Methodology

Orientation

The two project staff arrived in the village of Benigaon at the start of the monsoon, and they began by building a rapport with village women and men while introducing the Project's objectives and activities to them. By identifying, then motivating villagers to take action to address some common problems of the villages, such as a leaking water tank, the staff were able to win their confidence. Only then did they select sample households for research studies.

At this time, the staff drew up a cropping calendar, to learn about and record the various farming operations carried out throughout the year (Figure 1).

Figure 1

Annual Crop Calender: Farming Operations at Benigaon and Ranagoan

Crops	Apr-May Baishak	May-Jun Jestha	Jun-Jul Asadh	Jul-Aug Saun	Aug-Sep Bhadra	Sep-Oct Ashwin	Oct-Nov Kartik	Nov-Dec Mangsir	Dec-Jan Poush	Jan-Feb Magh	Feb-Mar Fagun	Mar-Apr Chaitra
Maize	SO	WD/ED			HV					LP	LP	SO
Uphill Rice	SO	Firstwd	Second WD		HV					LP		SO
Rice Bean				WD				HV				
Millet				TP	WD			HV				
Cowpea				SO	WD		HV	HV				
Soyabean			SO	WD								
Mustard (*Tori*)					LP/SO		HV					
Horsegram (*Gahath*)			ED/SO	WD				HV				
Black gram				SO	WD							
Wheat							LP					HV
Buckwheat					BD			HV				
Rice		SP		TP	WD/ED							

LP	Land Preparation	**TH**	Threshing
TP	Transplanting	**SP**	Seed Preparation
BD	Broadcasting	**SO**	Sowing
E/D	Earthing/Digging Lightly	**HV**	Harvesting
WD	Weeding		

Time Allocation Studies

The time allocation study (TAS) method involves establishing a schedule of visits to households on random days throughout a given time period, at random times throughout the day. Researchers visit the specified household at the appointed hour of the appointed day and record what each member of the family is doing. Age, sex, and activity are the most critical factors to record, but other information collected can also be noted down during the visits. Project staff visited random houses at random times in addition to visits at scheduled times.

Through this method of direct and instantaneous observation, reliable data can be gathered, and villagers are not required to rely on their recall of events of the previous day. It also allows for the incorporation of subtle or unexpected aspects of farmers' behaviour (Colfer 1994). Preferences, constraints, and comparisons amongst members of various ethnic groups were also elicited by using this technique.

The first field activities began with an in-depth baseline study of the lives of the women of Benigaon and Ranagaon - the monsoon, during their busiest season, is an excellent time to start recording the activities of both men and women. Time Allocation Studies were made of 16 selected households, giving detailed data on the household and farm responsibilities of men, women, children, and elders throughout the day over a one-month period. Multiple tasks being executed simultaneously-a common occurrence in the case of women — with reproductive and nurturing responsibilities were noted where found. Information was also collected on which duties could be shared by members of both sexes and which are exclusively the domain of men or women. The time allocation survey was repeated in October to learn of work patterns during the harvest season.

Households selected for the study included equal numbers of three different ethnic groups inhabiting the villages - *Magar*, *Gurung*, and *Newar* - to document ethnic differences in the sharing of labour amongst male and female household members.

Detailed information collected during this exercise informed the staff of agriculture-related and other problems faced by women which could be addressed through the selection of technologies to be introduced to the

women from the Kit as well as other sources. It also allowed them to produce a cropping calendar for the year's agricultural activities.

Indigenous Knowledge Study

Throughout the Hindu Kush-Himalayas and other regions of the world, various ethnic groups occupying different agro-ecological zones have generated vast bodies of knowledge related to the management of their environment. Until recently, government planners and scientists have been ignorant of this knowledge, or have ignored its significance.

Indigenous knowledge (IK) is generally passed on through word of mouth and provides the basis for decisions related to land use, agriculture, natural resource management, health, food preparation, education, and so on. Unlike a static body of wisdom, IK consists of dynamic insights and techniques gained through processes of trial and error in response to changing environmental and socioeconomic circumstances and opportunities reflecting perceptions as well as technical knowledge. These knowledge systems may be embedded in epistemologies and belief systems, usually naturalistic, that differ radically from those of scientific systems. Both the quantity and quality of IK systems can vary greatly amongst community members, depending on age, gender, profession, social status, and intellectual capacity.

Through recording, understanding, and assessing indigenous knowledge, including perceptions of change, persons outside indigenous societies can gain some inside perspective on how farmers' decisions are made so that strategies to lend assistance to them may be improved. Starting any project with an assessment of existing local knowledge and practices makes good sense for effectiveness and efficiency.

The participation of community members in development processes is enhanced through the elicitation of indigenous knowledge. The very process of collecting such information requires that researchers and development workers approach local communities with a high degree of respect for their knowledge. This process breaks down the hierarchy of status that traditionally exists between formally-educated development agents and informally-educated local persons, allowing real communication to occur between the two groups. This is particularly important to gain the real participation of rural women.

Searching for indigenous knowledge necessitates that researchers acknowledge the role that different members of a household or community

play and the accompanying knowledge that is related to those roles. Women, for example, usually have significant knowledge about agroforestry, medicinal herbs, animal husbandry, and so on; which is almost always overlooked and discounted by outsiders who may be conducting research on those very topics. Once roles and responsibilities have been clarified through Time Allocation Studies, however, it becomes clear who holds the knowledge relevant to the tasks associated with the gender-prescribed tasks.

Through the process of studying IK systems, local people also reflect on their own knowledge and identity vis a vis outsiders. Their daily practices, symbols, cultural norms, and ways of knowing may take on a new dimension as they are validated by outsiders who previously labelled them as 'backward' and worthless in comparison to western scientific systems of knowledge. Reflection on their own IK can enhance an individual's and community's pride - a fact that is particularly important in the process of empowerment for illiterate women who lack confidence in their abilities.

