

Marketing medicinal teas in Northern Ecuador

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In the northern highland sierra of Ecuador, marketing of medicinal teas on a micro-enterprise and supplementary income level offers an opportunity to apply indigenous knowledge to sustainable grassroots development. At the same, this type of project promotes in situ conservation of both indigenous knowledge and biodiversity. This article presents and discusses a project that is currently achieving successes and holds more promises for the future.

Highlights

An enlightened approach to micro-enterprise development that puts a direct monetary value on indigenous knowledge and biodiversity, is a way to maintain in situ conservation of both.

Marketing of medicinal teas is a direct application of indigenous knowledge in sustainable grassroots development.

Cecilia's business activities are connected with seed collection and planting of both rare and abundant local medicinal plants.

This project is not a subjunctive 'could' or 'should' be, but, rather, actual work being done that is having success.

This project has tremendous potential for replication by other development workers and has enough flexibility to be adapted to almost any region.

Introduction

Medicinal plant knowledge in the sierra highlands of Ecuador has been well documented (Acosta-Solis 1992 and 1993, Ceron 1993, Kothari and UNOCIAE-C 1993, White 1985) while cultivation of these species in organic agriculture and agroforestry systems is actually encouraged and promoted in various manuals for both extension workers and farmers (Aucay 1996, Flores et al. 1994, Suquilanda V. 1996). This is an excellent example of indigenous knowledge

being accepted by and incorporated into rural sustainable development action. Although organic production of Ecuador's medicinal plants is described in detail in these manuals, ideas offered for marketing and sales of harvests are vague. The project described below offers an example of how to go one step further in this process and produce a low-capital-investment product with a higher sales value than just straight selling of the herbs at market. The project developed over the past couple of years and evolved from an effort to involve the local community in conservation activities. I devised the project specifically to establish a three-way link between rural development and in situ conservation of both biodiversity and indigenous knowledge. The following details the project from the outset, speculates about its possible future, and discusses its implications for development and conservation on a broader scale.

Background

As a Peace Corps Volunteer in the Natural Resources Program for Peace Corps/Ecuador, I was assigned to work with the Jatun Sacha Foundation, an Ecuadorian conservation NGO, in various conservation activities such as tree nurseries and planting, environmental education, and organic gardening. In May 1995 I began work in the town of Mariscal Sucre, the community nearest to Jatun Sacha's most recently established biological reserve, the Guandera Biological Station. Located in the northern highland sierra province of Carchi, the Station is working to conserve the last remaining sizeable montane forest (3200 - 3600 m.a.s.l.) in Ecuador. Mariscal Sucre and the surrounding communities, with a total population of about 4000 mestizos (mixed Spanish and indigenous ancestry), are strictly based on cash-crop agriculture centered around potato cultivation. Broad beans and maize are usually included in their crop/fallow rotation planting, but only to a minor degree. Cows, pigs, chickens, and "cuyes" (guinea pigs) are kept for milk and protein production. The area has been settled within the last 70 years and is relatively wealthy due to the prodigious potato harvests from the meter and a half of top-soil.

Project Origins and Evolution

Working on an organic garden project set up with Mariscal Sucre's preschool for their lunch program, I had numerous informal discussions with Cecilia Perez, a local young mother and the then manager of the preschool, about starting work on various ecological small enterprise opportunities. Cecilia originally started in producing fruit marmalades to be sold in Quito, which I did not encourage because of the high initial investment in jars and sugar and the need to get the product to Quito. Essentially, it was a micro-scale export economy which was going to end up being complicated and unstable due to health and food product regulations and occasional transportation strikes. Looking for something more simple and locally-based, I noted Peruvian imports of medicinal herbs at the local markets and nearby natural medicine stores and suggested that she capitalize on her knowledge of medicinal teas made from dried herbs and

market them locally. Cecilia, along with help from her mother and sister, came up with five different teas made with plants both easily collected locally or purchased inexpensively from nearby markets. Two examples include: one for alleviating weakness and general malaise is made from alfalfa (*Medicago sativa*), nettle (*Urtica dioica*), amaranth (*Aerva sanguinolenta*), and watercress (*Nasturtium aquaticum*), while another for problems with gastritis consists of two mints (*Mentha piperita*, *Mentha aquatica*), oregano (*Oreganum vulgare*), and "poleo" (*Bistropogon mollis*). The other teas are made to treat a variety of ailments affecting the kidneys, nerves, and lungs. In October of 1995, Cecilia opened a "Botica" (a basic pharmacy and extras store) in Mariscal Sucre where she sells the medicinal teas alongside conventional prescription medicines.

