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FIRST INTERIM/PROGRESS REPORT

ON

THE INTERNATIONAL TECHNOLOGY DEVELOPMENT
AND TRANSFER IN RURAL RECONSTRUCTION

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by the

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SUMMARY

The International Institute of Rural Reconstruction (IIRR) herein submits to the Agency for International Development (AID) The First Interim Report, describing its programs and activities in 1987-88, the first year of Matching Grant support under Grant Number OTR-0286-A-00-7132-00 Amendment No. 01.

The following first year report is prepared in keeping with the recommended U.S. AID Reporting Guidelines.

It contains a basic text and detailed supplementary report prepared in the Philippines. Both narratives are essential to an adequate overview and basis for evaluation.

Program achievements in 1987-88 were distinguished by:

- 1) a 50% increase in enrollment in IIRR's training program;
- 2) recognition as a world leader in the field of regenerative agriculture; (See Appendices 9 & 10).
- 3) outreach and in-country trainings organized for nine developing countries;
- 4) renewal of the Ghana Rural Reconstruction Movement;
- 5) successful completion of China Seminar for 15 Chinese scholars and technicians from seven institutions;
- 6) renewed private sector support for international extension for family planning programs for six countries.

Administrative progress was made in areas of Board development, financial management, coordination and planning in fundraising, marketing, organization structure and division of labor.

IIRR's financial status is undergoing review by its Board to achieve cost containment and to generate additional sources of income where possible.

I. BACKGROUND TO GRANT AND PROJECT CONTEXT

IIRR's organizational purpose is threefold: 1) to continually generate new or improved knowledge, technical and project management capabilities in rural development; 2) to share this knowledge, technical and managerial know-how with PVO and governmental project and program managers through international training and outreach, and 3) to promote the acceptance and use of integrated, people centered development strategies that improve conditions of livelihood, health, education and self-government for the rural poor.

IIRR carries out its mission from its headquarters in the Philippines on a 125-acre training campus and in affiliation with six independent national movements operating in Africa (Ghana) Latin America (Guatemala and Colombia) and Asia (India, Thailand and the Philippines). IIRR is also linked to over 1000 graduates of its training from 52 countries through newsletters, collaborative trainings and alumni associations.

For the USAID grant award period of 1987-89, IIRR will continue to promote the growth and development of its international outreach programs through activities in international training, extension, communications and research. New initiatives and special emphasis during this period is being given to new and substantial programs and projects in appropriate technology, the role of IIRR alumni in networking, program development and associations; enhanced roles for National Rural Reconstruction Movements in collaborative research and training; and continued improvements in IIRR international training programs.

Special capabilities and circumstances that bear on IIRR's ability to undertake this work include its:

- a. Demonstrated organizational expertise in appropriate technologies.
- b. Effective demand for IIRR trainings among individual project and program managers from other PVO's and sponsoring agencies.
- c. Established and improving linkages with six national rural reconstruction movements on three continents and with IIRR Alumni.
- d. Established time-tested field programs and international staff at its core.

In embarking on the present three-year grant cycle, IIRR, in particular has designed its goals and objectives to give increasing priority to the relationship between sustainable development strategies and environmental resource depletion.

Work originally begun in May 1986 on the Island of Negros in collaboration with UNICEF laid the foundation for IIRR's now expanded work during the present U.S.A.I.D. grant award period in:

- . bio-intensive gardening
- . regenerative agriculture
- . seed conservation
- . pesticide safety
- . low-input rice production
- . alternatives to chemical fertilizers, like green manure, azolla
- . agroforestry

In addition IIRR continues to respond to increasing demand for its training expertise, project management skills and people's participation methods.

Circumstances that give rise to IIRR's concentration in these two areas (complementing its overall, basic Field Operations and Research Program) include such factors as:

- 1) The increasing and growing number of people in hunger throughout developing countries. (In 1980, the World Bank reported a 14% increase in absolute terms in the number (340 million) of severely or moderately malnourished from just a decade earlier and predicts this number will continue to increase.)
- 2) Increasing marginalization of the poor, resulting in landlessness, displacement or occupancy of uncultivable land threatening family food and household income security.
- 3) Widespread global abandonment of food crops in favor of cash crops.
- 4) Accelerating deforestation, pollution, and resource depletion attributable to population pressures and development strategies and policies that have hitherto overlooked the fundamental link between environment and social and economic development. See Our Common Future, The World Commission on Environment and Development, 1988.

The validation of IIRR's special attention to these circumstances is succinctly summarized in a paragraph from "The Premier Issue" of International Ag-Sieve, published by RODALE INTERNATIONAL:

The majority of people in the Less Developed Countries depend upon the productivity of their land to feed their families, thus the way to improve life for most people is through increased agricultural productivity, and yet, according to the UNDP 1986 Annual Report, the end of this century will see the world's food-yielding croplands becoming more scarce, with only 0.19 hectares per person in developing countries by the end of the century. The report goes on to say that the world has lost about 2,000 million hectares of cropland to soil erosion since the dawn of farming. With some 11 million hectares of tropical forests vanishing each year, not only is valuable topsoil being lost, but an important component of the world's hydrological cycle is being destroyed in the search for fuelwood and land. In 35 years, from 1950 to 1985, the population of the less developed countries grew to over 3.7 billion people, at a rate more than double that of the developed nations. With these destructive forces, and a history of benign neglect of the subsistence farmer, what is the potential for the developing countries to produce the food they need and simultaneously to enhance the environment?

RODALE's response to this rhetorical question is:
REGENERATIVE AGRICULTURE.

IIRR's response to this situation has been:
REGENERATIVE AGRICULTURE.

IIRR has sought A.I.D. support to develop a special capability in this area, to integrate this into the overall IIRR approach to rural reconstruction, and to disseminate more broadly this capability and this approach via The Training and International Outreach Programs.

A.I.D. support was sought by IIRR to complement funding provided by the private U.S., Asian and European, and multilateral U.N. agency grants and contributions to these programs.

II. PROJECT METHODOLOGY

The goal of IIRR's USAID grant is to provide increased development management capabilities to indigenous institutions.

The purpose of this grant is to increase the scope and impact of the training and outreach capability of IIRR, its network of affiliated National Rural Reconstruction Movements (NRRMs), and its network of rural reconstruction alumni specifically through the development and transfer of technology for rural development.

As noted in the Introduction, AID and IIRR further understood that AID and IIRR viewed an in-depth review by IIRR of its goals, organization, and strategic planning capability as an essential ingredient for their continued partnership in the pursuit of the goal and purposes of this Grant Agreement.

Accordingly, IIRR's basic strategies for accomplishing the goal and purposes of this grant are:

- 1) Continued and increased TRAINING and OUTREACH programs to indigenous PVOs, NRRMs, IIRR Training Alumni; and
- 2) Expansion, promotion and international extension of the activities of its Appropriate Technology Unit (ATU).
- 3) Special consideration by the Board of Trustees and the Staff to review and, as necessary, revise the IIRR goals, program planning, long-term strategies and institutional organization.

Objectives in TRAINING and OUTREACH include commitments to:

- A. Increased number of international training courses aimed at meeting the particular needs of Third World development agencies.
- B. A strengthened, internationalized, culturally adaptable training curriculum which draws on the actual rural reconstruction experiences of IIRR, NRRMs and the training alumni around the world, and which meets the specific needs of Third World participants and institutions.
- C. Increased on-site regional, national or topical trainings in collaboration with NRRMs and/or training alumni associations.

- D. Closer linkages with development agencies and the international RR network through publications and conferences.
- E. Increased number of training course participants from Third World organizations and countries, especially Africa, via new recruitment strategies.
- F. Systematization of development of new training modules and resource materials to improve impact of NRRM and Alumni training programs in their regions.

Objectives in the ATU element include generating alternative low-cost, practical technologies to meet the development needs of rural villagers, specifically:

- A. Completion of a 3-year demonstration Low-Input Rice Production Project.
- B. International extension of the Seeds of Hope Program. (This program promotes the conservation of indigenous genetic plant resources.)
- C. Establishment of a new and increased capability to develop and promote the adoption of Non-Land Based Technologies for international transfer. (These technologies having a direct bearing on rural employment and income generation issues. Technologies include such alternatives as soap making, coconut oil production, rice hull charcoal briquette making, rice straw paper making, fish meal production, starch production, grain/fish drying, etc.)
- D. International extension of the Regenerative/Bio-Intensive Agriculture Program for Rural Farmers in conjunction with each of IIRR's NRRM's and selected PVO's operating in Kenya and Indonesia.
- E. Preparation and packaging of rural development lessons for international distribution on other selected innovative technologies. (These include work in the areas of beekeeping, salt, herbal medicine, pesticide safety and fertilizer alternatives.)
- F. International extension and promotion of the Family Food Production Program model now being demonstrated in Negros. This program combines the use of seed conservation and bio-intensive gardening techniques and principles with the operations of supplemental feeding

centers to help meet the long term nutritional needs of the rural poor through the establishment of low-input backyard food production systems that are capable of satisfying 30 percent of the protein, 60 percent of the Vitamin A and 100 percent of the Vitamin C and Iron requirements of families, and especially children.

- G. International extension and promotion of the use of bio-intensive approaches to food production within primary public education systems to meet and complement science and nutrition curricula. (This program, now underway in 3 communities in the Philippines, is being expanded nationwide by the Philippine Department of Education, Culture and Sports.) The program uses a teacher-child-parent approach and has the capability of not only fostering the set-up of increasing numbers of backyard gardens for household food security but helps to communicate many other ecological and health issues.
- H. Integration of the development and trial testing of all aspects of the appropriate technology unit into the ongoing field operations, international leadership training and extension work of IIRR. Training modules, curricula, experimental results and culturally sensitive cross country research will thereby be made available to an estimated 800 rural development workers from over 20 countries expected to be trained by IIRR on campus and via regional seminars over the 3-year grant period.

Objectives in ORGANIZATIONAL REVIEW include commitments to:

- A. Plan and Coordinate efforts by Staff and Trustees to review and, as necessary, to revise current policies, procedures and strategies bearing on the organization, governance cost-effectiveness and programs of IIRR, in order to increase IIRR's institutional potential and effectiveness.
- B. To develop information and to utilize consultants, as needed, to address operational problems, strategic planning issues and policy matters and to implement the decisions recommended to and by the Management and the Board of Trustees.

IIRR will use various methodologies and approaches to achieve these objectives. In TRAINING AND OUTREACH, methods and approaches will include:

1. Managing regular training courses: Enhancing competence in the management of regular courses, IIRR will:
 - a. Conduct more aggressive and appropriate marketing of the training program and improve participant recruitment and selection strategies;
 - b. Increase representation from Third World organizations and countries, especially Africa;
 - c. Continue to improve training curricula and curricular materials to respond to participants' needs;
 - d. Institutionalize, expand and improve systematic contact with alumni.

2. Managing collaborative training courses: Training curricula will be broadened in response to needs of other development organizations, agencies and alumni and/or in collaboration with those organizations.
 - a. Conduct of courses for practitioners of organizations with which collaborative relationships have begun (e.g. Kenya, Indonesia, Sri Lanka) (e.g. CARE, YMCA, UNICEF, CORNELL) will continue;
 - b. Training workshops in other Third World countries will be planned and conducted in collaboration with regional umbrella organizations.

- Collaborative trainings planned are: Indonesia trainings; Sarvodaya Shramadana (Sri Lanka) training follow-up; Peace Corps training activities in Health, etc. as requested; Cornell-VISCA follow-up; Kenya follow-up; and Asian Institute of Rural Development (AIRD)-IIRR collaborative training in India.

3. Managing training programs with and for NRRMs: IIRR will help build NRRMs' capabilities in planning, implementing and evaluating training activities by:
 - a. Designing training programs in specific content areas, based on their needs and interest;
 - b. Providing internships in work study programs to NRRM staff;
 - c. Helping systematize development of new training resource materials.

- c. Helping systematize development of new training resource materials.
4. Building dynamic Training Resource Center (TRC):
To improve the Institute's capability to "package" materials on training and development and institutionalize a TRC, the division will:
 - a. Coordinate development of cross-cultural training methodologies, strategies and materials for training participants, NRRMs, alumni and Institute staff;
 - b. Regularly review and update easily accessible training resources for trainers and facilitators.
 5. Program organization and resource development:
Optimization of human resources in training through sound management will be ensured by:
 - a. Conducting a staff development program of training for trainers and skills development;
 - b. Continuing exploration and development of new areas of potential growth.

Methods and Approaches relevant to the Appropriate Technology Unit will entail the transfer of technology via IIRR's:

1. Family Food Production Program: The IIRR-initiated Family Food Production Program in Negros the largest provincial-level project of its kind in Asia, and the only one in the world that combines a nutrition agenda and genetic resources conservation. UNICEF invited IIRR to undertake this long-range self-sufficiency and attitude-change program as a complement to its short-term feeding of malnourished children in Negros. IIRR's first phase was the introduction of Bio-Intensive Gardening, an appropriate technology which allows maximum food production in a small piece of land. This approach and methodology include among its multiple components distribution of seed kits and training kits (See Appendix 9).
2. Low-Input Rice Production: This project is intended to develop a farmers' system of agriculture that relies less on capital intensive inputs such as chemical fertilizers and pesticides and more on renewable

profits for small farmers, higher yields, cost-savings and improvements in overall ecological balance.

3. Genetic Strain Conservation/Seeds of Hope Project: The purpose of this project is to promote the conservation of valuable plant genetic resources (seeds) through the establishment of village level plant heritage plots and distribution systems for indigenous locally adapted seeds. It is planned to establish an international seed-conservation network among selected NGO's represented by IIRR Alumni.
4. Living Bio-Intensive Garden Laboratories. This program will combine bio-intensive gardening approaches with public school science and nutrition curriculum development and teaching. Bio-intensive gardens sponsored by teacher-child-parent groups are used to teach many ecological, and health issues (pesticide hazards, genetic resource conservation, bio-energy, water conservation, human nutrition, etc. Current program is to be undertaken nationwide in the Philippines (to be undertaken by IIRR and the Department of Education, Culture and Sports and The National Nutrition Council.)
5. An International Regenerative Agriculture Training Program: The purposes of this project include:
 - a. Train third world development practitioners (trainers, specialists, and extension workers) in the rationale, basic principles and concepts of regenerative agriculture in such areas as:
 - soil and water conservation
 - conservation of genetic plant resources
 - social forestry/agro forestry
 - bio-energy
 - integrated crop and livestock practices
 - backyard bio-intensive gardening
 - pesticide
 - b. Increase the capability of third world development practitioners to identify and evaluate the ecological, social and economic effects of conventional agricultural techniques.
 - c. Increase the capability of development practitioners to identify and use locally available resources and sustainable, alternative agricultural techniques.

This international regenerative agriculture training program will be fully integrated with and

influence the ongoing annual IIRR international program for senior and mid-level development managers. IIRR has also elected to work in countries with existing NRRM's (India, Ghana, Guatemala) and alumni (Kenya, Thailand, Indonesia) to meet real demand for its services and to maximize its advantages in introducing regenerative agriculture methods with greater relevance, impact and insurance of continuing use. Active participation, learning and decision making by rural people themselves will be emphasized relying not only on IIRR's technical skills but its long history and demonstrated ability to engage and motivate peasants to understand, accept and use as their own, new techniques for meeting their priority development needs.

6. Non-Land Based Technologies: The purposes of this project include:
- a. Identify, test, adapt and demonstrate at the field level appropriate non-land based technologies aimed at improving the overall quality of life of the rural poor through the increase in household incomes.
 - b. To advocate and lobby for an increasing emphasis on self-reliant, resource-efficient, environmentally sound, cost-effective and sustainable rural technologies/enterprises among organized groups of rural poor.
 - c. Evolve an indigenous delivery system for the dissemination of Non-Land Based Appropriate Technology concepts and ideas.

Technologies that have been initially identified for use at the village level include:

- a. soap-making and coconut oil production and other coconut by-products
- b. rice hull charcoal briquette making
- c. rice straw paper making
- d. fruit processing
- e. fish meal production
- f. hollow block making (by the conventional method and by using agro-wastes)

- g. starch production
- h. grain/fish drying technologies

In addition to Training and Outreach and the development of transferable technologies by IIRR's Appropriate Technology Unit, IIRR will also utilize its International Extension Division to advance and reinforce its goals and objectives.

The IE Program will focus on the following specific methods and approaches in working with NRRMs and alumni:

1. National Rural Reconstruction Movements

- a. Holding substantive IIRR-NRRM conferences at an NRRM site to discuss roles and mutual responsibilities;
- b. Providing NRRMs financial support based on concrete program proposals and sponsoring a workshop in innovative fund-raising for NRRMs;
- c. Providing NRRMs with non-financial support and linking them up with regional and international networks.

2. Broadening program scope: Alumni based networking

- a. Continuing technical and training support to the South Asia Rural Reconstruction Association (SARRA);
- b. Deepening relationship between alumni associations through the work-study program and collaborative projects;
- c. Responding to support needs of alumni associations in Indonesia and Ghana;
- d. Developing alumni networks in other countries and regions.

3. Widening geographic coverage

Continuing exploratory groundwork for the emergence of a critical mass of Rural Reconstruction practitioners in needy regions with which IIRR has had little or no previous contact.

4. Enhancing IIRR Data Collection and Information Sharing
 - a. Continual updating of a systematic bank of information on each NRRM (and its country) at IIRR and developing a mechanism for dissemination of this information;
 - b. Holding sharing workshops/symposia on experiences and lessons of NRRMs and alumni associations;
 - c. Involvement of national/regional correspondents and publication of research-based articles in the International Sharing Newsletter.
 - d. Publication for international circulation of the collaborative documentation on the IRRM social laboratory and in-house publication of documentation on MGRR's credit and overall programs.

IIRR Research Division will use the following supporting methods and approaches to enhance training and outreach and technology transfer:

1. International collaborative research: IIRR will pursue cross-cultural research with affiliate National Rural Reconstruction Movements (NRRMs).
 - a. An agreement entered into with the Indian Movement in 1986, to develop a participatory research strategy will be implemented.
 - b. Development and completion of specific studies on problems, processes, impact, participation, etc., such as "Consequences of Urbanization and Industrialization in Cavite."
2. Program development research: Research on selected critical issues identified by rural reconstruction facilitators, partner communities and the NRRMs will be pursued and will specifically involve:
 - a. A study of savings and credit practices of the rural poor, and
 - b. A workshop on indigenous specialists in rural reconstruction.
3. Research support services:
 - a. Library: Upgrading and organizing library collection, and facilitating and stimulating creative use of materials, will continue.

- b. Data processing and analysis: A comprehensive data storage and retrieval system will be developed, capability of research staff for quantitative data analysis will be enhanced through workshops, and other staff will be trained in computer use.

Similarly, IIRR's Communication Department will work to:

1. Design, implement and evaluate a project which will test an appropriate, interactive media-assisted information-communication system which will supplement and enhance other training techniques for the development of rural people, and which can become a functional part of life in the rural areas.
2. Develop new ways to package replicable field experiences on Rural Reconstruction into info-educational materials for international training and outreach purposes.
3. Increase the production of a range of publications and audio-visual materials, with a particular concern for Development Education.
4. Expand foreign language and translation capabilities.

Year I Accomplishments

See Appendices for detailed results of regular international trainings and gender breakdowns. (June 1987 - May 1988).

Major Year I accomplishments included:

A. TRAINING AND OUTREACH

- 1) 82% increase in the number of training courses offered - 20 in 1987-88, up from 11 in 1986-87.
- 2) 50% increase in the number of participants trained (404 in 1987-88, up from 271 in 1986-87).
- 3) 17 new agencies sent participants to IIRR trainings for the first time.
- 4) 92% increase in the number of Africans attending IIRR training (97 in 1987-88, up from 51 in 1986-87).