Within the two villages of the Project area, a survey of the indigenous knowledge of women related to agriculture and natural resource management was conducted at a time between planting and harvest seasons, when women had more free time for discussion.

Some methods of Participatory Rural Appraisal (PRA) were used, such as mapping, slip sorting for preference ranking of fodder species, and a transect walk to identify trees and plants and learn of their uses.

In-depth informal discussions were also held with young and old women on their perceptions of changes arising from development and environmental degradation. The women agreed that, in some ways, life was simpler when money was not a necessity some 40-50 years ago but that the hardship of losing infants and family members because of inaccessible health care had made life difficult.

Training

Technical Training for Women

Training workshops were held in the village during the 'slack' season to introduce some 30 topics (see annex for list) to 24 women selected for their interest and enthusiasm. Yet, the first workshop was attended by 55 women who were anxious to observe the first workshop to ever be held in the village.

Workshops were broken up into two sessions, held a month apart, so that women would not receive too much new information at once and to make them short enough so that even the busiest women could attend.

Training was held in an informal way, to encourage shy women to feel comfortable about asking questions. Guest speakers were invited from outside, which made the women feel that these were important events. Some village male leaders also attended these training programmes, and they sat at the back and occasionally spoke words of encouragement or admonishment. Because almost all of the women were illiterate, the project team relied on verbal and pictoral teaching methods and tried to move at a slow pace that could be followed by persons who are unaccustomed to long periods of sitting and listening. When possible, the team used actual demonstrations to introduce new topics. At the conclusion of each training workshop, the women would sign up for follow-up training on topics of interest to them. In this way, we were able to learn which ones they deemed useful enough to try out in their own fields and homes.

Additional topics of potential use to the women were introduced by an appropriate technology NGO based in Kathmandu. Instructors from this group presented demonstrations of a smokeless *chulo* and solar cooker. They subsequently offered excellent training on smokeless stove construction for seven male and female participants.

Discussions on various village problems were carried out during both workshops, leading to the eventual outcome of the villagers working together to construct a stone wall for the school and to improve the walkways.

Following the workshops, the required material inputs, intensive training, and opportunities for hands-on experience were then provided by the staff on the participants' own farmlands, often in groups. Sometimes training had to be repeated a few times to make sure that the technology was being correctly practised by the women. Through group sharing, they were able to speed up the process of trial and error learning. Project staff encouraged trainees to alter the practices according to their own ideas, but they did not observe any such modifications.

Leadership Training for Men

When it was realised that a lack of strong leadership in the villages was contributing to community conflicts that were affecting the participation of

women in our project, it became clear that village leaders, who are males, could benefit from a leadership training course. A Kathmandu-based NGO with skills in leadership training was contracted to provide two day's participatory training to prompt residents to analyse their situation and arrive at solutions to problems that could be developed using their own resources instead of waiting for a donor agency. This was a useful exercise that encouraged villagers to work together to control free grazing and, hopefully, to build a water system in the near future.

Although attended by a few females as well, this training course was perceived as an activity for the men of the villages and hence served to soften their criticism that the Project was not providing them with anything. A key point discussed in the training was related to the importance of men's support for the development of their womenfolk, and the ways in which the entire family would benefit from this. Support for the women's activities, including allowing them to leave for a three-day tour, came much more easily after this workshop.

Women Farmer - To - Farmer Exchanges

Ten of the most active women, along with two village men, made a trip to visit the village of Lwang, within the Annapurna Conservation Area, where a group of women had formed to undertake development activities. There, and in another village along the way (Yampaphant), the group was able to observe farms on which agricultural technologies which had been introduced in the Gorkha workshops had been demonstrated. The chance to see these new practices with their own eyes was key to allowing them to fully understand the impacts of these. But most valuable to them was the opportunity to talk to women of the Mothers' Group, who explained how much could be accomplished by working together, to build footpaths, start plantations, establish daycare centres, set up savings' schemes, and so on. This visit motivated the Gorkha women to start their own such groups immediately upon return to their home villages.

Three experienced local female staff of a Nepali NGO, which operates a permaculture farm in Nepal's far west, came to Benigaon to act as resident trainers for the Gorkha women for two months. These women, with skills in vegetable gardening, fruit tree propagation, pest management, agroforestry, and compost-making, were able to easily communicate with the Gorkha women and guide them with extra instruction. The Gorkha women felt comfortable in communicating their difficulties to these other village women

from Jajarkot, and they felt less shy about asking questions than they did with the male agriculturalist.

Assessment

At the close of the project period, a participatory evaluation process was followed, allowing women to express their perceptions through illustrations, drawn by themselves, of the new technologies. Although requested to draw pictures of the technologies separately, it is interesting to note that all participants chose to represent the technologies in an integrated fashion, in conjunction with other elements of their households and farms. This drawing exercise also served as a review session for the participants and gave them more experience in public-speaking during the presentation.

At the same time, small group discussions were held on the reasons for liking or disliking the technologies. This informality allowed all women to contribute their thoughts — a rare opportunity for development workers to listen to the frank opinions of women, giving reasons for accepting or rejecting agricultural and mechanical technologies.

Dissemination

The Project culminated in a document published by ICIMOD, "Agricultural Technologies Selected by Farm Women in Nepal", listing prioritised technologies and the reasons for their selection or rejection by the women of Gorkha. A seminar held in ICIMOD was attended by three Gorkha villagers and 40 representatives of the Department of Agriculture, staff, NGOs, researchers, and other development agencies.