

CREAR/Green Mantle Program

Progress Report No. 2

Sept. 1991 - Dec. 1992



The Green Mantle Program takes its name from the green forest mantle which cloaks the body of the Earth, as our own skin cloaks us, and without which neither we nor the Earth could live.

In the face of the on-going destruction of the highland forests of the Caribbean/Latin American region the Green Mantle Program aims to promote the widespread introduction of soil conservation, watershed management, agro-forestry, and small-scale agriculture, and to demonstrate an agro-ecological, people oriented strategy for social, cultural and economic development in the rural communities of the region.

CREAR reports to our funders and supporters with gratitude and satisfaction that the Green Mantle Program is beginning to generate widespread and far-reaching social, environmental, and economic benefits. This report tries to share with you, our vitally important co-workers, the progress which has taken place to date, and our plans for the on-going development of the Centro Regional de Estudios de Alternativas Rurales - CREAR.

The Green Mantle Program - Early Results

I - Local Development, Rio Limpio

The Green Mantle Program results in the rehabilitation of eroding hillsides, vegetable gardens growing around rural homes, and young people finding a future in farming and employment in their own community - as is happening in Rio Limpio today.



Over 20 local graduates and CREAR trainees now work as rural instructors, technical assistants, and conservation technicians. Grass-roots groups and NGOs urgently need Bio-farming practitioners, field instructors and rural promoters. The need is growing as awareness grows of the vital role of the small farmer in the global economy.

Home gardens are increasing rapidly in Rio Limpio and the nearby villages. These gardens provide food for many families, and an income from the sale of produce. More young people are planting gardens as economic enterprises, and the diet of the community has permanently changed to include salads and green vegetables. Intensive vegetable gardening is now seen as a viable and respected social, cultural, and economic activity in Rio Limpio and an ever-widening surrounding area.



Contour farming methods are now seen spreading across the steep fields of Rio Limpio and at least sixteen (16) nearby highland farming communities. CREAR trained para-agronomists, employed by a sponsoring Swedish NGO, are working with fifteen farmers in an agro-ecological production program. As conservation technicians CREAR's "barefoot agronomists" are leading the construction of contoured fields, hillside ditches and barrier strips, reshaping the landscape as well as the future of our community.



Although CREAR graduates are still few in number, their influence, and the multiplier effect of the Barefoot Agronomist Program are widely felt in the social, cultural, and economic life of Rio Limpio today. Benefits include:

- *Increased local farm and farm-related employment
- *Improved nutrition due to increased local production and consumption of green vegetables and high value garden crops
- *Greater self-reliance due to increased community knowledge and skills
- *Increased crop production as more farmers take measures to stop erosion and restore soil fertility
- *Increased community participation by local youth in agriculture and community affairs
- *Decreased migration to urban areas due to increased social, cultural, and economic opportunities

II - National Development Cooperative Extension Training the Trainers

CREAR cooperative extension programs benefit farmers and farming communities all across the country. The Intensive Bio-farming approach is now being introduced in five major watershed regions of the Dominican Republic, the Haina, Ocoa, Nicao, Neiba, and the Artibonito, where farm leaders and extension agents are introducing soil conservation and bio-farming techniques which are essential to the success of sustainable agriculture in the highland regions of the Dominican Republic.



In 1990 the Asociacion para el Desarrollo de San Jose de Ocoa, and the German Bureau for Technical Cooperation (GTZ), sponsored a series of training courses at CREAR in which more than 70 farm leaders, agronomists, and technicians were trained in intensive bio-farming principles and techniques. Today, that training experience continues to be used by more than 3,000 farming families, in more than 70 communities throughout the severely deforested highlands of the Ocoa and Nizao watershed regions of the Cordillera Central.

Pictured above is a view of the newly established Biological Agriculture Demonstration Area in the Nizao watershed region, where agricultural terraces and the biological farming of vegetables, field crops and fruit trees are being introduced.



