Agricultural and Environmental Innovation” methodology:

1. Eight key informant interviews with local women and men elders and community leaders to generate a historically informed profile of each study village.
2. Ten group sessions, each with eight to ten participants segregated by gender, ethno-religious group and status of participation in the Home Gardens project. Tools such as the

‘Ladder of Life’ from GENNOVATE were used to assess local men’s and women’s perception changes in well-being and gender equality since the inception of the Home Gardens project.

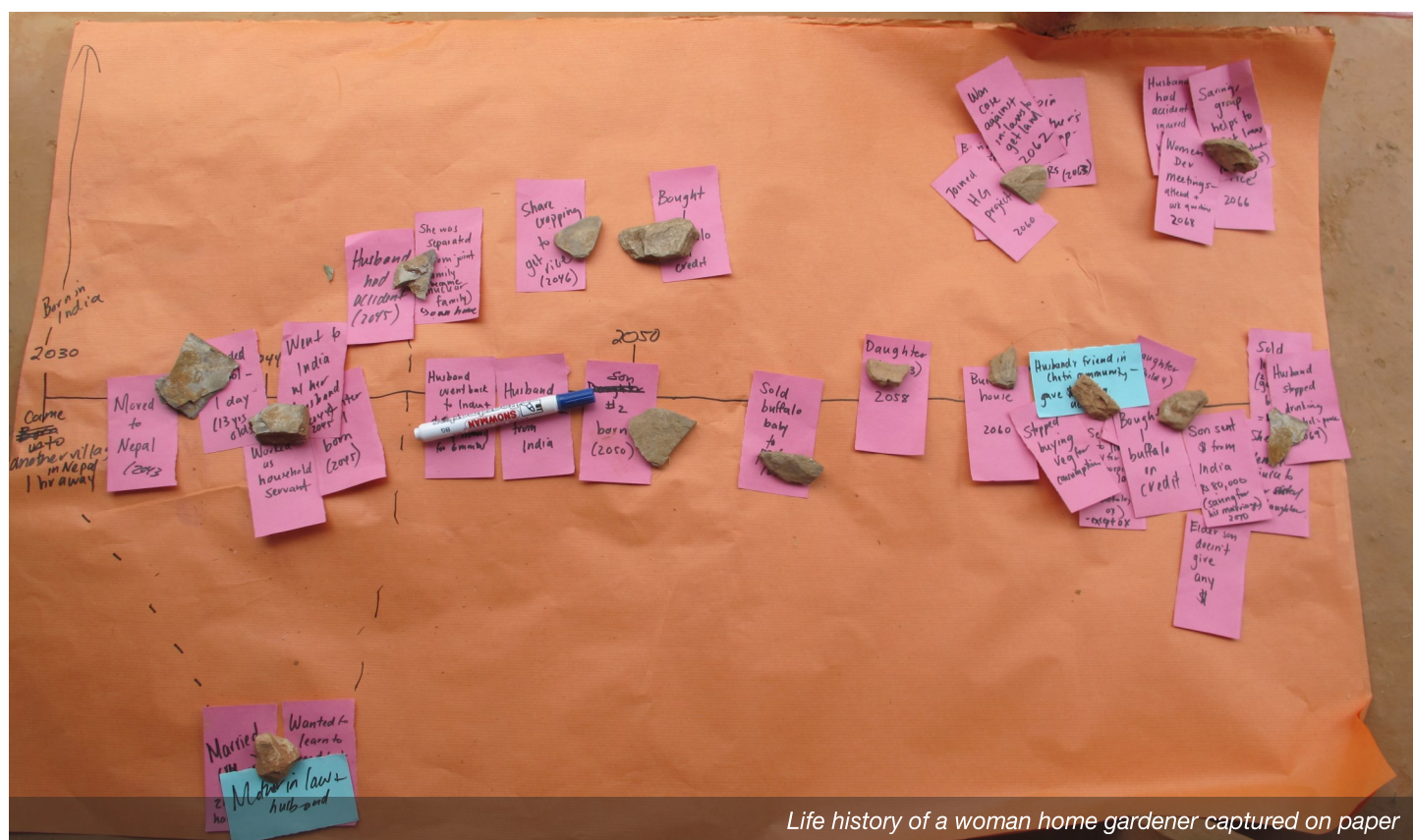
3. Twelve in-depth oral histories with women and men from different ethno-religious groups who had participated in the Home Gardens project, using a timeline tool.

In total, 164 households, and 84 non-participating households were surveyed in the project.