- 5) Successful completion of ten (10) onsite national trainings in collaboration with National Rural Reconstruction Movements (NRRMs) and alumni associations.
- 6) Development of three (3) new training curriculum modules (livelihood, social analysis and agricultural approach to family planning) and revision of six (6) others on: organizational development, project proposal writing, critical development issues, program/project monitoring and evaluation, program/project management, and training methodologies.
- 7) Adaptation of four (4) training curricula packages for cross-cultural use: Regenerative Agriculture (Thailand, Ghana, India, Nepal, Philippines); Participatory Evaluation (Kenya, India and Philippines); Program Project Management (Indonesia, India, Philippines); and Family Planning (Thailand and Philippines).
- 8) Completion of two case studies of IIRR rural development projects in collaboration with International Relief/Development Project of Harvard University's Graduate School of Education and with the ARIES Project.
- 9) Development of network of South Asian training and resource centers to provide ongoing training and follow-up in management and technical fields. Resource centers include Dryland Agriculture Research Center in Bangalore, India; Learning Center in Cooperative Management, Hyderabad; College of Community Medicine, Lahore, Pakistan; and agroforestry research centers in Sri Lanka.
- 10) For details on technical consultancies, publications/media seminars, information kit distributions and liaison to other PVO's, see Appendices.
- 11) For details on NRRM and alumni networking and collaborative programming, technology transfer, training and outreach, see Appendices.

B. APPROPRIATE TECHNOLOGY

- 1) IIRR's Appropriate Technology Unit (ATU) has successfully installed over 25,000 bio-intensive gardens, trained 8,000 garden promoters and distributed over 38,000 seed packets in the Philippines. Bio-intensive

gardening and regenerative agriculture methods have been adopted by the Departments of Agriculture and Education. Instruction in bio-intensive gardening is now nationally mandated for all primary and secondary schools throughout the Philippines. (See Appendix 9)

- 2) Low-Income Rice Production. Completion of successful trials on ratooning and the use of bio-fertilizers like azolla, azospirilla, legumes and other green manure; four tests of drum seeders for seeding of pre-germinated seeds in rows; and two tests in the use of a mechanical conoweeder. (See Appendix 1)
- 3) Soil and water conservation. Establishment of a pilot project to test and demonstrate conservation techniques like planting of trees and grasses as hedgerows and stabilizers, construction and continuing maintenance of contour canals and checkdams, land cultivation and planting of mixed crops. (See Appendix 1)
- 4) Non-Land-Based Technologies. Establishment of pilot projects to test and demonstrate coconut-based soap production and processing of sweet potatoes into snack chips. (See Appendix 1)
- 5) Fresh water fish production. Beginning of trials in four villages on mini-ponds, duck-fish and rice-fish cultures. Dispersal of 5,115 breeders and fingerlings from IIRR demonstration ponds and from Bureau of Fish and Aquatic Resources and Central Luzon State University. (See Appendix 1)
- 6) International extension of regenerative agriculture.
 - a) Completed collaborative training program in regenerative agriculture for 23 CARE agricultural specialists and administrators from ten countries. (See Appendix 10)
 - b) Training in regenerative agriculture for 17 development specialists from Ghana and Sierra Leone.
 - c) Training of 94 Ghanaian farmers as trainers and demonstrators of regenerative agriculture and agro-forestry techniques.
 - d) Establishment of 5,650-tree-nursery and demonstration plots in alley cropping, woodlots and bio-intensive gardening in Akwapim District in Ghana.

- e) Establishing links with International Institute of Tropical Agriculture, International Livestock Center for Agriculture and Ghana's Department of Agriculture, Commission of Agroforestry, Parks and Gardens Commission and University of Science and Technology in Kumasi.
- f) Training of 34 rural development specialists from North and Central Thailand in regenerative agriculture.
- g) Laying the groundwork for regenerative agriculture trainings in India and Kenya in 1988 and in Guatemala in early 1989. Training for Indonesian development specialists will be held at IIRR's world headquarters in the Philippines in July 1988.
- h) Completed regenerative agriculture training in Papua New Guinea.
- i) Supplemental funding is now being sought for the implementation of seed conservation and banking capabilities in the Philippines, Ghana, India, Guatemala and the development of non-land based technologies for small micro-enterprise development as cottage industry to be emphasized in Year II & III.

C. ORGANIZATIONAL REVIEW

Institutional organization and strategies planning emphasis has resulted in a major program reorganization, the election of 7 new Board members, a new Director of Training and Outreach, major staff consolidation, and strengthened fundraising capabilities. Outside consultants, staff and trustees have all played an important role in these efforts. (See section V.)

In addition to these achievements, IIRR has also successfully undertaken the beginnings of a new China program, completing a 14-day seminar in the Philippines for 15 representatives from 7 Chinese institutions. A second seminar is scheduled for 1989 to further explore possibilities for collaboration and a revival of the Rural Reconstruction Movement in China.

III. MONITORING AND EVALUATION

IIRR baseline data, critical indicators of effectiveness and benchmarks for project progress for its training and outreach activities include:

- 1) Number and frequency of regular trainings and special trainings offered.
- 2) Number of participants attending.
- 3) Distribution of participants by country of origin, gender, and prior work experience.
- 4) Participant evaluations of training.

(See Appendices for details)

IIRR is presently embarking on a new marketing initiative to further enhance training outreach and attendance. This marketing analysis includes a review of capacity and pricing of its course offerings. Specific targets and revised performance indicators are expected to be set for Year II & III.

Baseline data, critical indicators of effectiveness and progress for IIRR's Appropriate Technology Unit include:

- 1) Number of trainings on-campus;
- 2) Number of off-campus and out-of-country trainings;
- 3) Number of information kits distributed per country;
- 4) Number of bio-intensive garden promoters trained;
- 5) Number of gardens installed;
- 6) Frequency and size of echo-trainings held by promoters trained by IIRR;
- 7) Number of seed acquisitions;
- 8) Number of seed packets and catalogues distributed.

Monitoring and evaluation plans are the responsibility of Division heads of Training and Outreach and the Appropriate Technology Unit. Greater attention will be given to gender specific data in Years II & III.

IV. REVIEW AND ANALYSIS OF PROJECT RESULTS

As suggested in the PVO ANNUAL REPORTING GUIDELINES, as revised March 29, 1988, IIRR's annual report for the first year of the matching grant focuses attention on Sections II and III. Specific outputs are itemized in section II.2 and are described in greater detail in the Appendices. Problems encountered so far are also described in these appendices.

At this point, it is still too early to analyze effects on target groups, or unintended effects.

No problems are anticipated in meeting the final project objectives.

V. MANAGEMENT

In 1987-88, IIRR's Board of Directors reaffirmed "training" to be the centerpiece of IIRR's mission and accordingly revised and updated IIRR's organization structure. To streamline operations, four program departments were merged into two major divisions: a Division of International Training, and Outreach, headed by Dr. Erasmus Menu, and a Division of Field Operations and Research, headed by Conrado Navarro. In addition, the Board mandated the undertaking of a comprehensive marketing study of IIRR's current training programs, audiences, market share and competition.

SGV/Philippines, a subsidiary of Arthur Andersen, is currently consulting with IIRR senior staff in the Philippines to develop a marketing plan which as a result will increase enrollments in existing IIRR training programs and the development of relevant and marketable new programs.

Planning during this period also included a week long consultation with the Manitoba Institute of Management on internal organizational communication and management techniques. Changes in senior management positions included:

- Promotion of Dr. Antonio de Jesus to Executive Vice President/Philippines
- Promotion of Mr. Juan Jasa to the position of Controller/Philippines.
- Mr. Kamal Malhotra, former Director of International Extension resigned in March 1988.

A grant was also received from the Nellie K. Van Schaick Trust, which will partially support continuing professional education by IIRR senior health staff at Philippine graduate institutions. In addition, six staff members were sent on study tours or attended workshops in India, Thailand, Korea and Israel.

In the area of financial management, IIRR analyzed and restructured its financial management procedures to improve budget planning and cash flow management practices. Senior accounting staff in New York and the Philippines exchanged on-site visits and on-site technical assistance was provided in the Philippines by a senior partner of IIRR's auditing firm of Arthur Andersen. A review of IIRR's pension plan was also undertaken to ensure savings and capacity to meet liabilities.

Planning begun in 1987-88 also includes:

- 1) a continuing analysis of the need for and cost of adding a senior vice president position for administration in the Philippines;
- 2) review and consideration of further cost containment measures, as necessary;
- 3) Board Development including recruitment and selection of a new Chairman of the Board and appointment of a Board Treasurer.

Finally, two extraordinary management decisions were made in 1987-1988. First, Dr. Y. C. James Yen elected to resign as Chairman of the Board of IIRR, remaining on the Board as an active trustee. Secondly, IIRR implemented a 44-person reduction in force in May of 1988 through retirement, natural attrition and non-renewal of contracts associated with underfunded project activities.

IIRR's Board of Directors remains the final policy and decision making body for management of IIRR. Standing and active Board Committees have been established to guide Program and Planning, Resource Development and Finance and Budget matters. Seven new Board members have been elected since 1987. Mr. James Johnson, an IIRR trustee of over 20 years and former partner of Cleary, Gottlieb, Steen & Hamilton, is presently serving as interim Chairman. IIRR's Board Nominating Committee led by Mr. Russell Phillips of the Rockefeller Brothers Fund is actively pursuing a candidate search.

IIRR's Development Education activities were highlighted in October 1987 by the publication of a special feature in Reader's Digest about IIRR's founder, Dr. Y. C. James Yen, by the Pulitzer-Prize Winning author, John Hersey. This article has been seen by an estimated 50 million Americans, and has inspired presentations and discussions in school classrooms, church groups and book clubs, with the support of IIRR's U.S. office. The office has also responded to more than 800 information requests arising from the article.

Articles about Dr. Yen and IIRR have also appeared in Beta Theta Pi magazine, the New York Times, World Development Forum and Front Lines.

In addition, IIRR's President Dr. Juan M. Flavier, U.S. Vice President, Dr. Robert F. O'Brien, and other senior staff members have addressed a variety of forums and seminars to increase public awareness and understanding of development issues. These have included seminars at Columbia University and Cornell University, an SID meeting in Washington, the InterAction

annual Forum, the World Congress on Philanthropy in Toronto and a seminar on US-Philippine cooperation of the Carnegie Council on Ethics and International Affairs.

VI. FINANCIAL

IIRR's Project Financial Overview and PVO Organizational Financial Overview are presented as a Financial Profile of the Project in Appendix 13. An update of actual expenditures to date is also presented as part of Appendix 13.

These schedules were prepared consistent with budgets originally submitted as part of IIRR's 1987 grant request. In preparing original budget forecasts, IIRR excluded 50% of its field operations budget based on anticipated support from the U.S. AID Philippine Mission pursuant to the advice of U.S. AID/Washington.

In the year just ended June 30, 1988, no U.S. AID Mission support was received and actual program expenses have therefore exceeded anticipated income for this period. These "unfunded" expenses do not appear in the financial profile. Consequently, for the year ending June 30, 1988, expenses are estimated to be approximately \$250,000 in excess of expenditures as presented in the financial profile. Further adjustments in financial projections may be necessary in 1989 and 1990 pending the outcome of any U.S. AID Mission grant support and additional private sector fundraising.

No changes are anticipated in the monthly drawdown equivalent to approximately 1/12th of the total annual grant amount.

During the second half of FY 1987 IIRR succeeded in reaching its 1987 U.S. fundraising goal, raising \$350,000 in unrestricted funds. An additional \$205,980 was also raised in restricted funds for special projects and deferred toward budgeted expenses for the period of 1988-1990.

FY 1987 accordingly proved to be IIRR's most successful fundraising year since 1984. Fundraising highlights included a major founder's gift of \$75,000, the addition of 800 smaller individual contributions through appeals based on a fall 1987 Reader's Digest publication on the life and work of Dr. Y. C. James Yen; new fundraising materials and reorganization of U.S. fundraising office staff; discontinuation of ineffective and costly direct mail fundraising programs; and stronger program development coordination between IIRR's U.S. fundraising staff and IIRR's Philippine and NRRMs operations leading to increases in corporate and foundation support.

IIRR, however, continues to face a challenging and ever increasingly competitive fundraising environment characterized by donor perceptions of real and perceived instability in the Philippines; changes in U.S. tax laws and stock market uncertainty; low name recognition; an aging donor base, a dramatic loss in U.S. AID Mission support (\$250,000) in 1987; slow but increasing reliance on Asian and European sources; and increased competition for scarce charitable contributions among increased numbers of PVOs that now also champion a philosophy and approach similar to IIRR's "release not relief"/"go to the people" "four-fold integrated" approach to development. In short, the world has caught up and IIRR must strive continuously to differentiate its contributions in the field of rural development. (Note: IIRR's work in regenerative agriculture, bio-intensive gardening and agricultural approach to family planning methods are three distinguishing realms of activity).

Anticipated development concerns in 1988 include:

- 1) 1987 expenses in excess of income. Despite accurate income forecasts in 1987, IIRR expenses exceeded income resulting in a deficit of \$290,000. Reductions in force (termination of 42 staff positions) in Jan-June 1988 will place IIRR's budget in balance in 1989.
- 2) 1988 income although increased for 1988 over 1987, will not meet minimum 1988 expenses. IIRR therefore anticipates a further deficit in 1988 of approximately \$100,000.
- 3) Three major foundation donors representing approximately \$100,000 a year are in or approaching uncertain renewal cycles.

Fundraising activities during the first half of 1988 have included:

- 1) Accelerated proposal development work in Jan-June 1988 produced new requests to three major foundations representing \$255,000 in projected income. To date, \$25,000 has been granted and \$230,000 in requests is still pending.
- 2) An annual Spring appeal and the 1987 Annual Report were issued on schedule.
- 3) Preliminary discussion of renewed efforts to mount an endowment campaign are under way to restore IIRR's development revenues that have decreased from \$1.7 million in 1974 to \$450,000 in 1988.

- 4) Results of June fundraising visits by IIRR's President have identified a variety of short and long range fundraising opportunities including donor interest in a new non-land based technology program for micro-enterprise development, (Levi Strauss Foundation; Public Welfare Foundation, Atkinson Foundation); possible general program assistance from the Asia Foundation's American Friendship Fund for the Philippines; the Arab Gulf Funds, the Thrasher Foundation (primary health care); and the International Fund for Agricultural Development.
- 5) Background research was also conducted to produce donor profiles on 15 pharmaceutical companies as possible contributors to IIRR. Companies will be approached for support with the help of the Pfizer Corporation which has agreed to sponsor a corporate fundraising luncheon hosted by a member of IIRR's Board of Trustees in October 1983.
- 6) Planning and co-sponsorship of special events benefit in collaboration with a new major individual donor, the Breakthrough Foundation and Sarvodaya Movement to be held August 6, 1988.

Finally, IIRR anticipates that its cost-share (matching funds position) will continue to meet and/or exceed U.S. AID minimum requirements. Corrective measures for maintaining appropriate cost-shares have been incorporated into IIRR's fundraising and financial management plans for 1989-90.

VII. LESSONS LEARNED/RECOMMENDATIONS

Lessons learned and recommendations will be presented in IIRR's mid-course and final year reports.

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INTERNATIONAL TECHNOLOGY DEVELOPMENT AND TRANSFER IN RURAL RECONSTRUCTION
REPORT TO THE U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)
FOR THE PERIOD JUNE 1987-MAY 1988

I. BACKGROUND AND PROJECT CONTEXT

The whole world, and the Third World in particular, today faces environment and development crises of overwhelming proportions. Environment and development are, in fact, closely linked through a complex web of cause and effect. Genuine sustainable development cannot be based on a deteriorating environmental resource base; likewise, environmental degradation is often the result of inappropriate development policies.

Faulty agricultural policies, for example, often cause land, water and forest degradation. Inappropriate energy policies of governments have resulted in acidification, deforestation and the global greenhouse effect. Similarly, short-sighted economic growth oriented policies stressing raw material, non-renewable energy-based and pollution creating production have resulted in an undercutting of the very natural resource base which is necessary to provide the sustenance for long-term development.

The use of fossil fuels has grown nearly thirty fold in the last 100 years, and three-quarters of this growth has been since 1950. More land has been cleared for cultivation in the past 100 years than in all the previous centuries combined. The world today, in fact, is close to crossing the threshold which can endanger the very survival of life on earth.

Yet, rather than abating as a result of the application of corrective measures, the global environment and development crises appear to be accelerating. This has resulted both in an overall increase in worldwide poverty and a situation of increasing inequity.

Given this context, the problem of deforestation, degradation of rainfed agricultural lands, recurrent drought and increasing marginalization of the poor currently being faced at varying degrees by countries in Asia, Africa and Latin America need urgent attention and action aimed at providing comprehensive long-term integrated solutions.

II. INTERNATIONAL TECHNOLOGY DEVELOPMENT AND TRANSFER IN RURAL RECONSTRUCTION

In 1984, the International Institute of Rural Reconstruction (IIRR) actively initiated efforts on the emerging global condition and trends along environmental degradation. Its more specific concern focused on food and agriculture in light of the growing threat to food security and to the existing balance of agricultural resources and resources utilization. Drawing on the ecological and agronomic strengths of traditional agricultural practices of Third World countries, IIRR developed, packaged and disseminated technologies on sustainable farming systems or what is alternatively known at IIRR and among its partner-groups as regenerative agriculture (Appendices 1 and 2). Today, these agricultural technologies form an important component of IIRR's four-pronged strategy for responding to the current agenda of First and Third World nations on the rising economic and ecological deficits and for fulfilling its international outreach mission. This four-pronged approach consists of:

1. training programs for Third World development agencies and practitioners
2. linkages and collaborative undertakings with Third World development agencies and practitioners
3. the promotion and strengthening of its affiliate national rural reconstruction movements in six developing countries, and
4. the encouragement of the emergence and formation of regional and national networks or associations of IIRR's training alumni in different parts of the world.

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All four strategies are synergistic and tailored to serve as the means through which IIRR seeks to influence policies, programs and practices of individuals and organizations involved in agricultural and rural development. In effect, these strategies are the vehicles through which IIRR attains its fundamental purpose of "extending to other countries of Asia, Africa and Latin America, with appropriate adaptations, the dynamic pattern of rural reconstruction."

This report aims to present IIRR's accomplishments for one year vis a vis an intent set for a three-year, AID-assisted international outreach program. The purpose, as defined, was "to increase the scope and impact of the training and outreach capability of IIRR, its network of affiliated national rural reconstruction movements (NRRMs) and its network of rural reconstruction alumni specifically through the development and transfer of technology for rural development." The format of presentation proceeds from the strategies employed by the Institute's international outreach program. Special emphasis, however, is laid on the progress and achievements along the expected program outputs as well as in the area of regenerative agriculture.

III. ACCOMPLISHMENTS: JUNE 1987-MAY 1988

A. IIRR's Training Programs for Third World Development Agencies and Practitioners

Training as a strategy of the Institute's international outreach mission aims at "more than just promoting better technicians, but creating new values, outlooks, loyalties and new practical techniques for effective work with the peasants." On this basis as well as IIRR's broadening clientele base for its training programs, the past year witnessed the Institute's increased emphasis on and refinement of the strategy. For the period under review, the concrete results of this renewed thrust for training are as follows:

1. From a total of 11 trainings conducted from June 1986 to May 1987, the past year registered an 82 percent increase at a total of 20 courses, both figures reflecting the 2 regular programs being held at the IIRR.
2. Compared to a previous 271, the Institute trained 49 percent more of this figure or an estimated number of 404 rural development managers and practitioners as well as farmers.
3. Two (2) countries -- the Fiji and Marshall Islands -- participated for the first time in IIRR's regular courses. Excluding the 2 organizations represented by the 2 participants from these countries, 17 agencies sent - also for the first time - trainees to the said regular courses.
4. There was an insignificant increase in the number of participants from Africa to the Institute's regular courses (actual difference from that for 1986-87 Senior and Middle Managers' Course is only 1 participant). Viewed from the aggregation of participants to all training programs in the past year however, the proportion of Africans trained by IIRR was a significant 24 percent or nearly one-fourth of the total number.