In Bayona, a small village of landless farm workers in the hills above Ocoa River, 50 families now have small garden plots laid out around their homes. The once neglected top soil is now cared for, fertilized with compost, cultivated to intensive planting beds, and protected from animals by simple fencing. Even the smallest plots of land produce very large quantities of vegetables, salads, herbs and important medicinal plants.

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These are only two among a wide range of Grass-roots activities in more than 70 communities in the Ocoa and Nizao watershed regions. Other projects include: school gardens cared for by over 200 children, women's' gardens, terracing projects, and other Bio-farming demonstrations.



The importance of cooperative training and extension for the widespread establishment of sustainable farming systems is clearly demonstrated by the recently held FIRENA/CREAR on-site workshops.

“The number of people who need to be trained is so large that the only practical way is to adopt a multiplier approach by training the trainers.”

~ World Bank, Rural Development Policy paper, 1975 ~

Cooperative Extension Programs

Training the Trainers

CREAR's long-standing outreach and extension program has been newly defined in order to improve the possibilities of Grass-roots groups acquiring much-needed on-farm training in small-scale sustainable farming methods. Cooperative Training and Extension Programs, operated as a joint effort between CREAR, national NGOs and international sponsor organizations, are able to deliver effective, long-term, low-cost training and follow-up support to campesino groups and extension agents in the rural communities where they live and work. Cooperative Extension Programs include:

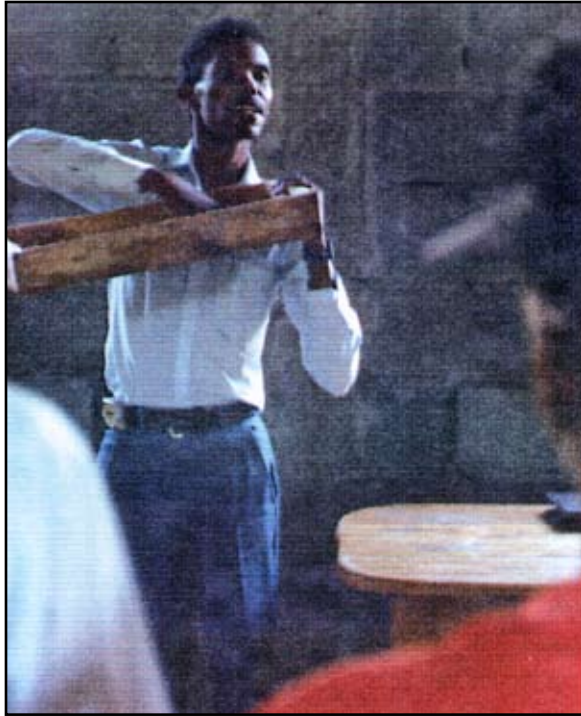
Phase 1 - Seven day intensive hands-on technical training at CREAR for 21 Grass-roots project leaders and associated technical personnel.

Phase 2 - Five day on-site training for 50 Grass-roots leading farmers, and joint follow-up training clinic for phase one course participants.

Phase 3 - Coordinated follow-up visits and technical seminars in the project zone during the two-year period following phase 2 training.



At the newly started Bio-farming demonstration area in Arroyo Palma, CREAR instructors, FIERENA extension agents and local farmers work together to promote soil conservation and Intensive Bio-farming in the Ocoa watershed region. Coop, Extension programs are integrated into the vocational curriculum of the Barefoot Agronomist program. CREAR instructors are assisted by advanced students who are themselves instructors-in-training at CREAR, as in this November 1992 extension workshop.