Processing, Profits, and Problems

Cecilia accomplishes the collection of the fresh herbs with a little help from her mother while out milking cows, collecting forage for their cuyes, or otherwise out in the fields working. Some of the plants can be harvested from their own or their neighbors' home gardens where specific plants are cultivated. To significantly increase the value of the tea (see problems below), she adds a limited amount of other ingredients that are purchased at the local markets. Additionally, Cecilia has expanded her home garden cultivation of both species that are difficult to find along with a variety of more common plants. Drying the plants is done either by direct solar radiation or with a drier made of a wooden box wired to burn a couple of 100-watt light bulbs. The dried plants are then mixed in the correct proportions to produce the teas and packaged in plastic bags of approximately 15 to 20 grams each and closed with a heat seal. Labels giving a product description and preparation/dosage information, are affixed and the product is then sold in the Botica.

Due to the small amount that Cecilia is producing --usually 10 to 20 bags at a time-- the normal profit margin is only about 40 percent. The production cost per bag is approximately \$0.50 and will be sold for about \$0.70. If she manages to increase the number of bags she produces and take advantage of economy of scale, the margin should approach at least 60 percent if not more.

The fact that Cecilia is selling these teas only to the folks that frequent her store who are acquaintances, if not friends, from the community of Mariscal Sucre presents a number of issues. She will give discounts to neighbors, friends, and relatives which can reduce her profits down to about four percent per bag. This will be reduced when she augments production and begins selling to nearby natural medicine stores in larger towns. At these stores the intermediaries are more profit-minded and less likely to give discounts.

Another problem, alluded to before, is the need for exoticness. If Cecilia explains to Dona Olympia, who lives just down the street, that a tea is made with dried dandelion (*Taraxicum officinale*) and nettle (*Urtica dioica*), plants

which everyone has growing in their yards, she will not be able to sell. But, when Cecilia mixes in a small amount of "Uña de Gato" (*Uncaria tomentosa*) or flax seed (*Linum usitatissimum*) that can only be brought in from other regions, the tea has a much higher retail value because of the exotic ingredient.

Expansion and Replicability

As mentioned in the previous section, increasing production and selling the product to local natural medicine stores will actually alleviate most of the problems that we are now experiencing. This particular effort will do best extended into the nearby larger towns of San Gabriel, Huaca, Julio Andrade, and Tulcan. That expansion, nonetheless, is limited due to the amount of medicinal plants that can be harvested sustainably along with other problems imbedded in both physical and fiscal realities. If cultivation efforts were intensified, Cecilia along with the help of others, could move this business beyond the next four towns. But that would involve dedicating almost all of her time to the production of medicinal teas, which is not feasible being a young mother and essentially without access to substantial amounts of capital and land. Even more importantly, she does not really desire to start up a large venture and would much rather keep the business small, easy to manage, and all-the-while profitable. I see this as the best possible path for this type operation; keeping the project on the grassroots level restricted to micro-enterprise and 'small-is-beautiful' thinking.

This project has tremendous potential for replication by other development workers and has enough flexibility to be adapted to almost any region that shares in a set of base characteristics. The optimal situation involves a cash and service economy with a population that maintains strong beliefs in traditions but, is slowly losing touch with the ways of their elders. The majority of the people in Ecuador, if not most of Latin America, could be described as such. And many developing countries around the world with fast-moving industrial sectors that are splitting off from the ways of the past also seem to carry these characteristics.

Implications for Development and Conservation

Evaluating this project in light of the current state development, there are many benefits. The first that comes to mind is the direct application of indigenous knowledge in sustainable grassroots development. The validity and need for doing this type of work has been well established (Quiroz 1996, Wali 1990, Warren 1992) and this project is not a subjunctive 'could' or 'should' be, but, rather, actual work being done that is having success. Also, the issue of female involvement in development work is extremely important for creating a more egalitarian and dynamic development process (Healy 1992). This work empowers the of women of Mariscal Sucre in economic, participatory, and action fields. Cecilia has started her own independent business on essentially

zero capital and is making a 40 percent profit when she is not helping out her friends in need. Even when compassion gets the better of her, she is not losing money. Cecilia has contributed to this project every step of the way which ensures that she is an integral part of the business, if not the entire business. And her incorporation into the often times esoteric world of biodiversity conservation action is also a success. Perhaps she doesn't quite yet understand the 'big picture' of biodiversity conservation (as few of us actually do) but, she is beginning to understand 'her picture' and is acting on it locally.

As far as conservation of biodiversity, the need for local participation and incorporation of local knowledge into conservation action has also been firmly established (Altieri and Merrick 1994, Kley Meyer 1994, Warren 1992). Cecilia's business activities, which use mostly only locally abundant plants and a few less common species, are connected with seed collection and planting of both rare and abundant local medicinal plants.

An enlightened approach to micro-enterprise development that puts a direct monetary value on indigenous knowledge and biodiversity, is a way to maintain in situ conservation of both. Not that this type of work will solve all problems but, in many developing countries that seem to be moving too fast for their own good, this type of small enterprise offers an opportunity to have a three-way success in sustainable development and conservation of indigenous knowledge and biodiversity. Small successes, but gains nonetheless.

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