## Results

### Biodiversity impacts

Biodiversity increased within the home garden of participating households, with an increase from 40 to 66 species under cultivation. Farmers now maintain a higher plant diversity in home gardens and cultivate a greater range of vegetables, fruits, spices, medicinal herbs and fodder. Spillover effects were evident in non-participating households who were based in project villages, where the level of species diversity found was 14–29% higher than in villages with no participants. Such spillover effects can be seen as a result of the informal sharing of seeds, plants and information within communities.



Life history of a woman home gardener captured on paper



Focus group with elder men and project facilitator in Nepal

### Socio-economic impacts

By increasing plant diversity and density, using higher yielding varieties, and adopting new technologies to allow cropping outside of the regular seasons, the yield from home gardens increased from 300 kg per year to as much as 900 kg per year in participating households. This is clear evidence of how production has broadened food choices and improved the quality of fresh and organic food available within the household.

A large proportion of the food produced in home gardens is consumed at home. The overall consumption of home garden food doubled among project households, from less than 200 kg to over 400 kg per year increasing the potential nutritional benefits.

About 60% of project households were involved in selling home garden products at farm gates and markets, compared to only 19% of non-participating households. Due to an increase in production and biodiversity, quantity of sale grew as well—from 100 kg of produce to 400 kg per household per year. This has

significantly increased the income potential from the sale of home garden produce—on average, sales now amount to US\$ 110 per annum compared to US\$ 25 for non-participating households.

The project made a significant contribution to the capacity enhancement of farmers and encouraged social inclusion and gender equality. Participant farmers reported that they felt they had increased their ability to voice their opinion in their household and in local community groups, improved their leadership skills, and increased their level of awareness, skills and capacity to access and demand new information, knowledge and technical services from external sources.

Women from participant households and women and men from indigenous and *Dalit* communities reported having increased their decision-making capacity in their own households and community. Women increased their attendance and participation at project meetings, increased mobility and improved their capacity to take a more active role, both in decision making and financially, in the maintenance and use of home gardens. Earning

small amounts of income for the first time increased participant women's position relative to others in their households. *Dalit* women expressed how having an income allowed them to 'have freedom' since they often relied on their husbands for money; it also allowed them to consult with their husbands about their activities and finances.

### Sustainability and replication

A qualitative study of the Home Garden project was conducted to further analyze how the project impacted local livelihoods and resource management practices. There is significant value added by coupling a quantitative approach with an in-depth qualitative approach to project evaluation. Qualitative research can generate essential information to contextualize project impacts within larger socio-economic changes, understand change processes, capture unanticipated project outcomes, examine spillover effects and identify local needs and interests that can guide future actions.

For instance, some of the spillover effects included an increase in new seeds and seedlings from neighbouring villages, and a better



*The next generation of home garden farmers in Nepal's mid-hills*

understanding of local interests and needs to consider for planning future initiatives. In term of socio-economic changes, most of the participants noted how better relations were created with other castes and groups.

The success of the Home Garden project was bolstered by wider developments that were simultaneously revolutionizing the community's socio-economic and ecological conditions. Over the previous 15 years many changes took place in some of the project villages, such as in Gulmi District where the introduction of a paved road helped to bring electricity, water, machinery and telecommunications to the villages, as well as improved marketing and educational opportunities. These changes especially helped women by freeing up time that they could now invest in their home gardens.

The initiative contributed to recent major drivers of change in gender norms, such as formal education of girls and the feminization of agriculture. Future steps would be to work with schools and develop innovative approaches to interest young people in home gardening, biodiversity conservation and healthy eating. The increase and availability of telecommunications technologies provide for new possibilities for disseminating information and innovations around food security and sustainability.

#### Notes

<sup>1</sup>Lowland region in southern Nepal

<sup>2</sup> A cross-CRP, global comparative research initiative which addresses the question of how gender norms and agency influence men, women and youth to adopt innovation in agriculture and natural resource management (NRM).  
<https://gender.cgiar.org/network-focus/gennovate/>

#### Key Partners

Bioversity International, Malaysia  
 LI-BIRD  
 Swiss Agency for Development Cooperation

#### Suggested readings

<https://www.bioversityinternational.org/e-library/publications/detail/home-gardens-in-nepal-1/>

<https://www.bioversityinternational.org/e-library/publications/detail/home-gardens-in-nepal/>

<http://www.bioversityinternational.org/news/detail/evolution-of-gender-relations-among-nepalese-farmers/>

All pictures: Bioversity International/M. Elias except for the title picture (Bioversity International/B. Sthapit)



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