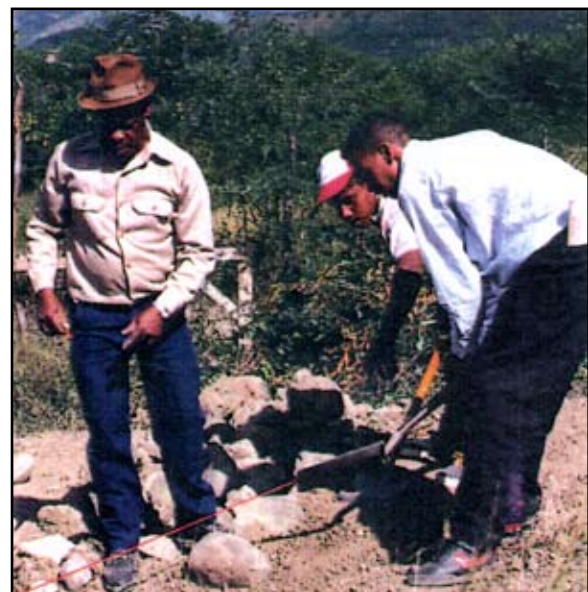
CREAR extension workshops set new standards of technical training, while also bringing new and effective agro-ecological extension services to a rapidly growing number of traditional hillside farmers and remote rural communities.

CREAR extension teams are staffed by experienced agronomists, technical instructors, and advanced students of the Barefoot Agronomist Program. CREAR instructors, all graduates of the pioneer Barefoot Agronomist class of 1990, have been training rural promoters, farmers, and development personnel since 1983.



With their background as traditional farmers, years as trainees, and now as experienced instructors themselves, they are especially able to bridge the worlds of the campesino and of the extension agent, opening new avenues of understanding and cooperation between farmers and extension workers.

Participation as technical assistants gives students “on-the-job” training which develops their technical skills and training abilities, as well as establishing new levels of achievement and professionalism within the curriculum of the Barefoot Agronomist Program.