(It should be noted that confirmation of participation to the regular courses by individuals representing Africa-based agencies equalled the number of those for whom offers of participation were made. Various reasons on the applicants' part -- e.g., funding, travel documents -- hindered actual attendance to the training.)

5. Recruitment of participants to IIRR's regular course was one area upon which greater importance was attached. Previously attended to by an administrative staff, one (1) member of the Institute's technical pool has been assigned to play the key role for this task.

With the Institute's increased interactions with its training alumni in the past year, exploratory work is now being made with the alumni associations as well as non-alumni-based networks as partners for a wider recruitment of participants to IIRR's bi-annual courses.

6. Of the 20 training programs conducted in the past year, three (3) were on-site regional trainings and were jointly undertaken with the South Asia Rural Reconstruction Alumni Association (SARRA). There were seven (7) on-site national trainings, three (3) of which were in collaboration with the training alumni in Indonesia, Thailand and Ghana while two (2) were joint efforts with the Ghana Rural Reconstruction Movement (GhRRM).

Topical trainings totalled 19 and may be broken down into as follows:

Regenerative agriculture	- 1
Project monitoring and evaluation	- 3
Rural reconstruction	- 2
Health and family planning	- 2
Livelihood and credit; program/ project management; organizing	- 1 each

It should be pointed out however that one (1) request for training can cover one to four major specific content areas.

7. The development and refinement of (new) training modules and resource materials have equally been given a focus in the past year. Three (3) new modules and corresponding materials have been developed, namely: livelihood and credit, social analysis and the agricultural approach to family planning. Six (6) other modules and their respective materials were continuously refined. These included:

- o organizational management
- o project proposal writing
- o critical development issues
- o program/project monitoring and evaluation
- o program/project management
- o training: methodologies, materials development and training management

To further strengthen the efforts along these areas, two (2) technical staff were detailed to each concentrate on curriculum development and materials preparation.

8. Progress has likewise been had in coming up with a strengthened, internationalized culturally adaptable training curriculum that draws on the actual rural reconstruction experiences of IIRR, the NRRMs and the training alumni around the world. To date, the Institute has four (4) training curricula that have been adapted in several countries. Said curricula and the countries where these have been adapted include -

- o Regenerative agriculture in Thailand, Ghana, India, Nepal and Philippines
- o Participatory evaluation in Kenya, India and the Philippines
- o Program/project management in Indonesia, India and the Philippines
- o Family planning in Thailand and the Philippines.

9. The courses facilitated by IIRR generally tended to meet the needs and expectations of the Third World development agencies and practitioners who participated in said programs. The feedback of the participants lend credence to this, to wit:

... 1/2

a. On the collaborative trainings

- o "The training is very relevant to my organizational objectives of helping the rural people to improve their living standards through the transfer of appropriate technology in agriculture" (Participant, IIRR-GHRRM-Ghana training alumni's Workshop on Sustainable Farming Systems. 13-24 September 1987, Ghana).
- o "(I) wanted to learn how to improve our present agriculture programs and this (training) gave the information, experience and feeling that it can be done without excessive amounts of inputs" (Participant, IIRR-CARE Workshop on Regenerative Agriculture, 12-24 July 1987, Philippines).
- o "Collaborations with IIRR enable us to learn new developments and concepts being shared at IIRR's regular courses; strengthen our competence to run or manage our training programs; and present our sessions in an organized manner" (Feedback from the Institute's training alumni in Indonesia and India with whom training courses were jointly conducted in September and October 1987).

b. On the specialized trainings

- o "Data collection methods provided a sufficient overview of what the field involves; (I gained) useful pointers on monitoring, evaluation and documentation" (a Sri Lankan participant's reaction to a special session on monitoring and evaluation during the SARRA-IIRR-ANGOC Regional Leadership Training. 17-30 September 1987, India)

- o "Inputs are very timely and relevant to help uplift farmers' living conditions." (Participant, Training on Regenerative Agriculture for PRRM Negros Staff. 1-15 December 1987, Philippines).

c. On the regular courses

- o "I was quite worried whether I'll learn but (was) surprised to find that I learned more than I expected" (Participant, 1987 Senior Managers' Course. 26 October - 21 November 1987)
- o "(I am) happy to look at the model you have here. I am glad to find out that there is still hope and something can be worked out to uplift the lives of depressed people. We have the same struggles, this I can identify in the people I met in the village" (Participant, Middle Managers' Course. 8 February - 19 March 1988)
- o "A broader understanding of development and the sharing on country development experiences (was an additional result that the IIRR training had on me)." (Bangladeshi Participant, Preliminary feedback from an ongoing impact evaluation of the regular courses).
- o "(In a) youth leadership program conducted in my district, the four-fold development strategy was emphasized. This created interest and commitment on the youth." (A supervisor's feedback on a training alumnus' application of learnings. Taken from the preliminary results of an ongoing impact evaluation of the Institute's regular courses.)

The initiatives of IIRR to respond to the needs of the participants are also evident in the various special interest sessions that were held apart from tailoring the entire course on the general subjects required by them. The areas on which specific needs have been expressed and corresponding special interest sessions were conducted had included women in development, fund raising, training, project proposal writing, health, social analysis and monitoring and evaluation.

Appendix 3 provides a comparative summary of IIRR's training programs over the past two years while Appendix 4 are sample outlines of IIRR's refined modules and topical trainings; Appendix 5 presents the preliminary feedback of the Institute's training alumni for an ongoing impact evaluation of previous regular courses.

9. Linkages and Collaborative Undertakings with Third World Development Agencies and Practitioners

As a strategy of IIRR's international outreach program, establishing linkages and joint activities with local and international, governmental and non-governmental groups and individuals is an area that has gained prominence in the past year. The initiative enables IIRR to bring about the exchange of information and research findings between the Institute and other agencies. It also helps sharpen the Institute's focus on issues and gaps in knowledge which need to be addressed by its training and outreach program.

From June 1987 to May 1988, IIRR's efforts along this strategy have taken various forms. The more important ones have included the conduct of trainings with and consultancies for various agencies; participation of IIRR in trainings and/or conferences; publications; outreach projects with local and international organizations in the Philippines; and correspondences, agency visits and liaison work with development groups in the First and Third World countries. The significant gains of IIRR for each of these activities are briefly described below.

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1. Trainings and consultancies

- a. Ten (10) trainings for nine (9) development agencies were conducted by IIRR on regenerative agriculture. Of the ten, four (4) were for three (3) groups working in Third World countries; two (2) for a corresponding number of local NGOs; three (3) for an equal number of Philippine government offices; and one (1) for the beneficiaries of Sisters of Charity, a local religious order of nuns.
- b. Five (5) other training programs were also facilitated by the Institute for five (5) other groups on different topics. These included rural reconstruction, family planning, health and nutrition, project management and organizing.
- c. Three (3) consultancies were carried out by IIRR also in the past year. These consultancies were for the following organizations:
 - o Food and Agriculture Organization (FAO) of the United Nations for developing a module on family food production and crop diversification in Negros-Philippines
 - o World Bank-EDPITAF on non-formal education
 - o The Government of Papua New Guinea and the UNICEF on food production dimensions in Papua New Guinea.

2. Participation in trainings and conferences

- a. Three (3) IIRR staff attended three (3) trainings overseas. These trainings were -
 - o the "Regional Workshop in Participatory Training Methodologies". 10-24 July 1987, Seoul, Korea. Sponsor: Participatory Research in Asia (PRIA), a regional NGO based in New Delhi, India.

- o the "6th Regional Leadership Training" of SARRA-IIRR-ANGOC. 17-30 September 1987, Andhra Pradesh, India.
 - o "Course on Information Systems for Primary Health Care/Quality of Life Development." 29 September - 9 November, 1987, Bangkok, Thailand. Sponsor: ASEAN Training Center for Primary Health Care (ATC-PHC).
- b. Four other seminars were participated in by IIRR staff. The seminars were -
- o "Conference on Positive Development Programs" in October 1987. This was a collaborative activity of Community Aid Abroad (CAA), International Development Supplementary Services (IDSS) and the Philippine Rural Reconstruction Movement (PRRM).
 - o "Management and Planning for NGOs" in November 1987 which was a joint effort of the International Development Research (IDR), a US-based NGO, and the PRRM.
 - o "Peasants in Asia" workshop. 14-24 December 1987. Sponsor: Asian Cultural Forum on Development (ACFOD).
 - o "International Conference on Development Work in the Philippines." 11-22 January 1988.

3. Publications

For the period under review, IIRR (and, at times in collaboration with other agencies and colleagues) developed, published and shared various materials on its work. The more specific outputs were --

- a. the publication of three (3) International Sharing newsletters (a quarterly publication of IIRR), 4575 copies of which were mailed to the Institute's national Rural Reconstruction Movements or NRRMs, training alumni and other international development agencies in the Philippines and abroad.

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- b. the printing of three (3) documentations on the Institute and its experiences, limited copies of which were also sent to IIRR's network. These documentations included:
 - o Training Resource Book
 - o Communicating Development
 - o "Jimmy Yen: Crusader for Mankind" (written by John Hersey) Readers' Digest, October 1987.
- c. the printing (and reprinting) of 4,000 copies of the regenerative agricultural technologies kit. Copies - figure not immediately available - have been widely distributed to local and international agencies (e.g. International Development and Research Centre or IDRC, World Neighbors, Rockefeller Brothers' Foundation, CARE, etc.)
- d. the redesigning of a booklet, for adaptation in Ghana, on a botanical pesticide called Neem. About 60 copies have been printed and 30 distributed in Ghana.
- e. the production of three (3) information sheets on pesticide safety education and which have been distributed to the Philippines' Department of Agriculture staff in eight (8) provinces of the country. The same material was translated in the Thai language and distributed widely among NGOs and individuals in Northern and Northeastern Thailand.
- f. the production of a booklet "Guidelines for Proper and Safe Use of Pesticides" in English and Pilipino.
- g. the completion of a two-part regenerative agriculture sound-slides for general purpose audiences. The slides focus on problems and issues of regenerative agriculture and presents an overview of possibilities. This is being currently used in regenerative agriculture training courses.

4. Outreach projects with local and international organizations in the Philippines

Started in 1986, the Institute maintained this activity with its partners during the period under review. The outreach projects serve as demonstration and experimental sites to create awareness in the rural areas on the different options for increasing incomes and nutrient status. Brief descriptions of their progress are presented below.

- a. The outreach project in Quirino Province in Northern Luzon is a collaborative effort with the Quirino Concepts and Development Resources Center, an NGO based in the same province. The components of the project include upland-lowland rice production, bio-intensive gardening (BIG) and mini-ponds fish production. Work in the past year for this site consisted of --
 - o the construction of a second contour for the utilization of slopes in rice production
 - o the initiation of rice-fish culture - specifically, a trial in one plot using *Tilapia Nilotica* and a modern variety of rice
 - o exploratory work on fast growing nitrogen-fixing trees.

- b. The Family Food Production in Negros Province is a joint undertaking with UNICEF which commenced in May 1986. Having reached its phase-out stages, the past year's thrust was on the institutionalization of the program. The accomplishments, thus, included --
 - o Two (2) consultative meetings with representatives of the Department of Education, Culture and Sports or DECS on the schedule of BIG echo trainings and follow up planning workshops.

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- o The holding of two (2) planning workshops (the last two of a series of 4 with DECS) with 240 DECS-BIG coordinators and 124 community garden promoters or CGPs as participants to the third and fourth workshops, respectively.
- o The conduct of 5 trainings by the IIRR staff for a total of 305 participants. These participants were made up of planters and plantation administrators; village leaders and mothers; sugar workers' families; and the out-of-school youths and their parents.
- o The holding of intensive field follow-up and monitoring of local partner agencies' and CGPs' performances. Based on this activity, it was learned that the total number of BIG trainees or cooperators from June 1987 to March 1988 was 6,000; that the total number of plots in operation is 18,000; and 113, of the 202 CGPs who were originally trained, are still active.
- o The distribution of 3780 BIG kits to different users; 170 varieties of indigenous tropical crops in 18,000 seed packets to trained BIG implementors; 100 kilos of seeds to the Department of Agriculture; and seed multiplication kits to DECS.
- o The establishment of three (3) mini-ponds for fresh water eel and other adaptable species in three (3) different sites as breeding and distribution centers in the province.

This outreach project in this hunger-stricken province of the country is not without its problems. Where planters and plantation administrator opt to shift back to sugar production, for example, interest wanes among the sugar workers to promote their BIG plots. In such instances, the IIRR staff in collaboration with its partner government organizations hold continuous dialogues with the planters, the plantation administrator and the sugar workers.

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- c. The third outreach project is one that is being implemented with World Neighbors in the Bicol Province in Southern Luzon. Forged early this year to address problems on low farm yields, soil erosion fuel and fodder shortages, lack of on-farm diversification and low-income levels, accomplishments, among others, have been on --
- o Mobilization of 18 farmer cooperators as active participants to the project
 - o Two (2) farmers' classes on sweet potato and corn production as well as on bio-intensive gardening
 - o One (1) orientation/demonstration on soil and water conservation technology for seven (7) farmers

Appendix 6 are copies of some of IIRR's publications in the past year while Appendix 7 gives a more detailed description of the outreach projects with three development agencies in the Philippines.

5. Correspondences, agency visits and liaison work with development organizations and practitioners in the Third World.

From June 1987 to May 1988, IIRR reached out to an estimated number of 65 groups and institutions worldwide particularly the field and extension agencies, research organizations, training institutions, government offices, the academe and networks of NGOs as well as people's organizations. Accomplished through agency visits, liaison work and correspondences, the linkages and interactions with these organizations have also directly resulted in collaborative actions. Some groups with whom joint activities have been fostered in the past year or are currently being pursued include --

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- a. The Institute of Development Research or IDR, a US-based organization that assisted IIRR through Dr. David Brown, in the facilitation of a session on strategic planning for NGOs for the 1987 Senior Managers' Course.
- b. The Manitoba Institute of Management, a Canada-based institution which worked, through Mr. Brian Trump, with IIRR on organizational management.
- c. OXFAM-UK and NOVIB, two Europe-based funding groups, for the visit of Chinese officials to IIRR in relation to a South-South Exchange Program.
- d. Participatory Research in Asia (PRIA) in India with whom IIRR maintains information exchange.
- e. Asian Cultural Forum for Development (ACFOD), a regional network based in the Philippines, which will be sending a group of Indonesians to train on regenerative agriculture in July of this year.
- f. The Hongkong-based American Friends Service Committee (AFSC) - International Affairs Program which will be sending a group from Laos to also train on regenerative agriculture in the latter part of 1988.

Among others, the agencies with whom actual visits have been made and correspondences maintained were --

- a. The Appropriate Technology Association (ATA) in Bangkok, Thailand
 - b. Asian Institute of Technology (AIT) also in Bangkok, Thailand
 - c. International Rice Research Institute (IRRI) in Laguna, Philippines
 - d. Asian Institute for Rural Development (AIRD) in Bangalore, India
 - e. Technical Assistance for Rural Development (TARD) in Savar, Bangladesh
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- f. International Institute of Tropical Agriculture (IITA) in Ibadan, Nigeria
- g. Kenya Energy and Environment Organization (KENGO)
- h. Centro Para La Promocion y Difusion de Tecnologias Apropriadas en Los Sectores Populares (DITEC) in Colombia.

C. Promotion and Strengthening of the National Rural Reconstruction Movement (NRRMs)

Simultaneously with the above-mentioned strategies for achieving its international outreach mission, IIRR actively supported the growth of its affiliate NRRMs in the Philippines, Colombia, Guatemala, Thailand, Ghana and India. Viewed as the Institute's major partners in each major developing region of the world, the NRRMs serve as a field demonstration of the four-fold program approach as well as the fount for the design of relevant and appropriate regional trainings and outreach programs.

For the period under review, IIRR achieved the following in partnership with the NRRMs:

1. Management, financial as well as technical support in the program development and ongoing revitalization efforts at PRRM, the Ghana Rural Reconstruction Movement (GhRRM) and, to a lesser degree, the Thailand Rural Reconstruction Movement (TRRM). The more concrete results include —
 - a. Five (5) consultation meetings between the technical staff of PRRM and IIRR as well as between and among the management groups of both organizations. These enabled IIRR to extend technical inputs into the PRRM programs such as the Negros Livelihood Assistance Program and the Rural Development and Democratization Program.

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- b. Two (2) training programs for the PRRM Negros staff. The first was on soil and water conservation while the second focused on regenerative agriculture; livelihood and credit; program/project management; and monitoring and evaluation.
- c. Generation of funding support from the PEW Memorial Trust for the rejuvenation of the GhRRM.
- d. Two (2) on-site consultation meetings with the Board members and technical staff of GhRRM to further work out leadership issues and to start on the ground activities on the revitalization of the Movement.
- e. Two (2) visits to the TRRM center in Chainat, Thailand for dialogues on financial and programmatic status of this Movement and to identify areas of IIRR support. In addition, the Institute's management staff held discussions with Major General Somkuan Harikul, TRRM Executive-Director, on the occasion of his participation to the 1987 Senior Managers' Course at IIRR.
- f. Granting of a full fellowship to Maj. Gen. Harikul of TRRM for his participation in the 1987 Senior Managers' Course at IIRR.

While not on the same program footing as with their counterparts in the Philippines, Thailand and Ghana, a similar fellowship opportunity to the same training program were extended to IRRM and MGRR to further strengthen both movements' organizational capabilities.

- 2. (Conceptualization and) conduct of collaborative field operational research and documentation projects with PRRM, the Indian Rural Reconstruction Movement (IRRM) and GhRRM. More specifically --

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- a. IIRR and PRRM planned and implemented two (2) joint activities, namely: a low-input rice production program in one municipality of Negros Province, and the preparation of a complete documentation on PRRM's food aid project in the same province. In progress now on the first collaborative project are trials on fertilizer placement, use of compost, rice-fish culture, azospirilla inoculation and vegetables as component of a rice-based cropping system.

Initiated in the last quarter of 1987, the food aid project documentation is currently being put together into a first draft by PRRM on the basis of a PRRM-IIRR review with partner people's organizations on said project and additional data collection that had to be carried out. The document is expected to be ready in the third quarter of this year.

- b. IIRR and IRRM conducted its first sharing activity on the progress of their collaboration on participatory research. Apart from learning from each other their basic procedural and cultural differences in relation to the undertaking, the representatives of both organizations identified their subsequent activities.

Also as part of this project, IIRR assisted IRRM and its beneficiary groups in consolidating their 700 family case studies. The consolidated document will be published in the second half of 1988.

- c. IIRR and GhRRM begun to actively put into operation the rejuvenation of the Movement. In place now as a result of IIRR's continuing support are four (4) demonstrations on alley cropping and contour farming; a nursery for trees for the 1988 woodlot program; eight (8) Farmer Scholars who were trained on agro-forestry; and 32 Demonstrator Farmers who were also trained on agro-forestry.

Already, two (2) of the Farmers Scholars were involved as resource persons for a two-day training on alley-cropping and contour farming systems. This training, requested of GhRRM and IIRR, was for 40 clientele farmers of the Committee Churches Participation in Development (CCPD), a church-based NGO in Ghana.

In addition to the above-mentioned initiatives and accomplishments, IIRR explored the possibilities of carrying out two activities that could strengthen the relationships among the NRRMs and between the NRRMs and IIRR. These activities are --

1. Promoting NRRM-NRRM networking an initial activity of which was the visit of an MGRR staff to IIRR.
2. The holding of a seminar with the NRRMs on program/project monitoring, evaluation and documentation during which preliminary planning for future collaborative activities is also expected to take place.

Appendix 8 provides a more substantive update on the NRRMs.