III - Education And Training

The Roots Of Sustainability

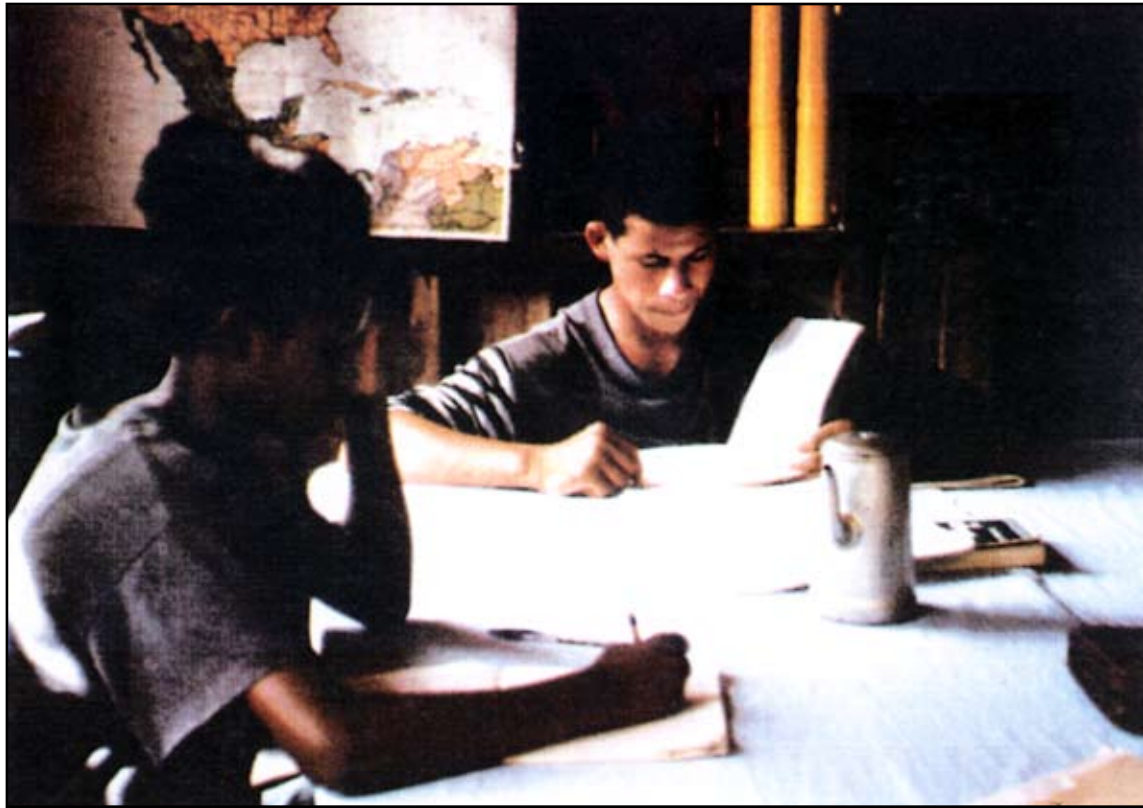
The Barefoot Agronomist Program

Today CREAR is one of four secondary-level vocational-agricultural training centers in the Dominican Republic, the only such training center specializing in Agro-Ecology, Soil Conservation, and Intensive-Biodynamic farming, and the only such training center to accept women.



The Barefoot Agronomist Program is now at full capacity, with twenty-five young women and men between the ages of 15-21, attending a three-year, full-time vocational education and technical training program in small-scale biological agriculture for practitioner-trainer, para-agronomists, technical instructors, and technical assistants.





The Barefoot Agronomist Program has been greatly advanced through the dedicated teamwork of CREAM's faculty and staff, and the on-going guidance of drs. Frans Meijer, of the Centrum voor Educatieve Dienstverlening of Holland. Academic studies, theory and technical training all work from a common, clearly structured written curriculum, with theory and practice coordinated through teaching modules developed by the education faculty with the support of drs. Meijer. The Center's vocational education program now has a balanced, three-year academic and technical curriculum and a well-defined methodology which integrates education, training, and community service.

The Barefoot Agronomist Program is emerging as a prototype for agro-ecological education and training, and provides a compelling demonstration that appropriate education and training for rural youth and the Barefoot Agronomist approach are essential elements of sustainable Grass-roots self-development.

The response of our students inspires us to new goals. Again and again we see that each improvement in the teaching program is followed by even greater efforts to learn, to grow, and to serve. Again and again the students demonstrate that it is the subsistence farmers, who must form that vital corps of rural promoters so essential to real progress in rural development.



CREAR's training and production areas are the backbone of the vocational curriculum, offering beginning students comprehensive hands-on training in conservation, ecological management, horticulture and sustainable, small-scale farming systems, opening new horizons to village youth by familiarizing them with their environment in a new and richer perspective which will help them visualize and grasp a far wider range of opportunities at hand, and prepares them for specific careers and employment opportunities throughout the nation as resource management programs grow more sophisticated and intensive.



Students soon begin to apply their new skills to the practical benefit of their families and to the general improvement of life in the village. Working with her father in the family garden after school, Anna and Don pasqual now recycle their farm and kitchen waste to produce valuable fertilizer for their crops. Such compost piles can now be found near the homes and in the growing number of family and market gardens in Rio Limpio.



Second-year student, Isidro Tejada, is building a bio-intensive market garden on the steep hillside behind his family house. With close planting on agricultural terraces, with compost as both soil improver and fertilizer, Isidro's market garden is producing a small, but regular cash income which he is using to improve his garden and increase production of vegetables for sale in the community.

As students advance they soon begin training as instructors themselves, demonstrating new techniques to relatives, friends and visitors at the Center. Gaining confidence and skill as communicators, students share their growing knowledge with the community in many ways. Here, Mella demonstrates propagation and transplanting to women from the community.





Fifteen CREAR graduates are now working in rural development projects as teachers, instructors, and technical aides, such as David Valenzuela (CREAR, 1991).

Working at La Escuela Campesina de Agricultura Sostenible (ECAS), David is introducing bio-intensive farming, teaching soil conservation and intensive vegetable production to farmers and Grass-roots community groups in the severely deforested Sierra de Neiba, 80 kilometers south of Rio Limpio.

ECAS is a recently-founded, rural education and training center directly inspired by, and modeled on the Biodynamic approach to sustainable development practiced at CREAR.