D. Stimulating the Emergence and Evolution of Alumni Networks or Associations

The last but not least strategy of IIRR for its international outreach work, stimulating the growth and formation of alumni associations in different parts of the world is another area through which the Institute supports the combined and indigenous efforts of its graduates to address the prevailing needs and issues of their respective countries and/or regions. The Institute also views the associations or networks as, on the one hand, playing a role in generating and disseminating applications of the rural reconstruction philosophy and, on the other, providing active support to the NRRMs.

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For the period under review, the highlights of IIRR's work with its training alumni have included:

1. Two (2) collaborative training programs with the South Asia Rural Reconstruction Alumni Association (SARRA) and the Asian NGO Coalition (ANGOC) for the PACT-funded Learning Exchange Program. The Institute's key role in this undertaking has been in building SARRA's capabilities for training as well as monitoring, evaluation and documentation. To date, a five-member training team of IIRR alumni in India provides support roles in SARRA-organized training programs. The team has also started to share these new and/or enhanced training and monitoring and evaluation capabilities by themselves enabling teams in Bangladesh and Nepal to acquire similar skills.
2. One (1) collaborative sub-regional monitoring and follow-up activity - also with SARRA and ANGOC for the Learning Exchange Program. A first experience for IIRR on an international level, the activity also enabled the Institute to dialogue with key alumni in Bangladesh and Nepal.
3. Two (2) collaborative seminar-workshops on regenerative agriculture with the Rural Reconstruction Alumni and Friends Association (RRAFA) in Thailand. Pilot testing of the regenerative agriculture concepts and technologies are currently going on in the North, Central and North East Thailand with RRAFA providing the main follow-up.
4. One (1), and the fourth, collaborative training with a core of training alumni in Indonesia. The alumni have expressed satisfaction over its partnership with the Institute. In addition, they have invited the IIRR to have a continuing role, at least every two years, for their training programs and, possibly, to contribute to the post-training evaluation that they intend to conduct.

5. Consultations with and the mobilization of the emerging alumni association of Ghana for a workshop in the country on sustainable farming systems and for the revitalization of the GhRRM.

Where applicable, IIRR also sought to work with the alumni associations/networks in following up its other training graduates. Consequently, the Institute was able to reach and dialogue with those not visited or with whom minimum interactions were had in the past. It enabled IIRR as well to set up tentative mechanisms for the retrieval of survey instruments for an ongoing "quick and dirty" impact evaluation of its regular courses.

IV. IIRR'S THRUSTS FOR 1988-1989

Significant milestones marked IIRR's international outreach work for the period June 1987 to May 1988. Taking serious and definitive steps for reaching out to many others in the Third World countries, the Institute experienced among others, an increased number of international training programs; acquired an expanded base of agency-contacts for its outreach work; and gained more meaningful relationships with its own national movements, training alumni networks as well as other international and regional rural development organizations.

Deeply conscious of the need to know the range and depth of its progress for achieving its international outreach mission, however, IIRR realizes that its endeavours - especially that for the objective set for three years - is far from complete. As such, among those that the Institute shall continue to pursue in 1988-1989 are:

1. The setting up of appropriate mechanisms and procedures for recruitment of participants to IIRR's regular and specialized courses. Special emphases shall be given to countries and development agencies in the Third World which have not as yet been reached by IIRR.

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2. Development and/or refinement as well as conduct of topical trainings for governmental and non-governmental, local and international development organizations. With the growing demand for skills trainings by development groups, these trainings are expected to enable said groups become better equipped to respond to their grassroot-partners' and own organizational needs.
3. Greater and deliberate efforts to build on and include the experiences of the national movements and the training alumni networks in sharing the applications of the rural reconstruction philosophy and principles with others through the Institute's regular, specialized and collaborative training programs.
4. Explore and/or prepare for as well as conduct outreach activities in Latin America through the Movimiento Guatemalteco de Reconstruccion Rural (MGRR), the Movimiento Colombiano de Reconstruccion Rural (MCRR), the training alumni and the limited agencies with whom the Institute has had prior linkages. Such activities can be in the areas of collaborative trainings, collaborative field operational research projects, publications and information exchange.

Additionally, IIRR shall be carrying out the following activities which have been scheduled in early 1988 for the latter half of this year and 1989:

1. Regenerative agriculture trainings/workshops in -
 - o July 1988 at the IIRR campus for an Indonesian group
 - o August 1988 in India and November 1988 in Kenya
 - o 1989 in Guatemala
2. A seminar with the MRRMs on monitoring and evaluation at the IIRR campus in November 1988

3. Capability building for and development of communication materials/manuals on primary health care and family planning. This shall be implemented with NRRMs and/or other development organizations in the Third World.

Among those that are also being firmed up are:

1. A second formative evaluation in January 1988 with SARRA and ANGO C on the second year of the PACT-funded Learning Exchange Program
2. Exposure visits/an internship scheme for graduate students of Cornell University
3. In collaboration with IRRM, a research on a family planning program in North India
4. In partnership with SARRA, a research on the monitoring, evaluation and documentation systems of selected NGOs in India
5. An overall strategy for an evaluation system of the Institute's regular courses as well as for an impact evaluation of the previous regular trainings of IIRR.

In the pursuit of the challenges ahead, IIRR will seek to solicit the enthusiastic and active participation of kindred groups with whom it can join hands in abating the development and environment crises and, ultimately, in making a difference in the lives of the peasants all over the world.

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TECHNOLOGY AND TECHNOLOGY TRANSFER DEVELOPMENT
AT IIRR'S FIELD OPERATIONAL RESEARCH PROGRAM

The latter part of 1986 was a pivotal point in IIRR's Field Operational Research (FOR) program because it ushered in an increasing emphasis on the development testing/re-testing of low-cost, practical technologies that specifically address the needs of rural-agricultural families and communities. The year 1987 to this date in turn see preliminary promising results from this endeavor. The following is a rundown of technologies that the Institute is currently working on: low-input rice production, bio-intensive gardening, conservation of plant genetic resources, soil and water conservation, alternative pest control, culture of fresh water fishes, processing of sweet potato and coconut-based soap production. These are being undertaken with partner groups/organizations or farmer-cooperators based on specific interrelated objectives under a broad goal of enabling partner-beneficiaries improve their economic lot through low-cost, viable and environmentally sound income-generating technologies.

Another critical area of endeavor concerns the establishment and institutionalization of support systems for the Institute's technology transfer activities. This is being realized through various strategies for strengthening the assisted people's organizations (POs) so that they become an effective conduit for technology adaptations by larger rural communities.

In conjunction with the plan to revive the People's School (PS) approach to technology transfer, a reconceptualization of the "barangay scholar" component was done. This is to ensure that the new attempt builds upon the lessons of the past experience and that an enriched and strengthened "People's School and barangay scholar" strategy contributes its potentially great share in the Institute's effort to spread the benefits of its work.

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A fairly new thrust is tapping the formal education system as a channel for promoting rural reconstruction concepts, strategies and approaches through integration of the same in the regular curricula of public elementary schools and agricultural colleges. It is a widely acknowledged fact that the school plays an important strong role in the moulding of minds, attitudes and patterns of behavior of students, the possibility therefore of establishing a wider base of adaptors for its technologies, strategies, concepts and approaches cannot be overemphasized.

In the context of IIRR's outreach mission, more specifically its focus on technology transfer, the Field Operational Research program plays a vital role in that it provides the primary medium by which development, testing or re-testing and demonstration of technologies may be done by integrating them with its field operation component.

I. DEVELOPMENT AND TESTING OF LIVELIHOOD-RELATED TECHNOLOGIES

A. Regenerative Agriculture (RA) Technologies

Broadly, regenerative agriculture refers to a wide range of ecologically sound farming systems and techniques. It is characterized by use of indigenous seeds, bio-fertilizers, botanical pesticides and cultivation techniques which conserve water and enrich the natural nutrients in the soil. Its socio-economic relevance lies in its being low-cost and labor-intensive.

RA technologies that are currently studied, refined and disseminated by IIRR include:

1. Low-Input Rice Production (LIRP)

In the Philippines, as well as in other Third World countries, rice production has become increasingly expensive, both economically and environmentally. Apart from frequent price hikes on agricultural inputs which, needless to say, small farmers try

in vain to cope with, the increasing amount of chemicals modern farming requires poses continuing hazards to the ecosystem and to the health of the farmers and their families, and ultimately, the rice-consuming public. Unfortunately, however, despite the increasing usage of chemicals, yields have not increased as expected.

Much of the testing done at the Institute's LIRPP site is based on the work done at the International Rice Research Institute (IRRI). There is, however, a significant difference in the area of focus. IRRI's emphasis has been on obtaining even higher yields per unit of land and labor. As such, any findings they may obtain regarding cost reduction are reported but not necessarily aggressively promoted unless they also increase yields substantially. The emphasis at IIRR's farm, on the other hand, is on how basic research already done can be repackaged to aid small farmers in reducing costs and sustaining yields in a more ecologically balanced system.

LIRP trials are being undertaken in Navarro, General Trias (Cavite) which is a partially irrigated lowland. The major activity for the last three concluded cropping seasons involved mainly the verification of possible alternative component technologies related to land preparation practices, seed treatment and crop establishment, fertilizer management and weed control. A definition/description of these component technologies follows:

1.1 Land Preparation Practices

(a) Ratooning

Ratooning of rice means allowing the crop to regrow after its harvesting as a way of eliminating land proportion, thereby reducing costs of production.

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Based on the initial result, eight ratoon varieties were selected and are again currently on trial. Of these eight, however, IR64 was found to be the most promising.

(b) Increasing Organic Matter (OM) in Soil

In general, organic matter and soil fertility are linked. If the soil has a large amount of OM, it is also high in fertility. Sources of OM include bio-fertilizers such as green manures, azolla and micro-organisms; legumes; and, animal manure.

At the LIRPP site, increasing organic matter in soil is done through planting of legumes to develop a thick cover of nitrogen-producing plant (nitrogen being the element most needed in rice production). This cover at the same time prevents the growth of weeds.

The results of the first trial are currently on test. Conclusive results may be obtained after six croppings.

1.2 Seed Treatment and Crop Establishment

(a) Seed Treatment with Azospirilla and Azolla

Azospirilla is a nitrogen-fixing bacteria while azolla is a nitrogen-fixing water fern. The use of both for rice is not new, particularly azolla which has been used as a green manure for rice in North Vietnam and South China as early as the 11th century. The emphasis, however, is on suitability tests to determine the azolla species or strains most tolerant to local conditions/constraints.

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Results of the second trial on azospirilla inoculation indicated a substantial increase to about four tons (farmers yield ranges from two to three tons per hectare).

(b) Planting of Seeds in Rows

This practice is more time-efficient than transplanting with the added advantage of facilitating weeding through the use of simple tools.

Four tests were conducted using drum seeder for seeding of pre-germinated seeds in rows, thus allowing the use of conoweeder (a hand-pushed rotary weeder) for easy weed control. Of these tests, however, only one test resulted in straight line. The scattering was due to the heavy rains that followed just after planting. Strategies to refine this particular component technology are being looked into.

1.3 Further Management

(a) Reducing Labor for Azolla Multiplication

Because a considerable amount of labor is required in multiplying azolla, the study sought to find out alternative ways of reducing such labor, and these are: seeding of azolla into the rice paddy (full cover is attained by harvest of the crop) and, during land preparation for the second cropping, puddling of azolla into the soil. The azolla then becomes a fertilizer for the second crop.

This practice was tried in all three croppings and the results provided basis for the formulation of a package of integrated fertilizer management.

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(b) Rate and Time of Fertilizer Application

The best method of fertilizer application for low-land rice is the "best split" where fertilizers are applied in two parts: two-thirds during final harrowing and before transplanting as basal application and the remaining one-third, 5-7 days before panicle initiation (DBPI) as top dressing. However, this practice is good only if the rate of application is 60 kg. N per hectare or more.

At the LIRPP site, the emphasis is on finding the best minimum rate and optimum time of nitrogen fertilizer application with corresponding increase in yield. The study revealed that for low amount of nitrogen fertilizer like 15 kg.N/ha., the best time to apply is 5-7 DBPI where yield is 20% higher than when fertilizer is applied basally.

1.4 Weed Control

One potential substitute to herbicide application is the use of conoweeder. A study comparing, among others, the cost saving for labor between handweeding and conoweeding was done. The difference in weeding was quite substantial in that handweeding requires 16 days/ha. while conoweeding takes only four days/ha.

Outside the LIRPP site, in one assisted village called Niugan, weeding trials with two partner-cooperators were conducted. Results obtained indicate that an additional yield of four cavans of palay (50 kgs. each) out of a total of 42 cavans was realized from a rotary-weeded half-hectare ricefield compared with machete-sprayed ricefield of the same size. Cost computations showed, however, that additional net

income would come from three cavans since the fourth is the break-even point. (These data were based purely on the weeder-machete trials of one of the two cooperators since the other one used different varieties instead of the recommended IR 42).

2. Bio-Intensive Gardening (BIG)

An RA concept, bio-intensive gardening, as the name suggests, is a biological form of agriculture in which a small area of land is intensively cultivated using nature's own ingredients to rebuild and maintain the soil's productivity. Its important features include the use of double-digging method of bed preparation, the application of compost and other plant nutrients, intensive planting, crop planning and the use of indigenous vegetable varieties. Used as an approach to family-level food production, bio-intensive gardening ensures the family of a year-round supply of safe (i.e., free from pesticide residues), nutritious vegetables, the excess harvest providing extra cash to augment family income.

The BIG technology is being promoted in Cavite and Albay social laboratories through the Rural Reconstruction Facilitators (RRFs) and through theoretical and hands-on trainings in the villages and at IIRR campus where a BIG teaching and demonstration site was established for training and adaptive research purposes. In October 1987, a training on BIG technology was conducted for an upland-based PO in Cavite called "Pulong Talahiban Damayan Marketing Association" (PTDMA). Prior to the reporting period, two BIG demonstration plots were established in two different villages, also in Cavite.

Outside the social laboratory but still in Cavite, 231 BIG plots were established in Dasmariñas Bagong Bayan (DBB) through an "Inter-Agency Gardening Project for Resettled Families" jointly undertaken by the National Housing Authority (NHA), German Agency for Technical Cooperation (GTZ), the Philippine Countryside Development (PCD) - the former Philippine Rural Life Center, and the International Institute of Rural Reconstruction (IIRR).

A more dramatic spread of the BIG technology is noted in Negros Occidental where a total of 18,000 BIG plots were established during the reporting period by 6,000 BIG trainees through the UNICEF-sponsored "Family Food Production Program".

The varying extent of BIG promotion and adaptation in the three cases cited may be explained by such factors as: area-specific need for low-cost food production scheme, existing capability in vegetable production and presence or absence of administrative support machinery for BIG promotion. Unlike Cavite and Albay which have distinct capabilities in multicrop production, Negros Occidental's expertise lies solely on sugarcane production and processing. With the collapse of the sugar industry, the people of Negros became much poorer and hunger-stricken. There is thus a clear need for both skills and schemes for alternative income and food generation. Further, the BIG component in Negros has benefitted from orchestrated efforts and support of the agencies involved in the program - the IIRR, which supplies the seeds and the technical know-how; the Department of Education, Culture and Sports (DECS) and the Department of Agriculture (DA) which take care of promotional strategies; and, the UNICEF, which provides overall funding.

3. Soil and Water Conservation

This technology is especially relevant in upland farms where soil erosion and consequent depletion of soil nutrients rapidly occurs during rainy seasons. Its more important features include establishment and maintenance of soil and water conservation structures such as canals and check dams to prevent soil and water runoff, and planting of multipurpose trees alternately with crops.

A demonstration site was established in one upland village called Salvacion in Sto. Domingo, Albay. The project has 19 farmer-cooperators who all underwent orientation and trainings on soil and water conservation concept and techniques. These farmers, who are grouped into four, practice "hunglunan" (i.e., cooperative farm labor) in their respective communal farms. This cultural practice is especially in order since the technology is labor intensive.

Activities that were carried out by the cooperators include attendance at related trainings, planting of trees and grasses as hedgerows and stabilizers, construction and continuing maintenance of contour canals and checkdams, land cultivation and planting of mixed crops. The farms are currently planted to corn, peanuts, cassava and sweet potato.

4. Conservation of Plant Genetic Resources

It has been found that there are a number of hardy, indigenous plant species which are fast becoming extinct and/or are being replaced by expensive imported varieties. This RA component is being undertaken specifically to help preserve/increase vegetable genetic diversity, to establish a year round multiplication of vegetables and agro-forestry species for distribution to non-government and government agencies looking for cultivars which perform well under low-input condition and to undertake seed multiplication of selected, under-utilized sources of nitrogen, multi-purpose (for fuel, fodder and green manure) leguminous shrubs and trees.

Project site is located mainly at the IIRR campus where plant accessions to date include 844 indigenous vegetable varieties retrieved from different parts of the Philippines and abroad, 70 cultivars of Philippine banana and 14 agro-forestry species. Village-base heritage/multiplication plots are located in Cavite, Albay, Negros and many other parts of the Philippines as a result of IIRR's trainings, consultancies and seed distribution programs.

5. Alternative Pest Control

Alternative pest control emphasizes the use of botanical pesticides or aromatic herbs whose odor repels insects and insect growth. Actual trials were conducted on two plant species, namely, the indigenous "makabuhay" and neem from India. Results established the high potency of both as botanical pesticides.

A data base on plant species reportedly possessing pest control properties was procured from the University of Hawaii to serve as basis for future trials.

B. Micro-Enterprise Development and Promotion (MEDP)

1. Improving the Approach to MEDP

A working paper for conceptualizing an improved approach to micro-enterprise development and promotion (MEDP) was prepared by the Institute's Appropriate Technology Unit (ATU). The paper, titled "Developing Options for Non-land Based Income-Generating Activities for Landless Groups", emphasizes the need for a system for an MEDP program which considers such factors as beneficiary participation in the entire process of the MEDP, the importance of thorough enterprise analysis from development and business standpoints, the level and adequacy of entrepreneurial skills of program staff, linkages with critical resource institutions and sound marketing strategies.

The MEDP paper presents as yet an incomplete range of options, each provided with a brief industry analysis, for landless and nearlandless groups to choose from, to wit: mushroom production, coconut-based products, weeding services, dried sweet potato chips, rice straw, paper making, rice-milling/trading, essential oil production and corn-shelling services.

ATU hired a new staff whose expertise lies in investment analysis to primemove MEDP's new thrust.

2. MEDP Trial Demonstrations

2.1 Culture of Fresh Water Fishes

The culture of fresh water fishes is a most promising endeavor in terms of food security and income-generation since it provides a cheap source of animal protein and a fair additional income to meet the other needs of the family.

Trials are being conducted in four villages in Cavite and these include those for mini-ponds, duck-fish and rice-fish cultures. The more advanced trial is on rice-fish culture which has four farmer-cooperators. Initial harvests indicate an average of 500 kgs. of fish/ha. or an additional net income of P5,000 (or \$300) in four months. On the other hand, fish culture mini-ponds has 15 cooperators while duck-fish has two. From these demonstrations, 20 more cooperators signified their interest to undertake fresh water fish culture.

IIRR maintains in-campus mini-ponds for adaptive research and dispersal purposes. These are regularly stocked with breeders and fingerlings of which there are currently five species (i.e., loach, rice field eel, tilapia, carp and

catfish). Other sources of materials for dispersal include the Bureau of Fish and Aquatic Resources (BFAR), Central Luzon State University (CLSU), among many others. From these combined sources, a total of 5,115 breeders and fingerlings were dispersed from October 1987 to March 1988.

2.2 Non-Land Based MEDP

(a) Coconut-based Soap Production

Prior to the reporting period, IIRR and the cooperating landless group concluded a six-month trial on coconut-based soap production. Based on a cost and return analysis done by IIRR with the group, the latter decided to go into soap production as an income-generating project.

Over a year since project inception, the same project has had its share of problems common to new, small-scale enterprise. Foremost of these are: sources of cheap raw materials, product marketing and promotion. Thus, current facilitation thrusts now include assistance in sourcing of raw materials and in product sales and promotion. The first is being addressed at POLFC (People's Organization Loan Fund Committee) level of inter-PO project deliberations/planning while the second is being undertaken through direct linkage with other IIRR-assisted groups and organizations as sales outlets.

(b) Processing of Sweet Potato Into Snack Chips

Demonstration sites for this trial were established in the villages of Hinyero (Cavite) and in Lidong (Albay).

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Cooperating groups were linked with appropriate institutions (e.g., Sweet Potato Producers and Processors of the Philippines) for trainings on sweet potato production, processing and product market potentials.

ATU loaned one unit of chipping machine to these groups for purposes of the project.

II. INSTITUTIONALIZING SUPPORT SYSTEMS FOR TECHNOLOGY TRANSFER

A. Strengthening People's Organizations

1. Beneficiary Participation in Credit Program Management

As conceived with the assisted POs themselves, beneficiary participation in the management of the Institute's credit program, the Project Loan Fund (PLF), will entail a two-stage process. The first stage involves the creation of a People's Organization Loan Fund Committee (POLFC) and, under it, three POLFC sub-divisions were PO aggrupation is based on the upland, lowland and non-land based type of farming/income-generating activities of the members. At this stage, the POs are expected to acquire theoretical as well as (and more so) practical knowledge and skills on credit program management in preparation for the next stage. The second stage of the process involved actual sitting in and participation of POLFC representatives in loan deliberations and other matters related to the credit program during meetings of the Institute's Project Loan Fund Committee (PLFC), the body in-charge of Institute's credit program.

The POLFC became functional in November 11, 1986. At the outset, the POLFC had 21 member POs. The number increased to 33 as of March 1988. Each member PO is entitled to two representatives - one being the official representative while the other serving as alternate. From inception until this writing, the

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POLFC undertook the following activities: monthly divisional and all-division quarterly meetings; processing of loan applications; attendance at IIRR sponsored structured trainings; formulation of POLFC loan policies and procedures; PO project visits; and, a series of workshops participated in by both the POLFC and the project team concerned. (No distinction is made for activities occurring strictly during the reporting period since, generally, all those mentioned are on-going.)

In terms of two specific activities which may be considered as the theoretical and practical base of POLFC's preparation for the next stage, structured trainings focused on such areas as orientation on IIRR's credit program, the POLFC concept, team building, parliamentary procedures and financial management. Processing of loans, on the other hand, mainly involved analysis of project feasibility study and passing recommendation (either approval or disapproval) on the same for PLFC's consideration. It must be pointed out that POLFC's power at this stage was purely recommendatory since the final decision on whether to approve or disapprove PO loan application was entirely the prerogative of the Project Loan Fund Committee of IIRR. For 1987, POLFC processed 15 PO loan applications, of which 14 were approved by the PLFC.

With reference to the timeframe of the two-stage process, the period from inception in 1986 to March 1988 corresponds to the first stage. As early as the middle of 1987, however, transition from the first to the second stage has gradually emerged. Activities which have marked the transition period involved various Institute-level and combined project team and POLFC workshops to discuss issues on POLFC operation, its relationship with the PLFC and a POLFC structure that is adapted to the envisioned second stage. The cumulative outputs of these workshops were further discussed and refined in a joint IIRR-POLFC workshop held in March 27-28, 1988. The more significant areas dealt with centered on

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the new POLFC structure which is to introduce the second stage, the broadened functions and responsibilities of the POLFC particularly in relation to now having the final authority to approve or disapprove PO loan applications with loan value up to a certain limit and subject to a probationary period; and, the agreed scheme for POLFC capital build-up program.

2. Organization and Establishment of a "People's Bank" or its Equivalent

When the POLFC was conceived and created, it was meant to be a step towards the complete financial self-reliance of the beneficiary POs through the organization and establishment of a "people's bank" owned, managed and controlled by the POs themselves. Thus, while being a mechanism for effecting beneficiary participation in IIRR's credit program management, the POLFC simultaneously serves as vehicle for building the capabilities of the POs in financial management towards the "people's bank" objective.

The Institute's Credit Support Unit (CSU), formerly known as the POLFC project team, undertook interrelated activities in support of this objective.

In mid 1987, an initial assessment of the POLFC performance was conducted by then POLFC project team to study, among other things, the range of capital build-up schemes and modes of loan repayment at individual PO level and the difficulties encountered in these areas. The results of this assessment provided basis for the project team's recommendations related to more innovative, feasible capital generation schemes at POLFC level with a view towards the POLFC coming up to the required capitalization for a financing institution. In a joint CSU-POLFC workshop conducted on March 27-28, 1988, one major discussion area centered on capital-equity formation. Mutual agreement on this aspect was arrived at specifically the amount of contribution of POs per year for equity building.

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Likewise, a number of consultations with authorities on rural credit financing were conducted. Foremost of these include consultation dialogues with a rural banking expert currently connected with the Philippine Development Insurance Corporation (PDIC) and the chairman of the Department of Rural Banks, Savings and Credit Associations of the Central Bank (CB) of the Philippines. Based on the advice of these authorities and the moratorium for accepting applications for the establishment of rural banks and similar financing institutions, it was decided at CSU level to pursue instead the organization of an inter-lending cooperative federation, the more likely form that the POLFC is to assume eventually. The writing of a project feasibility study on this is in process.

3. Establishment of Inter-PO Cooperative Economic Enterprise

IIRR encourages the establishment of inter-PO cooperative enterprises from among its assisted organizations with a view towards enabling them to achieve a desired extent of socio-economic and political leverage for their own growth and development and those of the larger communities they are expected to serve and of which they are a part. Of this effort, achievements thus far include:

3.1 Preparatory activities towards the establishment of a Rice and Corn Service Center (RCSC) by the Barangay Scholars Marketing Cooperative, Inc. (BSMCI)

The Barangay Scholars Marketing Cooperative, Inc. (BSMCI) is a municipal-level PO composed of 201 members (as of December 31, 1987). Its main income-generating activity involves trading of agricultural inputs. Other income-generating projects include corn and watermelon production and piggery.

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BSMCI primarily benefits its members through low-cost agri-inputs. To a larger extent, BSMCI's main economic activity has helped dissuade members from availing of production loan from traditional moneylenders who demand as much as 60% interest on loans made in one harvest season (or four months). To further the gains in this regard, BSMCI has thought of putting up a rice and corn service center which will provide integrated post production services (i.e., milling, storing and marketing of produce) to members and other small farmers, thereby, and hopefully, making farming a truly productive endeavor, income-wise, to the tillers of the soil.

A range of preparatory activities have been undertaken, in view of this objective, namely: structured awareness-raising sessions to enable members to realize the need to put up a countervailing force to the existing production system which is for the most part exploitative; consultations with another IIRR-assisted PO (the Navarro Damayan Marketing Association) which operates one unit of rice thresher and is similarly engaged in fertilizer trading and conduct of survey with BSMCI members to determine policies that should govern the operation of the RCSC; and, linkage with the Department of Trade and Industry (DTI) and the National Meat Inspection Commission (NMIC) for assistance in project feasibility study preparation and for identification of possible areas for collaboration. Construction of the center is expected to start in July and completed and become operational by September 1988.

3.2 Preparatory activities towards the establishment of a municipal-level abattoir by the Dasmariñas Abattoir and Marketing Cooperative

This is another effort of a municipal-level PO, the Dasmariñas Abattoir and Marketing Cooperative (DAMARCO), that is meant to improve the economic lot of its members. The abattoir, once realized, will be an important physical resource and service entity as it will fill a long-standing need for high standard abattoir which can process a substantial percentage of marketable livestock from several large farms in Cavite province. The few existing ones, let alone their sub-standard practices in slaughtering, do not have such capacity. Thus, animals are brought out of Cavite for slaughtering which, in turn, accounts for the high price and deficiency of meat supply in Cavite. The socio-economic factor involved at the level of the farmers is that with the establishment of the abattoir, the difficulty of processing animals into red meat and marketing of the same at a price that is fair enough for this producers will be eased up and, hopefully, eliminated in time.

DAMARCO's chapter groups expressed their interest in the project and are undertaking activities in support thereof, namely: generation of capital contribution, sponsorship of training on meat inspection for two members and coordinating with the National Meat Inspection Commission (NMIC) for technical consultations.

The project feasibility study was submitted by IIRR to a European funding agency late 1987 and is still awaiting approval from the latter for project implementation to go full swing.

4. Operationalizing the Concept of Indigenous Facilitators as Partners to Community Organizing and Development

There are three related phases by which the concept above can be implemented, namely: selection, training and actual mobilization of indigenous facilitators.

At IIRR, this effort is directly related to the Institute's plan to undertake selective or total phase-out of assistance from the current pilot villages to be able to pursue higher-level type of facilitation work with the more advanced POs. To prevent the dislocation of these villages and to ensure that the process of development still go on, even after phase out, selection, training and mobilization of indigenous facilitators will be undertaken.

It should be noted, however, that before IIRR came up with deliberate plans to pursue IF conceptualization and implementation, at least four models of an indigenous facilitator have evolved and continue to evolve. These models are as follows:

4.1 SWLO Model

Silang Women Leaders Organization (SWLO) is a municipal-level organization of 23 IIRR-trained barangay scholars. The organization, since its inception, has undertaken horticulture projects as its main income-generating activity. In addition, individual members are engaged in a variety of secondary economic activities.

Presently, SWLO has five chapter groups located in three villages. The SWLO has been responsible for these groups' development orientation and training and linkages with resource institutions for their respective income-generating projects.

Operationally, as IF, SWLO is divided into five teams where each team is assigned to facilitate one chapter group.

4.2 SMT Model

The "Samahang Magsasaka ng Tartaria" (SMT) is an organized group of 48 farmers engaged in cattle fattening, rice retail and coffee trading. It is one of the more progressive IIRR-assisted groups in terms of viability of projects and its capability to self-finance two of its projects (i.e., coffee trading and rice retail).

SMT's success inspired the formation of another group of farmers in a nearby village, called "Samahang Magsasaka ng Carmen". Operationally, as IF, SMT as a whole group supervises and monitors the SMC. SMT was responsible for the latter's linkage with IIRR for credit financing.

4.3 DATU Model

DATU is a federation of seven sitio-based (sub-village) interest groups, each engaged in different livelihood projects most of which involve marginal farming, with small livestock component. DATU operates an agri-input cooperative store the initial financing for which come from member groups' subscriptions. To better serve the agri-input need of its members, DATU applied for and was able to acquire capital loans from IIRR.

Operationally as IF, DATU provides a wider forum for discussion and resolution of issues and problems affecting the members including those of their respective communities. Unlike the two preceding models, however, monitoring on the part of DATU occurs only in conjunction with group representatives' attendance at general assemblies and monthly meetings.

4.4 IR Model

In the context of an activity for retrieving and updating information regarding its assisted villages, IIRR conducted trainings for indigenous researchers who were subsequently involved in data gathering activities (See Section D, "People's Participation in the Operationalization of a Village Information System" or VIS, page 51). The idea was to involve the members of the assisted villages, depending on the outcome of a pilot experience. In four sub-villages of San Francisco (the pilot area) which were not yet covered by IIRR, the indigenous researchers trained serve as the "animators" for group/community organizing resulting in the formation of new beneficiary groups. Thus, apart from the original intention, the indigenous researchers have also become indigenous facilitators.

The foregoing models, in addition to IIRR's previous experiences with barangay scholars (BS) and the People's School (PS), provide bases for the refinement of the IF concept. A separate Project Development Team (PDT) was constituted specifically to look into, define/refine the concept based on pertinent literature, present IF models that are evolving and IIRR's previous experiences with IF element. From this mandate, the PDT came up with an IF concept paper and a training curriculum framework for indigenous facilitators.

At the village level, two or three staggered meetings were held by the RRFs to evoke from the POs their concept of indigenous facilitator, the selection criteria to use and the areas of knowledge, skills and attitudes that should be considered for the training of IFs. Integrating the outputs of this effort into the IF concept paper and the training curriculum, without doubt, further enriched and made relevant the concept of and the training design for indigenous facilitators.

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Initial IF trainings will have three batches of trainees consisting of about 30 participants each. These trainings will take place at IIRR on: first batch, April 4-7; second batch, April 11-14; third batch, April 18-21 this year.

B. Reconceptualization of the "Barangay Scholar" Concept

Through its People's School System (PSS) project, which was initiated in the mid-seventies, IIRR developed and tested the concept of volunteer para-professionals, called Barangay Scholars (BSs) in various livelihood, health and education disciplines. On the whole, the original concept of training and mobilizing barangay scholars for technology transfer proved to be a sound strategy. This is evident in the number of adaptations of the concept occurring among government agencies in the Philippines, among which include: the Ministry of Agriculture and Food (MAF), which adapted the concept through its farmer-cooperator approach to the extension of agricultural services; the Ministry of Health (MOH), which adapted the concept through its "Barangay Health Worker" approach to the delivery of primary health care services; and, the National Nutrition Center (NNC), which adapted the concept through its "Barangay Nutrition Scholar" approach to the delivery of nutrition education/services to the rural areas. Other adaptations have likewise been incorporated into their programs by IIRR's training alumni, including those of its affiliate Movimiento Guatemalteco de Reconstruccion Rural (MGRR), which adapted the concept through its "promotores rurales" and the Indian Rural Reconstruction Movement (IRRM), through its "village animators".

All these notwithstanding, the original concept suffered from some weaknesses most crucial of which include the fact that the original concept did not provide a clear direction towards which the barangay scholars could move after once a specific technology is acquired and mastered. In addition, the development context for which technology transfer should be viewed and undertaken was missed out or was not given enough emphasis in the training program for the BSs.

The reconceptualization and broadening of the BS concept is a current effort at improving/building upon the original concept as it was implemented in the mid-seventies. The proposed training scheme for the new batch of barangay scholars (active BSs trained under the old People's School would also be encouraged to participate in the new training program) reflects the Institute's attempt to address the gap in the old training program by providing balance between technical skills on the one hand and organizational/communication skills and development orientation on the other. To ensure institutional support and spontaneous diffusion of technology, the barangay scholars will be encouraged to attach themselves to IIRR-assisted POs, that is if they are not yet members of any organized group. This is unlike the old concept where while being " beholden " to the whole community which financed his training, the barangay scholar was not accountable to any group for non-performance of his expected function nor did he enjoy any continuing form of institutional support to sustain his interest and activities.

The improved concept will be tried out in future appropriate technology training program and the revival of the People's School strategy. Meanwhile, the concept is being shared with the Ghana Rural Reconstruction Movement (GhRRM) through training of farmer-cooperators for its agro-forestry projects.

C. Promoting RR Philosophy and Principles Through the Formal Education System

1. Rural Reconstruction in Agricultural Schools

This project is being undertaken to influence agricultural schools to disseminate RR concepts and practices through the integration of the same in their regular curricula, hopefully, to make students better extension workers once they get out of college. The possibility of implementing this project with two agricultural schools in Cavite was explored. In the end, however, partnership materialized with only one of these schools, namely, the Don Severino Agricultural College (DSAC).

The following activities were so far undertaken: project orientation session with DSAC key staff; workshop on RR curriculum; conduct of a six-hour module on rural reconstruction; administration of pre and post tests; evaluation workshop; and, planning for the institutionalization of the RR module within DSAC's regular curriculum.

1.1 Project Orientation Session held in June 5, 1987

The session was facilitated by IIRR's Project Development Team (PDT) concerned. In attendance were members of DSAC's curriculum committee and professors in-charge of Agricultural Extension 32, a three-unit course in which the RR module would be integrated for a six-hour trial (spread out in six sessions for two weeks).

1.2 Workshop on RR Curriculum held in June 10, 1987

The PDT and DSAC's curriculum committee reviewed the content areas of Agricultural Extension 32 which were then matched with topics from the RR curriculum. Subsequently, the Chairman of DSAC's curriculum committee suggested that IIRR run a six-hour module to enable them to better understand the content areas of the RR curriculum.

1.3 Conduct of Six-Hour Module on Rural Reconstruction held from September 4 to 18, 1987

The module was conducted at DSAC on a one hour per day session on Mondays, Wednesdays and Fridays for two weeks. An additional day was used to integrate the whole session with that of the previous sessions of the students under Agricultural Extension 32.

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1.4 Administration of Pre and Post Tests and Daily Feedback

Pre and post tests were administered before the first session started and at the end of the last session. The purpose was to measure the effect of the six-hour module based on the difference between the pre and post tests results.

In addition, a daily feedback questionnaire was also administered. The results were used by the session facilitators mainly to clarify some of the terms pointed by the students as not clear.

1.5 Conduct of Evaluation Workshop in October 3, 1987

An oral evaluation was conducted for two weeks after the last regular session. The venue was at IIRR. A total of 24 student representatives (out of 56 who attended the RR module) were selected to participate in this evaluation. Also in attendance were two professors and a graduate student who joined as observer.

This oral evaluation was conducted specifically to identify the factors which contributed to the post test results and to provide basis for the formulation of recommendation on the use of the RR module in enriching the Agricultural Extension 32 course in terms of content and presentation.

1.6 Planning for the Integration of the RR Module in DSAC's Regular Curriculum

Based on the results obtained from pre and post tests, daily feedback and oral evaluation workshop, the RR module was summarily viewed by the students as an enrichment of the curriculum for Agricultural Extension 32. There was a general feeling that the RR module be integrated into the course or be treated as one course complete with practicum.

In a meeting between IIRR PDT and DSAC's curriculum committee, a consensus to integrate the RR module in DSAC's curriculum was arrived at. In this regard, both parties agreed to conduct planning sessions on the next steps to undertake in preparation for DSAC's adaptation of the RR module.

At the regular international training of IIRR held from February 8 to March 19, 1988, one DSAC faculty staff became a participant on fellowship grant from the Institute as part of the overall effort just described.

2. Rural Reconstruction in Elementary Schools

As in the foregoing project, this one also aims to enrich the elementary school curriculum through the integration of rural - development concepts and skills relevant in rural agricultural communities in as many subjects taught in the different grade levels of the elementary school as appropriate.

The elementary level of schooling is crucial because it establishes the foundation on which subsequent educational inputs, both formal and informal, are based. In the Philippines, as in many Third World countries, this level of schooling becomes even more crucial in that from this level a larger percentage are

unable to proceed to the next higher levels (secondary and tertiary) for various reasons, most common of which is poverty. It is therefore imperative that the curriculum at this level adequately ensure that practical knowledge and skills be acquired by the students to enable them to cope with the needs, concerns and challenges related to the growing-up and mature stages of their life.

A public elementary school was chosen as project partner further because it has a great potential for replicating the project, the majority of elementary schools in the Philippines-being public in character.

Project implementation started in May 1987. Upon completion of its one-year trial, the Institute together with its project partner will decide either to try the project for a second year, terminate it or recommend its replication in all other rural public elementary schools on specific area wide level.

The main activities undertaken from start of public implementation to date include: conduct of seminar-workshop for project participants consisting mainly of teachers from the partner school, field follow-up to determine type of assistance needed and planning for a mid-year assessment of the project.

2.1 Seminar Workshop for Project Participants held from May 13 to June 30, 1987

Twelve teachers participated in this seminar-workshop held in campus. Four modules consisted this activity, namely: History and Philosophy of IRR; Curriculum Development; Communication in Development; and, Plan of Action. The first and last modules dealt more on the conceptual aspect of the project while the second and third dealt with skills

(translating concept into practice) necessary in actual project implementation. Workshop outputs for the second and third modules include 32 sample lesson plans incorporating RR concepts and corresponding teaching aids.