With a rapidly growing rural population, and ever less land and water available for cultivation, the intensively cultivated agricultural terraces and the Intensive-Biodynamic farming approach are meeting with growing interest, enthusiasm, and acceptance among campesino farmers, agronomists, and development organizations.





The spread of terracing skills to the small farmer is essential to the establishment of sustainable farming systems in the highlands of the Dominican Republic. “The practical limit of farming with food crops can be safely and profitably raised, thus increasing the proportion of land which can be cultivated by adopting the appropriate soil conservation measures. The most intensive treatment, i.e., bench terraces, has been shown to be specially suitable for high value crops as it results in considerable savings in subsequent farmer labor and other inputs, with more land being made available for permanent cropping...”

Forestry Development And Watershed Management
In The Upland Regions, UNDP/FAO, 1975

Any solution to the problems of rural poverty and restoring the environment must ultimately rest in the hands of dedicated Grass-roots service workers and land stewards who teach and demonstrate agro-ecology through practical work on the land. Agro-ecological education and technical training for rural youth at the village level is the essential “next step” in ending forest destruction and making change to sustainable development.

IV - Planning For The Future

Institutional Development



CREAR's first graduating class, accompanied by relatives, friends and village musicians, parades through Rio Limpio.

As a community-based Grass-roots support organization, CREAR continues to plan and develop its institutional life in conjunction with the development of local community talent and resources. Since 1990, CREAR's technical staff and faculty of 10, which included 5 expatriates, has grown to a team of 16, all from Rio Limpio and the Northwest frontier area. Serving in a supporting "founder/advisor" position, as the transition team takes on CREAR's institutional responsibilities in the Dominican Republic, Mark Feedman, as Executive Director, is able to be more active in developing and coordinating CREAR's international programs and activities, and the development of CREAR's sister project in New Mexico. Juan Antonio Lora, Acting Director and Administrator, is in charge of the management of CREAR as it evolves from a pioneering sustainable farming center to a recognized vocational institute and rural development training center.

CREAR instructors, faculty, advisors, and directors have determined that if our students are to achieve the academic and technical competency required by their future professional duties it is essential to take the following steps:

Expand the academic curriculum of the Barefoot Agronomist Program,

Hire three teachers needed to carry out the expanded academic program,

Hire three vocational instructors to lead the development of the appropriate technology, animal husbandry, and agro-forestry areas,

Establish official certification of the Barefoot Agronomist curriculum, and recognition as a private vocational-technical institute.

These steps have been incorporated in the planning and budgeting for 1993, and implementation is progressing as human resources and supporting funds become available. The Ministry of Education has accepted CREAR's technical curriculum; the academic curriculum is being expanded to meet Ministry requirements; the schedule of studies is being restructured to meet the requirements of the expanded curriculum; an animal husbandry instructor has been hired, and a search is on for qualified personnel to carry out the development of the Barefoot Agronomist curriculum, and extend the range and effectiveness of the Green Mantle Program.



Acting director, Juan Lora, education faculty, and technical instructors meet weekly to review and evaluate progress, share and resolve problems, plan and schedule the studies and on-farm activities.

Inter-Institutional Development:

Given the urgent need to achieve a regional change-over to sustainable farming systems, CREAR's activities aim to foster and create opportunities for cooperation between national and international development organizations and their grass-root partners.

The Alianza Agro-Ecologia.



Directors, staff members, and advisors of the Loyola Agriculture Institute, the National Evangelical University, CREAR, and the Social Service of the Dominican Church, meeting in Rio Limpio at the founding of the Alianza Agro-Ecologica.

In March, 1991, CREAR formally proposed the formation of a national alliance of agricultural training centers and NGOs to promote the introduction of sustainable farming among small-holders and farming communities nation-wide. The proposal was accepted, and the Alianza Agro-Ecologica was founded. Representatives of each organization have been meeting regularly to develop a formal structure, statutes, a basic agro-ecological training curriculum, and a job placement program for certified graduates. It is hoped that the Alianza Agro-Ecologica will provide a model for cooperative action region-wide, and speed the widespread introduction of sustainable farming.