2.2 Field Follow-Up

Follow-up activities were undertaken by the Project Development Team (PDT) involved to observe the integration of RR concepts being done at classroom level and to determine the necessary form of assistance needed by the project implementors, the teachers. Assistance extended based on requests include provision of resource speaker from IIRR, development of teaching aids and sitting in as observer to feedback strengths and weaknesses of classroom facilitation.

2.3 Mid-Year Assessment

Planning for this activity has already been undertaken, resulting in the formulation of a draft design. The activity, however, is being delayed because of the reorganization at IIRR resulting in the shift of staff assignments and responsibilities, transfer of some PDT members to other units and the retirement of the project team leader.

D. People's Participation in the Operationalization of a Village Information System (VIS)

The Village Information System (VIS), which was initiated in May 1986, was first an attempt on the part of IIRR to systematize the collection, updation and retrieval of data to facilitate the utilization of the same for learning, sharing, planning, and monitoring purposes. The infusion of the concept of participatory research (PR) subsequently evolved with the implementation of the VIS.

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The VIS was piloted as earlier stated, in a village called San Francisco (Cavite Social Laboratory) where three sub-villages were active partner communities while the remaining four were potential expansion areas. In an effort to involve the people in this pilot experience, IIR conducted two trainings for indigenous researchers in May and December of 1986. Content areas include concept and principles of participatory research, data gathering methodologies and data analysis and interpretation. The first training had 16 participants, while the second one had 14 coming from the first batch of trainees. These trained indigenous researchers were subsequently involved in the data gathering activities for the PO study that the Institute was then conducting. Although there was an intention to involve the same indigenous researchers in the data analysis stage, such intent did not materialize owing to at least two factors. First, for purposes of the community where the indigenous researchers belong, the data gathered did not have the right focus upon which to base community planning activity towards specific and responsive action projects. And, second, data analysis with the indigenous researchers will entail the delay of the completion of the PO study which had a pre-set timeframe.

In 1987, the Curriculum Committee for the training of indigenous researchers conducted a series of meetings to plan and design a third training. This training was supposed to complete the previous two by equipping the indigenous researchers with skills on data analysis and interpretation as basis for definitive action to take such as spear-heading planning for issue-sensitive community projects.

At the Institute, what had been the bottleneck of this effort was the growing concern then on the need to reflect on and assess the VIS pilot test as an experience in participatory research. More specifically, there are issues and concerns which need to be threshed out and resolved regarding the PR element and its sustainability in the whole VIS project.

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III. CONCLUSION

Six areas shall be the foci of the Institute's FOR program in the immediate future. These include --

1. Preparation of cost and return analyses for the different Low-Input Rice Production (LIRP) technologies and for combinations of these technologies to provide farmers with sound basis for technology adaptation and as institute's basis for aggressive promotion of the same
2. Conceptualization and implementation of the improved approach to Micro Enterprise Development and Promotion (MEDP) program
3. Preparation of cost and return analyses for fish culture
4. Selection, training and continuing capability building for new Barangay Scholars
5. Trainings in appropriate technologies with conclusive results
6. Evaluation of the project "Rural Reconstruction in Agricultural Schools".

CHARACTERISTICS OF AN IDEAL REGNERATIVE AGRICULTURAL SYSTEM
FOR SMALL FARMERS IN THE HUMID TROPICS

1. Relies more on internal resources of the farm than on external resources (Rodale, 1983) e.g. rainwater atmospheric nitrogen, animal manure, household labour.
2. Emphasizes a diversity of farm enterprises or activities (as opposed to single enterprises/monocrops).
3. Recycles plant wastes (e.g. straw, stubble) by composting, feeding livestock or merely incorporation into the soil.
4. Minimizes the use of chemical inputs such as fertilizers or pesticides (the transition to reduced levels is gradual not abrupt). It may not be feasible to eliminate chemicals on a farm scale, in humid tropics, due to heavy rainfall (leaching) and high humidity (more diseases).
5. Taps atmospheric Nitrogen (as much as 78% of the air is Nitrogen) by introducing leguminous crops into the annual cropping cycle, e.g. mung bean or cowpea rotations following rice or corn.
6. Wherever feasible (e.g. in upland, rainfed crop lands) intercropping based on cereal-legume combinations is encouraged (e.g. growing corn and beans simultaneously).
7. Use of bio-fertilizers such as Azolla or Azospirilla or blue-green algae in lowland rice. As much as 30-50% reduction in chemical Nitrogen needs can be achieved.

8. Collects as much of the rain which falls on the farm through contour canals (on slopy lands) and by increasing the soil's organic matter content (thereby absorbing more water). The presence of trees on the farm (see No. 14) also encourages the deeper penetration of rainfall falling on the soil surface. The presence of crop residues/mulch, etc. reduces runoff of water and subsequent evaporation of water. Small farm ponds store runoff water.
9. Tillage on small farms (1 hectare and less) is animal-based (draught carabaos or cattle). Such animals are raised on farm by-products (e.g. straw, leaf toppings, etc.).
10. Open-pollinated high yielding varieties of crops are preferred to hybrids for farm-scale production. Farmers can retain such seeds for several crop seasons.
11. Heirloom or tradition vegetable varieties are raised in backyard family food gardens (Bio-intensive gardens) as one way to conserve such as varieties for future generations.
12. Genetic diversity within crops (farm or garden scale) is encouraged i.e. to grow two or more varieties of each crop rather than limit the cultivation to one variety, in order to reduce the risks of crop failure.
13. The area under annual crops is reduced, devoting more space to perennial crops (e.g. coffee, fruit trees, other plantations crops having local and international demand). However the reduced area under annual crops is then intensively cultivated. Perennial crops are, in the long run, more reliable sources of income and less susceptible to drought and diseases and require overall less labour. Diversified, mixed species of trees are encouraged rather than mass plantings of one kind of tree crop. Growing mixed tree species (of different heights) serves to maximize the vertical space above the ground using solar energy more efficiently.

14. The family fuel needs (for home cooking, heating or food processing/drying) is met by multipurpose (fuel, fodder, green manure) tree species grown on farms. Such trees can be grown in one or more of the following ways: windbreaks around farm, intensive woodlots, on lands with slopes greater than 60% or alley-cropping (growing rows of trees every four meters apart between annual crops such as corn or upland rice).
15. Intensive woodlots of fast growing Nitrogen fixing trees are raised in slopy or elevated portions of the farm to exploit the income generating potential of trees for housing materials or even fuel. Intensive woodlots of certain fast growing species can earn between P5,000-P20,000 per year per 1,000 sq. meters starting in the third year onwards.
16. Market-oriented vegetable gardens are maintained throughout the year. Such gardens ensure weekly flows of hard cash for daily subsistence needs. Such intensively cultivated gardens should be limited to between 100-500 sq. meter plots and will ensure a minimum of P100-P500 net income per month. If markets are good and off-season planting is undertaken, a five-fold increase in returns is feasible.
17. Diversified farms permit the sale of a range of products rather than large quantities of a single product. This way marketing can be done locally (municipality level) thereby reducing transportation costs and eliminating or reducing the number of middlemen. All this means higher returns for the farmer.
18. Adds value to farm produce by processing crops as much as possible (e.g. converting peanut to oil or butter, cassava to flour or chips, milk to home-made "cheese", coconut to oil or candies).
19. Minimum tillage is practiced in the second season as a way of conserving sub-soil moisture reserves. This can be done by sowing legumes (preferred crop) directly into the stubble or crop residue of the previous crop (without ploughing the land).

20. Some form of fish-culture is practiced on the farm. Under conditions of highly limited water supply backyard-scale culture of fish species such as mudfish and eels, tolerant of stagnant water is undertaken in containers such as drums or concrete structures. Where more water is available, 50 sq. meter sized ponds are ideal for raising fish species for augmenting fish supplies. In lowland-rice conditions, rice-fish culture systems based on trenches (as refuges during dry season months) are advocated. Carp and tilapia have been tested for such systems.
21. Partial or total pest control is achieved through: i) the creation of a healthy soils; ii) diverse cropping; iii) maintenance of predators; iv) growing of resistant varieties; v) reduced crop stress. If insect pests are still a problem, need-based rather than calendar-based spraying is undertaken.
22. Most of the labour is provided by the farm family. The labour demand is evenly spread in a diversified farm as opposed to single-enterprise farms where labour-demand peaks are a phenomenon to contend with. If labour has to be hired, then it must be viewed as employment generation for the landless/underemployed. However what is important to ensure is that hired-labour makes economic sense (cost-benefit).
23. Livestock within an integrated operation make sense particularly if it provides an opportunity for recycling crop-wastes or can be integrated with fish culture or cereal crops (e.g. the manure from 100 broiler birds is enough to raise 1 hectare of rice). Commercially-oriented livestock enterprises must rely primarily on internal resources of the farm (Azolla, fodder trees, snails, rice bran, banana trunks, etc.) and less on external resources.

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SUMMARY OF IIRR'S INTERNATIONAL TRAINING PROGRAMS: JUNE 1986-MAY 1987
AND JUNE 1987-MAY 1988

T I T L E	D A T E	N O . O F P A R T I - C I P A N T S	R E L E V A N T N O T E S
June 1986 - May 1987			
I. Regular Trainings			
1. 1986 Senior Managers' Course	3-28 November 1986	17	5 participants from Africa attended this training
2. 1987 Middle Managers' Course	16 February - 4 March 1987	26	Maldives was represented for the first time; 2 Participants from Africa attended this training
II. Specialized Trainings			
1. Work-Study program on Regenerative Agriculture for the Executive Director of the Andhra Pradesh Rural Reconstruction Mission, India	28 July - 6 September 1986	1	Although primarily focused on regenerative agriculture, the work-study also included exposure to and in-depth study of some strategies and approaches in self-government, health, livelihood and capability building activities for women. The trainee presently serves as consultant to both IRRM and SARRA.

T I T L E	D A T E	N O . O F P A R T I - C I P A N T S	R E L E V A N T N O T E S
2. Seminar on Participatory Evaluation in Primary Health Care with the Voluntary Agencies Development Assistance (VADA), Kenya	1-6 September 1986	25	Facilitation of this seminar also enabled the IIRR training staff to participate in the VADA-sponsored conference for heads of non-government organizations (NGOs) in Kenya held from September 16-18, 1986.
3. Seminar on Rural Reconstruction with CARE-Kenya	10-12 September 1986	20	
4. Observation Tour on Family Planning and Community Participation (for Yemenis)	4-19 October 1987	4	
5. Training for staff of UPLB-College of Agriculture on Leadership and Participatory Rural Development	14-16 January 1987	20	
6. Special Skills Training for Peace Corps Volunteers	13-21 March 1987	35	
III. Collaborative Trainings			
1. Trainors' Training Program with the Sarvodaya Shramadana Movement - Sri Lanka	9 June- 10 July 1986	36	

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T I T L E	D A T E	N O . O F P A R T I - C I P A N T S	R E L E V A N T N O T E S
2. Collaborative Training with CORNELL-VISCA on Farming Systems Research and Extension (FSRE)	7-11 July 1986	57	As a result of the effective handling of this module, IIRR was involved in subsequent FSRE modules conducted at the Visayas College of Agriculture from July 12-21, 1986
3. Training with Bina Swadaya (BS) and Yayasan Indonesia Sejahtera (YIS) on Community Self-Reliance for RD Workers, Indonesia	7 July - August 1986	30	This is the third time that IIRR collaborated with the Bina Swadaya (BS) and the Yayasan Indonesia Sejahtera (YIS). The first two collaborative trainings occurred in 1985. For 1988, another collaborative training with YIS or another Indonesian PVO is being envisioned to take place
SUMMARY: =====			
TOTAL NO. OF TRAININGS :	11		
TOTAL NO. OF PARTICIPANTS :	271		
NO. OF NEW COUNTRIES REPRESENTED :	1		
% OF AFRICANS VS. TOTAL NO. OF PARTICIPANTS :	19		

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T I T L E	D A T E	N O . O F P A R T I - C I P A N T S	R E L E V A N T N O T E S
June 1987 - May 1988			
I. Regular Trainings			
1. 1987 Senior Managers' Course	26 October - 21 November 1987	16	4 Participants from Africa participated in this training
2. 1988 Middle Managers' Course	3 February - 19 March 1988	15	Fiji and Marshal Islands were represented for the first time; 4 Participants attended this training
II. Specialized Trainings			
1. Orientation on Rural Reconstruction for IHI Fellows	4-10; 15-20 June 1987	6	
2. Training on Soil and Water Conservation with PRRM	9-13 June 1987	21	
3. Work-Study Program on Regenerative Agriculture for a staff of Bangladesh Rural Advancement Committee (BRAC)	19-22 October 1987	1	
4. Training on Regenerative Agriculture; Livelihood and Credit; Program/Project Management; Monitoring and Evaluation with PRRM Negros Staff	1-17 December 1987		

T I T L E	D A T E	N O . O F P A R T I - C I P A N T S	R E L E V A N T N O T E S
5. Training on Alley Cropping and Contour Farming Systems with the Committee Churches Participation in Development (CCPD), Ghana	5-6 April 1988	40	
6. Work-Study Program on Regenerative Agriculture for CARE-assisted Farmers in Mindoro, Philippines	5-9 April 1988	30	
7. Appreciation Course on Rural Reconstruction for Chinese Government Representatives	12-26 April 1988	16	
8. Orientation to Development and Project Management Skills for YMCA-Philippines	5-17 May 1988	30	
9. Training with Foster Parents Plan International on organizing, health and nutrition and sustainable agriculture	16-25 May 1988	15	Participants are Philippines-based field workers

T I T L E	D A T E	N O . O F P A R T I - C I P A N T S	R E L E V A N T N O T E S
II. Collaborative Trainings			
1. IIRR-RRFA Seminar- Workshop on Rege- nerative Agri- culture	1-8; 10-18 June 1987	34	This actually consisted of two separate work- shops in northern and central Thailand.
2. SARRA-IIRR-ANGOC Collaborative Regional Leadership Training	13-29 June 1987	14	IIRR's main support role falls in the area of capability building for training and monitoring, evaluation and document- ation of the training program
3. IIRR-CARE (Inter- national Workshop on Regenerative Agriculture	12-24 July 1987	20	
4. IIRR-GhRRM-Ghana Alumni Association Workshop on Sustainable Farming Systems	13-24 September 1987	17	This collaborative work- shop was meant to initiate GhRRM's revitalization. The workshop was adequately publicized over radio and in print through "West Africa", an inter- national news magazine
5. SARRA-IIRR-ANGOC Collaborative Regional Leader- ship Training	17-30 September 1987	14	

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T I T L E	D A T E	N O . O F P A R T I - C I P A N T S	R E L E V A N T N O T E S
6. YIS-BS-IIRR Col- laborative Training! for Middle Managers!	15-21 October 1987	38	
7. IIRR-GHRRM Training! for Farmers on Agroforestry	26 February - 5 March 1988	32	The participants to this training are expected to be the Demonstrator Farmers on the GhRRM
8. IIRR-ATC/PHC Training on the Agricultural Approach to Family Planning	18-22 April 1988	5	This training is part of a Hewlett-funded collaboration with ATC- PHC and other Third World agencies for capability building for and developing communi- cation materials on primary health care and family planning
9. SARRA-IIRR-ANGOC Regional Leadership! Training	5 May - 7 June 1988!	15	
SUMMARY: =====			
TOTAL NO. OF TRAININGS :	20		
TOTAL NO. OF PARTICIPANTS :	404		
NO. OF NEW COUNTRIES REPRESENTED :	2		
% OF AFRICANS VS. TOTAL NO. OF PARTICIPANTS :	24		
NO. OF ON-SITE REGIONAL TRAININGS :	3		
NO. OF NATIONAL TRAININGS :	7		
NO. OF TOPICAL TRAININGS :	19		
NO. OF TRAININGS WITH TRAINING ALUMNI :	6		(N.B. one request for training can cover 1-4 specific topics)

SAMPLE COURSE OUTLINES: IIRR'S NEW/REFINED
MODULES AND TOPICAL TRAININGS

MANAGING DEVELOPMENT ORGANIZATIONS*
(REFINED MODULE)

		Time
Day 1	Why Organizational Management	1 1/2 hours
	Organizational Life Cycle and Systems Analysis	3 hours
	Group Discussion	3 hours
Day 2	Organizational Management: What is it?	5 hours
	Leadership Theory and Framework	2 hours
Day 3	Leadership Theory and Framework (Cont'd//)	1 1/2 hours
	Managing Organizational Behaviour	5 1/2 hours
Day 4	Insights and Experiences: Leadership	1 1/2 hours
	Insights and Experiences: Staff Motivation and Development	2 hours
	Organizational Communication	3 1/2 hours
Day 5	Performance Management	1/2 hour
	Networking	3 1/2 hours
	Fund Raising	1/2 hour

*In the training program for staff of Sri Lanka Shramadana Movement, this was just a three day module. Scope by which topic is discussed depends on participants' needs.

TRAINING AS A STRATEGY FOR DEVELOPMENT*
(NEW/REFINED MODULE)

		<u>Time</u>
Day 1	Key Components of Training - Training Needs Analysis - Designing a Training Program	7 hours
Day 2	Adult Learning: Principle, Methods and Techniques	7 hours
Day 3	Training Methods and Techniques	7 hours
Day 4	- Continued -	7 hours
Day 5	Training Strategies for Building People's Capabilities in Project Planning, Implementation and Evaluation	7 hours
Day 6	Training Strategies for Group Building and Self-Reliance	7 hours
Day 7	Training Materials Development Paper-Based Training Materials	7 hours
Day 8	Workshop	7 hours
Day 9	Audio-Visual Materials Development	7 hours
Day 10	Workshop	7 hours

*This is the basic design for the module in training. This is expanded or trimmed down depending on the participants needs. More often focus is given to any of the following component: training program design, training methods, training materials development, and group building.

REGENERATIVE AGRICULTURE
(TOPICAL TRAINING)

		<u>Time</u> **
Day 1	Introduction to the Program	1 1/2 hour
	Levelling of Expectations	1 hour
	Understanding Rural Communities	3 1/2 hours
	Group Discussion	5 hours
	Group Reporting	1 1/2 hour
	Needs Assessment on Low-Cost Rice Production	1 1/2 hours
Day 2	Regenerative Agriculture: IIRR Experience	2 hours
	Group Discussion	2 1/2 hours
	Reporting	1 1/2 hours
	Alternative Solution to Rural Situation	2 hours
Day 3	<u>Village Exposure</u> Soil and Land Conservation	4 hours
	Agro Forestry: Alley Cropping	3 1/2 hours
	Sharing and Reflection	1 1/2 hour
Day 4	Field Practicum	1 1/2 hour
	Low-Cost Rice Production	3 1/2 hours
	Raising Fish in the Rice Field	3 1/2 hours
	Problem Assessment and Vegetables Survey	2 hours
Day 5	Field Practicum	1 hour
	Bio-Intensive Gardening	7 hours
Day 6	Field Practicum	1 hour
	Bio-Intensive Gardening	
	- Weed and Pest Control - Compost and Liquid Manure	7 hours

* Focus of the program depends on the needs of the participants which significantly varies depending on culture, geographical location, topography and agro climatic factors.

** Time depends on the level of understanding of the participants, scope of the topic or objectives set for each of the sessions.

Time

Day 7

Some Interesting Aspects in:

Agro Forestry

1 hour

Native Plants

1 hour

Some Interesting Aspect in Low-

Cost Rice Production

2 hours

Pesticides and Pest Control

3 1/2 hours

Issues on Pesticides and Pest Control

2 hours

Day 8

Program Review and Evaluation

3 1/2 hours

Future Planning

2 1/2 hours

GENDER DATA
1987 REGULAR TRAINING COURSES
(Incampus)

26th International Training	=	26 participants
		6 Female
		20 Male
27th International Training	=	15 participants
		4 Female
		11 Male

Country Represented:

○ Bangladesh	3
○ Australia	1
○ Ethiopia	1
○ Guatemala	1
○ Indonesia	1
○ India	6
○ Kenya	4
○ Maldives	1
○ Philippines	5
○ Pakistan	2
○ Sri Lanka	3
○ Thailand	7
○ Uganda	1
	<u>41</u>

CARE Training	=	23 participants
		4 Female
		19 Male

○ Bangladesh	3
○ India	2
○ Indonesia	2
○ Nepal	1
○ Philippines	5
○ Sri Lanka	2
○ Thailand	1
○ CARE (Asia)	3
○ CARE (Others)	4
	<u>23</u>

9/10

UPLB (Philippines) = 21 participants
6 Female
15 Male

COLLABORATIVE: (Off-Campus)

Ghana = 17 participants
4 Female
13 Male

Indonesia = 37 participants
10 Female
27 Male

Thailand = 34 participants
7 Female
13 Male

India (with SARRA)

6th RLIT (September 17-30, 1987) = 14 participants

● India	8
● Bangladesh	3
● Sri Lanka	1
● Pakistan	1
● Philippines	1
	<hr/>
	14

5th RLIT (June 18-30, 1987) = 14 participants

● Sri Lanka	4
● Bangladesh	3
● India	6
● Nepal	1
	<hr/>
	14

PRRM Workshop for Negros
Livelihood Assistance
Program (Philippines)
(December 1-17, 1987) = 15 participants
4 Female
11 Male

Note: IIRR has 62 technical staff: 35 male, 27 female and 49 support/
non-technical staff: 23 male, 26 female.

APPENDIX 6. SAMPLE COPIES OF IIRR PUBLICATIONS

- 6.1 IIRR Reports
- 6.2 IIRR News Briefs
- 6.3 International Sharing
- 6.4 Training Resource Book
- 6.5 Communicating Development
- 6.6 Rural Reconstruction Review

(ATTACHED SEPARATELY)

REGENERATIVE AGRICULTURE OUTREACH PROJECTS IN THE PHILIPPINES

The ultimate reason technologies are continuously developed and improved are the farmers: people who need information on alternative methods of farming to make a better living growing crops. Information generated from any research does nothing good unless it is disseminated. The easier it is to do, the more appropriate it is to farmers - majority of whom have no formal schooling.

In its effort to answer the need of a great number of farmers, IIRR has set-up several outreach sites in the Philippines. These sites provide a variety of conditions for technology testing and make technology demonstration possible to a wider audience. The IIRR's outreach efforts include:

1. Low-Input Rice Production Projects (LIRPP) target audience is the small farmers (with one hectare or less landholding) who has limited financial resources. This project has 3 outreach sites.
 - The Cavite site provides an irrigated lowland farming system. It is located in Navarro, a village in the heart of the rice growing section in the province of Cavite. The site demonstrates to the farmers options like the use of green manure - azolla and sesbania rostrata as source of nitrogen; fertilizer management - timing of fertilizer application given a limited amount; the use of hand-powered equipment such as weeder and seeder; rice-fish culture and bio-intensive gardening.
 - The Quirino site provides an example of rainfed lowland and upland agro-ecological system. It demonstrates a cropping pattern whereby the land is continuously utilized and regenerated thru crop recycling. Farm wastes like rice straw, legume residues are incorporated back to

the soil to provide nutrients and to improve the soil structure. The Quirino site also look at the integrated culture of freshwater fish, shrimp and clams and its effect to rice growth and development.

- The Negros Occidental site gives an example of rainfed upland farming system. It also looks at crop diversification and cropping patterns suited for upland ecosystem aside from testing other sources of organic fertilizer like crotonaria and other legumes.

The three sites were not established as a "model farm", but to offer a variety of technological options for people to choose from. Once good results are assured, the technologies are refined in coordinated on-farm trials involving farmer cooperators. To date, there are 16 farmer cooperators in Navarro using either azolla, sesbania rostrata, azospirilla, rotary weeder and fertilizer management techniques or a combination of two or more technologies in their farms.

Moreover, in February 1988, 13 Barangay Scholars (BS) from 9 people's organizations (POs) in Cavite had undergone training on lowland rice-based technology options. These BS are expected to demonstrate and disseminate the technologies appropriate in their respective POs, and a horizontal and vertical dissemination is expected to take place.

2. Soil and Water Conservation (Agro-Forestry)

The soil and water conservation includes options like contour farming for slopy land and alley cropping for flat uplands.

The contour farming promoted by IIRR has 3 main features: 1) the use of contour canal to conserve not only the top soil but the water as well; 2) the planting of grasses and leguminous trees as contour hedge-rows for livestock feeds and green manure; and 3) the rotation and diversification of main crops planted in between contour hedgerows.

Alley cropping on the other hand, is planting of main crop in between rows of leguminous trees just like in the contour farming, the rotation and diversification of main crop is also encouraged. Both options are developed in regenerating the soil through the incorporation of farm wastes like corn storer, leguminous plant residues and leguminous tree leaves.

The soil and water conservation project in Salvacion, Albay, Bicol gives a very good example of low contour farming works for upland areas. Initially, there were 5 farmer cooperators working together. Within the same year of introducing the technology, the 5 farmers increased to 19 and to date, there are 22 farmer cooperators. Their experience show an increase in their crop yields like from 9 to 18 cans of peanuts from the same area planted.

In Cavite, a farmer cooperator in Carmen, a village of Silang has also adapted the soil and water conservation technology and more farmers are signifying their interest.

3. Bio-intensive gardening

This method promotes the use of low-cost organic materials for fertilizer and pest control. The thrust is family nutrition. Village adaptors find that they can produce 13-25 pounds of different vegetables per week in family plots of only 200-300 square feet and potentially satisfy at least 30 of the protein requirement and 100 percent of the vitamin C and iron requirement of a typical village family.

BIG has spread nationwide thru the trainings conducted by IIRR for the Philippine Department of Agriculture, Philippine Department of Education, Culture and Sports and foreign and local NGOs like CARE Asia, CARE-Philippines and people's organization in the IIRR social laboratories. The largest group of adaptors however, are those in Negros where 19,000 Negrenses make use of the technology to produce their vegetable need.

UPDATE ON THE NATIONAL RURAL RECONSTRUCTION MOVEMENTS (NRRMs)

INDIAN RURAL RECONSTRUCTION MOVEMENT (IRRM)

The Indian Rural Reconstruction Movement or IRRM has actively been implementing the four-fold approach to rural reconstruction in its three social laboratories, namely, Vijalapuram (IRRM's initial area), Shantipuram and Pulicherla (the newest social laboratory), all located in Chitoor District in Andhra Pradesh State, South India. As a result, IRRM's direct intervention at present is in approximately 120 villages (18 panchayats). In addition, however, through its network of non-IRRM social laboratories started by former IRRM staff, an additional 365 villages mainly in Chitoor and the neighboring district are also being covered. The impact of IRRM's work, therefore, is currently being felt in a total of nearly 500 villages.

IRRM activities are characterized by the innovativeness of various approaches to rural reconstruction work. Aside from its Neighborhood Group Network (NGN) Strategy which IRRM has been implementing for the past two years, a grassroots based relatively unique "dairy chain" has been initiated. As a result, people's participation and control have greatly increased in the covered villages and a "people's parliament" has emerged at the Kuppam mandal level.

One of the most important contribution of IRRM's social laboratory networking strategy is that it has led to intensive networking at the Chitoor District level among indigenous NGOs of different approaches and ideologies. These spin-off groups have played a vital and decisive role in issue-based networking. Hopefully, the success of such an approach can serve as a model both for other districts in India and for other member country networks of the South Asia Rural Reconstruction Alumni (SARRA) which works closely with IRRM.

To further strengthen IRRM's capabilities in implementing its development work, IIRR's future program thrusts include the conduct of a collaborative regenerative agriculture workshops in August 1988. Already, biointensive gardens are in evidence in Vijalapuram. Para-legal training of grassroots workers to enable them to defend the rights of the landless workers, tenants and women is also being planned by IRRM with the help of other local groups in India.

THE GHANA RURAL RECONSTRUCTION MOVEMENT (GhRRM)

The operations of the Ghana Rural Reconstruction Movement had faced serious internal and external problems over the last few years. As part of its support strategy and as a contribution to the solution of these various problems, the IIRR has assisted in the approval of a three-year (1986-1989) grant from the PEW Foundation or the U.S.A. for a Collaborative Project on Agro-forestry and Regenerative Agriculture. Aside from the demonstration of technologies at the farmer-level, an emphasis on farmer-centered technology transfer strategies is to be a major component of the program. By the second year, it is hoped that the GhRRM will be ready to share its experiences with other organizations within Ghana. Within the third year, it is expected that what has been learned in the first and second year will be shared in other parts of West Africa.

As a preparatory activity to the implementation of the project, IIRR staff have been visiting the Movement and undertaking various activities. From September 13-24, 1987 the IIRR, in collaboration with the GhRRM and the Ghana Alumni conducted a workshop on Sustainable Farming Systems. The workshop was conducted to enhance the participants' understanding of the concept and rationale of sustainable farming systems; to allow them to acquire basic technical knowledge and skills on aspects related to sustainable farming systems, and to enable them to apply participative methods in planning, implementation and evaluation of programs/projects for sustainable farming systems.

The interest the workshop created resulted in strong enthusiasm from the participants to conduct various follow-up activities. In the first quarter of 1988, a staff of IIRR stayed with the GhRRM for three months as a technical resource person to help us the echo seminars being conducted by the participants after the September workshop. Training for thirty two Demonstration Farmers was conducted with the assistance of eight Farmer Scholars.

The participants to this training were very enthusiastic and supportive to the agro-forestry project. As outputs of this training, the participants prepared plans of action for implementation in their respective areas with the support and leadership of the Farmer Scholars.

The success of the abovementioned activities has further enhanced GhRRMs capabilities in the area of regenerative agriculture and strengthened people's awareness of their capability to continue rural reconstruction work in Ghana.

SOUTH ASIA RURAL RECONSTRUCTION ASSOCIATION (SARRA)

The South Asia Rural Reconstruction Association (SARRA) is a network of IIRR Alumni Associations from India, Nepal, Bangladesh, Sri Lanka and Pakistan, the latter becoming a former member only in October 1987. SARRA exists primarily to support the programs of genuine people's organizations and small indigenous NGOs working with the former in South Asia. Such support focuses on building the capability and self-reliance of such groups.

SARRA is currently pursuing a multi-pronged strategy to strengthen its capability and programs. This includes the extension of SARRA membership to non-IIRR and SARRA alumni in order to broaden both the association's base and commitment and representation in a wide variety of people's organizations and small indigenous NGOs. A three-pronged program thrust which emphasizes the areas of training, monitoring, evaluation and documentation, and regenerative agriculture capability building on its constituent people's organizations and small NGOs is being actively undertaken. In addition, a priority program area-identified was the building of an inventory of local resource centers in South Asia in each of the four-fold areas.

In support of SARRA's renewed thrust, membership networks in the South Asian member countries will be strengthened by giving them more autonomy in operations and supporting concrete programs. The focus is on building solid, grassroots intensive network in each member country instead of large structures at a national level. This move is being complemented by the strengthening of SARRA's regional secretariat both in terms of manpower and systems, mechanisms and procedures.

SARRA conducted two Regional Leadership Trainings and a Program Evaluation Workshop in January 1988 as part of the first year of the Learning Exchange Program supported by Private Agencies Collaborating Together (PACT). The trainings were aimed at enabling the design and implementation of simple, efficient and effective strategies for training rural reconstruction managers in specific skills.

RURAL RECONSTRUCTION ALUMNI AND FRIENDS ASSOCIATION (RRAFA)

On December 15, 1982, a group composed of Thai alumni of IIRR's International Training Courses and their friends who were involved in rural development work met at the Thailand Rural Reconstruction Movement's Center in Chainat province to form the Rural Reconstruction Alumni and Friends Association or RRAFA.

Since the establishment of RRAFA in December 1982, the Association has emerged as a credible resource in Thailand for training and leadership capability building at the community level. Its participatory methodology has also been noted as a major innovation in rural development training in Thailand.

The 1987 activities of RRAFA reflect the progress it has made in its three major program areas, namely, community training for grassroots, indigenous NGOs and leaders, participatory project evaluation and action research. RRAFA and IIRR undertook collaboratively two workshops (one each in northern and central Thailand) on regenerative agriculture in mid-1987. The regenerative agriculture workshops concentrated on sharing with the participants low-cost, ecologically sound, sustainable and culturally compatible agricultural systems. RRAFA has also continued to play a key role in a three-year program of monitoring and evaluating small NGOs being funded by the Canadian International Development Agency - Local Development Assistance Program (CIDA-LDAP) in Thailand. RRAFA has also continued its action research activities on critical issues facing the Thai rural sector with special focus on rural indebtedness. The methodology employed entails thorough research and documentation of both micro and macro causes of the problems of the Thai farmers.

RRAFA is also currently in the process of establishing an information and data bank on Thai rural problems which can be used as a resource library both by Thai farmers and small, indigenous NGOs. It has acquired a new office in central Bangkok and its sources of funding are in the process of stabilizing.

PHILIPPINE RURAL RECONSTRUCTION MOVEMENT (PRRM)

Strong support by both local and foreign organizations has greatly contributed to the rejuvenation of PRRM. The Movement is currently undertaking four development field projects, namely, the Rural Development and Democratization Program (RDDP); the Negros Livelihood Assistance Program (NLAP); the Food and Nutrition Policy Program (FNPP) for Negros; and the Sponsor a Small Farmer Program.

The RDDP is guided by the principles of rural reconstruction and thus integrates the four-fold concerns of health, education, livelihood and self-government into the program. Aside from hastening and systematizing the process of empowering the poorest sector of rural Philippine society, the RDDP likewise seeks to build and strengthen centers of rural people's autonomy through the establishment and consolidation of self-reliant and self-sustaining rural institutions.

In the past two years, the PRRM has implemented a Food Aid Program in the Philippine Island province of Negros Occidental. The Food Aid program aimed to provide emergency food relief to workers affected by the collapse of the local sugar industry. Upon the completion of the program, follow-up activities were conceived. One such activity is the implementation of the one-year Negros Livelihood Assistance Program or NLAP. The NLAP aims to help selected farmer and farm worker communities who were very dependent on the collapsed sugar industry develop alternative livelihood sources. Major features of the program are the financing of livelihood projects, technical assistance and community technicians training.

The Food and Nutrition Policy Program (FNPP) for Negros is a complement program to food aid livelihood projects of PRRM. While the FNPP addresses the immediate problems of malnutrition, it also trains the community to overcome food and nutrition problems in the process. Eventually, the program hopes to provide a set of policy recommendations on food and nutrition.

The Sponsor a Small Farmer Program is geared towards the transfer of technology to small farmer beneficiaries. Initial activities have already benefited 41 small farmer beneficiaries from villages of two towns in Central Luzon.

PRRM has also actively undertaken policy studies and advocacy as a response to the growing need of their partner NGOs and people's organizations. The main objectives are not only clearer policy guidelines and directions on various issues but more importantly, an attempt to influence national and international policy in favor of the poor. This concern is indicated through PRRM's significant involvement with the Philippine Congress for a People's Agrarian Reform; its co-sponsoring of a Positive Development Program Conference with an Australian NGO which highlighted the need to set long-term goals and strategies for foreign-funded development programs; participation in an Alternative Philippine Debt and Development Strategies Conference in the U.K. which focused on various development issues plaguing the Philippines; and its involvement in the Freedom from Debt Coalition which envisions an advocacy role on alternative strategies on the Philippine debt issue.

The PRRM is also further strengthening its internal membership and external networks. Three provincial chapters were established in 1987 while it has become a member of two major national networks of NGOs, the National Council for People's Development, a mass-based NGO offering alternative economic development programs, and the Congress for a People's Agrarian Reform, an aggrupation of NGOs and people's organizations committed to the implementation of a comprehensive agrarian reform in the Philippines.

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FOUDATION FOR THAILAND RURAL RECONSTRUCTION MOVEMENT (TRRM)

As a major activity the TRRM is currently undertaking a project entitled "Marketing and Management Development for Villagers", a project proposal of which has been prepared for possible funding by donor institutions. Through this project, TRRM intends to provide marketing and management skills to informal and formal organizations of villagers already engaged in activities such as handicrafts, cottage industries and agriculture related, income-producing occupations.

The emphasis will first be on informal groups and later on formal, economically-oriented rural organizations (e.g. agricultural cooperatives, officially registered savings cooperatives) in the Province of Chainat (Central Thailand) and the surrounding areas. Self-help settlements, administered by the Thai Government's Public Welfare Department will be the next target group. Later, if this project is successful, TRRM plans to expand nationwide.

Five villages are targetted in the first year (1988) with an increase of 5 villages in each succeeding year. TRRM's emphasis will be on providing services such as counselling and consulting, training and development, promotion and education to village groups engaged in livelihood projects. They plan to work in close consultation with Thai government agencies.

Three village groups in Chainat have already been selected in close consultation with the Provincial authorities. They have a tooth-pick producing group, a dairy farming group and a water hyacinth handicraft group, respectively.

TRRM is also undertaking income-generating activities to augment the income of its organization. It currently has an experiment and demonstration farm for fish, rice, fruit, vegetable and livestock at its Chainat Center.

THE MOVIMIENTO GUATEMALTECO DE RECONSTRUCCION RURAL

Activities are going full steam in the two social laboratories of the MGRR located in Jalapa and Livingston. The activities in these two areas emphasize the four-fold approach to rural reconstruction, i.e. health, education, livelihood and self-government.

Aside from the abovementioned programs, preparations for the establishment of a regenerative agriculture program in Guatemala are underway. The program, entitled "An International Regenerative Agriculture Training Program for Guatemala", is funded by an initial one-year grant from the General Service Foundation, USA and will be undertaken by MGRR in collaboration with the IIRR.

The possibility of undertaking such a collaborative project between the two organizations was first explored as early as 1986. Since one area of common interest between IIRR and MGRR is regenerative agriculture, IIRR, in fact, emphasizes the development, testing and cross-cultural adaptation of inexpensive, ecologically sound techniques for greater food production for family consumption and income generation.

Preliminary data on the climate, soil composition and topography of the Jalapa social laboratory have been gathered in IIRR's International Network Data Bank. A further inventory on traditional agriculture practices and technologies currently in use is, however, still needed. IIRR is planning to send a staff to Guatemala in 1988 for this purpose and in order to undertake the necessary groundwork with MGRR for the preparation of a more detailed strategy.

It is hoped that MGRR will soon have identified a technical person who will work closely with the visiting IIRR staff. At a later date, the MGRR staff may have a 4 to 6 week stay at IIRR in the Philippines to further concretize the implementation strategy and learn more about IIRR's regenerative agriculture experiences.

All the preparatory activity should result in a 2 week training seminar on regenerative agriculture in the first quarter of 1989. Around 20 to 30 participants from local Guatemalan development organizations and representatives from other countries (especially in the Central American region) are expected to attend. It is thus hoped that the greater awareness and knowledge of skills in regenerative agriculture would influence development organizations not only in Guatemala but in the entire Latin American region. IIRR's affiliated national movement in Colombia is expected to actively participate in this workshop and regional strategy.

This collaborative program not only hopes to introduce MGRR as a prime-mover in the area of regenerative agriculture in the region but should also strengthen institutional links between IIRR and MGRR. The program will also hopefully open the door for further substantive program cooperation between the two organizations in the future.

MOVIMIENTO COLOMBIANO DE RECONSTRUCCION RURAL (MCRR)

1987 marked the second phase of MCRR's rural reconstruction activities in the field of education. As an on-going program of the Movement since 1984, the various projects under the education program are being carried out in collaboration with the Universidad Pedagogia Nacional. Four major projects are currently being implemented. These hope to:

- o answer the need to investigate the various forms and processes of communication prevailing at the village level;
- o generate strategies, and procedures for the organization and orientation of rural youth on their capabilities not only as individual, but in relation to economic activities at the village level; conduct research on new dimensions on the role women play and how they are perceived at the family and community level; and
- o identify the various types of community consciousness pervading in the community.

Findings from the various projects are expected to contribute to the understanding and improvement of social relationships at the family and community levels and will be utilized as inputs to the development of a relevant school curriculum for the rural areas.

Another project is being undertaken by the MCRR in collaboration with the Universidad Jorge Tadeo Lozano de Bogota. The project is a study to revitalize and maximize the use of traditional farming methods in the rural areas. The project aims to achieve diversification and sustained growth of agricultural products and, parallel to this objective, hopes that a corresponding increase in the productive use of surplus provisions for family consumption will eventually lead to a rise in the social well-being of rural families.

The abovementioned field projects of MCRP are located in their social Laboratory in Rio Blanco and Choachi, Department of Cundinamarca. The former has a total population of 6,500 and the latter, a population of 20,000. The projects in both areas directly affect 4,500 individuals and indirectly affect 2,000 others.

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APPENDICES

9. Regenerative Agriculture Publications
10. CARE Training Report
11. 1987 IIRR Annual Report
12. 1987 IIRR Certified Annual Audit

(ATTACHED SEPARATELY)

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INTERNATIONAL INSTITUTE OF RURAL RECONSTRUCTIONOTR-0286-A-00-7132-(A-1)FINANCIAL PROFILE OF THE PROJECT

	Projected Expenditures	Budget	Budget	Budget	Total Budget	Total Projected
	7/1/87 - 6/30/88	7/1/87 - 6/30/88	7/1/88 - 6/30/89	7/1/89 - 6/30/90	7/1/87 - 6/30/90	7/1/87 - 6/30/90
<u>PROJECT EXPENDITURES:</u>						
International Training	\$ 513,172	\$ 498,800	\$ 557,921	\$ 585,815	\$1,642,536	\$1,656,908
International Extension	<u>374,325</u>	<u>354,150</u>	<u>418,543</u>	<u>457,520</u>	<u>1,230,213</u>	<u>1,250,388</u>
Total Direct Costs	887,497	852,950	976,464	1,043,335	2,872,749	2,907,296
Indirect Costs	<u>227,198</u>	<u>218,350</u>	<u>249,973</u>	<u>259,415</u>	<u>727,738</u>	<u>736,586</u>
TOTAL MG PROGRAM	<u>\$1,114,695</u>	<u>\$1,071,300</u>	<u>\$1,226,437</u>	<u>\$1,302,750</u>	<u>\$3,600,487</u>	<u>\$3,643,882</u>
<u>SOURCE OF FUNDS:</u>						
A.I.D. Matching Grant	\$ 450,000	\$ 450,000	\$ 600,000	\$ 630,000	\$1,680,000	\$1,680,000
Private cash*	<u>664,695</u>	<u>621,300</u>	<u>626,437</u>	<u>672,750</u>	<u>1,920,487</u>	<u>1,963,882</u>
TOTAL REVENUE MG PROGRAM	<u>\$1,114,695</u>	<u>\$1,071,300</u>	<u>\$1,226,437</u>	<u>\$1,302,750</u>	<u>\$3,600,487</u>	<u>\$3,643,882</u>

*Private cash includes private contributions, grants from foundations and corporations, income earned on investments and fees for services.

INTERNATIONAL INSTITUTE OF RURAL RECONSTRUCTION

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TOTAL FOR PERIOD JULY 1, 1987 - JUNE 30, 1990

FINANCIAL PROFILE OF THE PROJECT - SUMMARY

A. BUDGET VERSUS ACTUAL EXPENDITURES

<u>Project Elements:</u>	<u>A.I.D.</u>		<u>P.V.O.</u>		<u>TOTAL</u>	
	<u>BUDGET</u>	<u>PROJECTED</u>	<u>BUDGET</u>	<u>PROJECTED</u>	<u>BUDGET</u>	<u>PROJECTED</u>
International Training:						
Staff personnel costs	\$ 272,606	\$ 293,715	\$ 620,238	\$ 568,003	\$ 892,844	\$ 861,718
Travel	43,960	37,933	102,553	105,070	146,513	143,003
Training Costs	173,750	161,839	134,105	165,997	307,855	327,836
Other Direct Costs	<u>82,268</u>	<u>78,891</u>	<u>213,056</u>	<u>245,460</u>	<u>295,324</u>	<u>324,351</u>
Total International Training	<u>\$ 572,584</u>	<u>\$ 572,378</u>	<u>\$1,069,952</u>	<u>\$1,084,530</u>	<u>\$1,642,536</u>	<u>\$1,656,908</u>
International Extension:						
Staff personnel cost	\$ 313,259	\$ 334,672	\$ 287,912	\$ 247,850	\$ 601,171	\$ 582,522
Travel	150,452	132,588	51,594	64,852	202,046	197,440
Fellowships	138,860	137,935	-	-	138,860	137,935
Financial Assistance to Affiliates	60,000	60,000	30,000	65,000	90,000	125,000
Other Direct Costs	<u>108,543</u>	<u>106,125</u>	<u>89,593</u>	<u>101,366</u>	<u>198,136</u>	<u>207,491</u>
Total International Extension	<u>\$ 771,114</u>	<u>\$ 771,320</u>	<u>\$ 459,099</u>	<u>\$ 479,068</u>	<u>\$1,230,213</u>	<u>\$1,250,388</u>
Indirect Costs	<u>\$ 336,302</u>	<u>\$ 336,302</u>	<u>\$ 391,436</u>	<u>\$ 400,284</u>	<u>\$ 727,738</u>	<u>\$ 736,586</u>
TOTAL MG PROGRAM	<u>\$1,680,000</u>	<u>\$1,680,000</u>	<u>\$1,920,487</u>	<u>\$1,963,882</u>	<u>\$3,600,487</u>	<u>\$3,643,882</u>
<u>SOURCE OF FUNDS:</u>						
A.I.D. Matching Grant	\$1,680,000	\$1,680,000			\$1,680,000	\$1,680,000
Private cash*			<u>\$1,920,487</u>	<u>\$1,963,882</u>	<u>1,920,487</u>	<u>1,963,882</u>
TOTAL REVENUE MG PROGRAM	<u>\$1,680,000</u>	<u>\$1,680,000</u>	<u>\$1,920,487</u>	<u>\$1,963,882</u>	<u>\$3,600,487</u>	<u>\$3,643,882</u>

*Private cash includes private contributions, grants from foundations and corporations, income earned on investments and fees for services.

INTERNATIONAL INSTITUTE OF RURAL RECONSTRUCTION

OTR-0286-A-00-7132-(A-1)

TOTAL FOR PERIOD JULY 1, 1987 - JUNE 30, 1988

FINANCIAL PROFILE OF THE PROJECT - YEAR 1

A. BUDGET VERSUS ACTUAL EXPENDITURES

<u>Project Elements:</u>	<u>A. I. D.</u>		<u>P. V. O.</u>		<u>TOTAL</u>	
	<u>BUDGET</u>	<u>EXPENDED</u>	<u>BUDGET</u>	<u>EXPENDED</u>	<u>BUDGET</u>	<u>EXPENDED</u>
International Training:						
Staff personnel costs	\$ 81,500	\$102,609	\$201,460	\$149,225	\$ 282,960	\$ 251,834
Travel	15,860	9,833	34,300	36,817	50,160	46,650
Training Costs	33,750	21,839	45,120	77,012	78,870	98,851
Other Direct Costs	<u>22,950</u>	<u>19,573</u>	<u>63,860</u>	<u>96,264</u>	<u>86,810</u>	<u>115,837</u>
Total International Training	<u>\$154,060</u>	<u>\$153,854</u>	<u>\$344,740</u>	<u>\$359,318</u>	<u>\$ 498,800</u>	<u>\$ 513,172</u>
International Extension:						
Staff personnel cost	\$ 89,656	\$111,069	\$ 97,190	\$ 57,128	\$ 186,846	\$ 168,197
Travel	47,044	29,180	17,330	30,588	64,374	59,768
Fellowships	45,530	44,605	-	-	45,530	44,605
Financial Assistance to Affiliates	-	-	10,000	45,000	10,000	45,000
Other Direct Costs	<u>21,990</u>	<u>19,572</u>	<u>25,410</u>	<u>37,183</u>	<u>47,400</u>	<u>56,755</u>
Total International Extension	<u>\$204,220</u>	<u>\$204,426</u>	<u>\$149,930</u>	<u>\$169,899</u>	<u>\$ 354,150</u>	<u>\$ 374,325</u>
Indirect Costs	<u>\$ 91,720</u>	<u>\$ 91,720</u>	<u>\$126,630</u>	<u>\$135,478</u>	<u>\$ 218,350</u>	<u>\$ 227,198</u>
TOTAL MG PROGRAM	<u>\$450,000</u>	<u>\$450,000</u>	<u>\$621,300</u>	<u>\$664,695</u>	<u>\$1,071,300</u>	<u>\$1,114,695</u>
<u>SOURCE OF FUNDS:</u>						
A.I.D. Matching Grant	\$450,000	\$450,000			\$ 450,000	\$ 450,000
Private cash*			\$621,300	\$664,695	621,300	664,695
TOTAL REVENUE MG PROGRAM	<u>\$450,000</u>	<u>\$450,000</u>	<u>\$621,300</u>	<u>\$664,695</u>	<u>\$1,071,300</u>	<u>\$1,114,695</u>

*Private cash includes private contributions, grants from foundations and corporations, income earned on investments and fees for services.

INTERNATIONAL INSTITUTE OF RURAL RECONSTRUCTION

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TOTAL FOR PERIOD JULY 1, 1988 - JUNE 30, 1989

FINANCIAL PROFILE OF THE PROJECT - YEAR 2

A. BUDGETED EXPENDITURES

	<u>A.I.D.</u>	<u>P.V.O.</u>	<u>TOTAL</u>
<u>Project Elements:</u>			
International Training:			
Staff personnel costs	\$ 95,553	\$201,951	\$ 297,504
Travel	14,050	32,953	47,003
Training Costs	70,000	41,700	111,700
Other Direct Costs	<u>29,659</u>	<u>72,055</u>	<u>101,714</u>
Total International Training	<u>\$209,262</u>	<u>\$348,659</u>	<u>\$ 557,921</u>
International Extension:			
Staff personnel cost	\$106,749	\$ 95,361	\$ 202,110
Travel	54,875	17,132	72,007
Fellowships	45,530	-	45,530
Financial Assistance to Affiliates	30,000	10,000	40,000
Other Direct Costs	<u>31,293</u>	<u>27,603</u>	<u>58,896</u>
Total International Extension	<u>\$268,447</u>	<u>\$150,096</u>	<u>\$ 418,543</u>
Indirect Costs	<u>\$122,291</u>	<u>\$127,682</u>	<u>\$ 249,973</u>
TOTAL MG PROGRAM	<u>\$600,000</u>	<u>\$626,437</u>	<u>\$1,226,437</u>
<u>SOURCE OF FUNDS:</u>			
A.I.D. Matching Grant	\$600,000		\$ 600,000
Private cash*	<u> </u>	<u>\$626,437</u>	<u>626,437</u>
TOTAL REVENUE MG PROGRAM	<u>\$600,000</u>	<u>\$626,437</u>	<u>\$1,226,437</u>

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*Private cash includes private contributions, grants from foundations and corporations, income earned on investments and fees for services.

INTERNATIONAL INSTITUTE OF RURAL RECONSTRUCTION

OTR-0286-A-00-7132-(A-1)

TOTAL FOR PERIOD JULY 1, 1989 - JUNE 30, 1990

FINANCIAL PROFILE OF THE PROJECT - YEAR 3

A. BUDGETED EXPENDITURES

	<u>A.I.D.</u>	<u>P.V.O.</u>	<u>TOTAL</u>
<u>Project Elements:</u>			
International Training:			
Staff personnel costs	\$ 95,553	\$216,827	\$ 312,380
Travel	14,050	35,300	49,350
Training Costs	70,000	47,285	117,285
Other Direct Costs	<u>29,659</u>	<u>77,141</u>	<u>106,800</u>
Total International Training	<u>\$209,262</u>	<u>\$376,553</u>	<u>\$ 585,815</u>
International Extension:			
Staff personnel cost	\$116,854	\$ 95,361	\$ 212,215
Travel	48,533	17,132	65,665
Fellowships	47,800	-	47,800
Financial Assistance to Affiliates	30,000	10,000	40,000
Other Direct Costs	<u>55,260</u>	<u>36,580</u>	<u>91,840</u>
Total International Extension	<u>\$298,447</u>	<u>\$159,073</u>	<u>\$ 457,520</u>
Indirect Costs	<u>\$122,291</u>	<u>\$137,124</u>	<u>\$ 259,415</u>
TOTAL MG PROGRAM	<u>\$630,000</u>	<u>\$672,750</u>	<u>\$1,302,750</u>
<u>SOURCE OF FUNDS:</u>			
A.I.D. Matching Grant	\$630,000		\$ 630,000
Private cash*	<u> </u>	<u>\$672,750</u>	<u>672,750</u>
TOTAL REVENUE MG PROGRAM	<u>\$630,000</u>	<u>\$672,750</u>	<u>\$1,302,750</u>

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*Private cash includes private contributions, grants from foundations and corporations, income earned on investments and fees for services.

INTERNATIONAL INSTITUTE OF RURAL RECONSTRUCTION
Silang, Cavite

**National Nutrition Council
Department of Agriculture
PROVINCIAL TRAINORS' TRAINING
ON FAMILY FOOD GARDENS
January 6-9, 1988**

<u>Day/Time</u>	<u>Activities</u>	<u>In-charge</u>
<u>Day 1 - Wednesday, Jan. 6</u>		
8:00- 9:00 a.m.	Opening Ceremony Introductions Welcome Remarks	Ms. Sylvia Fulgencio/ Mr. Danny Agcopra Dr. Juan M. Flavier
9:00-10:00	Orientation to Training o Participants' Expectations o Training Content o Methodologies o Expected Output	Mr. Danny Agcopra Mr. Lori Arizala
10:00-10:30	B R E A K	
10:30-10:45	Slides Presentation: IIRR	Ms. Ivy Domingo
10:45-12:00 noon	Situationer (Workshop): Family Food Security	Mr. Lori Arizala/ Dr. Trell Gonzaga
12:00- 1:30 p.m.	L U N C H B R E A K	
1:30- 3:00	Plenary	
3:00- 3:30	B R E A K	
3:30- 5:00	The Case For A Sustainable Family Food Security Soundslides: o Towards A More Sustainable Agriculture Part I o Technological Profile: BIG	Dr. Julian Gonsalves
5:00- 7:30	D I N N E R	
7:30- 8:00	Video Presentation: LIVING SOIL	Dr. Julian Gonsalves/ Ms. Ivy Domingo

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<u>Day/Time</u>	<u>Activities</u>	<u>In-charge</u>
<u>Day 2 - Thursday, Jan. 7</u>		
5:30- 7:00 a.m.	Field Practicum: BIG Bed Preparation	Mr. Lori Arizala
7:00- 8:00	B R E A K F A S T	
8:00-10:00	Discussion: <ul style="list-style-type: none"> o Bed Preparation o Fertilization/Nutrient Conservation 	Dr. Julian Gonsalves/ Mr. Lori Arizala
10:00-10:30	B R E A K	
10:30-12:00 noon	Discussion: <ul style="list-style-type: none"> o Crop Planning o Bed Care and Management: <ul style="list-style-type: none"> - Watering Techniques - Water Conservation - Pest Control 	Dr. Julian Gonsalves/ Mr. Lori Arizala
12:00- 1:30 p.m.	L U N C H B R E A K	
1:30- 3:00	Nutrition Considerations	Dr. Trell Gonzaga
3:00- 3:30	B R E A K	
3:30- 5:00	Study Tour: Market Gardening	Ms. Tessie Cantada/ Mr. Lori Arizala
5:00- 7:30	D I N N E R	
7:30- 9:00	Video Presentation: BIOLOGICAL PEST CONTROL	Dr. Julian Gonsalves/ Ms. Ivy Domingo

<u>Day/Time</u>	<u>Activities</u>	<u>In-charge</u>
<u>Day 3 - Friday, Jan. 8</u>		
5:30- 7:00 a.m.	Field Practicum: <ul style="list-style-type: none"> o Finalize Bed Preparation o Bed Fertilization 	Mr. Lori Arizala
7:00- 8:00	B R E A K F A S T	
8:00-10:00	Principles of Technology Transfer	Dr. Erasmus Monu
10:00-10:30	B R E A K	
10:30-12:00 noon	Technology Transfer Mechanism in FFG - Negros Project	Mr. Ed Macapal
12:00- 1:30 p.m.	L U N C H B R E A K	
1:30- 3:00	Farmer Centered Approaches To Technology Transfer: The Case of Salvacion	Mr. Lito Pastores
3:00- 3:30	B R E A K	
3:30- 4:30	Mini-Pond Technologies for Improved Family Nutrition	Mr. Frank Fermin
4:30- 5:00	Guidelines for Implementation of BIG	Dr. Julian Gonsalves
5:00- 7:30	D I N N E R	
7:30- 9:00	Socials	Mr. Lori Arizala

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<u>Day/Time</u>	<u>Activities</u>	<u>In-charge</u>
<u>Day 4 - Saturday, Jan. 9</u>		
5:30- 7:00 a.m.	Field Practicum <ul style="list-style-type: none"> • Demonstration - Liquid Fertilizer Preparation • Transplanting • Tour: In-Campus Demo Projects 	Dr. Julian Gonsalves/ Mr. Lori Arizala
7:00- 8:00	B R E A K F A S T	
8:00-12:00 noon	Study Tour: Navarro, Gen. Trias, LIRPP	Mr. Eboy Imperial
12:00- 1:30 p.m.	L U N C H B R E A K	
1:30- 2:00	General Discussions	Dr. Julian Gonsalves
3:00 p.m.	Departure for Bacolod	
<u>Day 5 - Sunday, Jan. 10</u>		
	Negros Field Exposure	Dept. of Agriculture
<u>Day 6 - Monday, Jan. 11</u>		
	Negros Field Exposure <ul style="list-style-type: none"> • Discussion on Implementation Issues • Evaluation of Workshop 	Dept. of Agriculture Mr. Jun Imperial
	Return: 8 pm (Bulilit)	

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INTERNATIONAL INSTITUTE OF RURAL RECONSTRUCTION
Silang, Cavite, Philippines

National Nutrition Council
Department of Agriculture
PROVINCIAL TRAINORS' TRAINING ON FAMILY FOOD GARDENS
January 6-9, 1988

SUMMATIVE EVALUATION RESULTS

Out of 37 participants, 36 submitted their accomplished summative evaluation questionnaires.

The following were answered by encircling the appropriate rating and giving remarks or suggestions on the space provided. The rating is on the scale of 1 to 5, 1 being the lowest and 5, the highest.

	<u>MEAN</u>
1. DESIGN	
1.1 To what extent was the course relevant to your needs/expectations?	4.72
1.2 To what extent have your course needs/expectations been satisfied?	4.47
2. OBJECTIVES	
2.1 To what extent have each of these objectives been achieved	4.46
2.1.1 To understand the underlying principles and purpose of regenerative agricultural technologies such as BIG;	4.63
2.1.2 To implement family food garden program using the BIG technological package;	4.63
2.1.3 To appreciate the importance of nutrition oriented food production programs.	4.54

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3. . CONTENT

3.1 The following were rated the five best topics, 1 is the first best and 5 the fifth best.

ENRICHED KNOWLEDGE

1. Bio-Intensive Gardening
2. Nutrition Concerns
3. Situationer: Family Food security
4. Principles of Technology Transfer
5. The Case for a Sustainable Family Food Security

ENHANCED ATTITUDE

1. Nutrition Concerns
2. Farmer Center Approaches to Technology Transfer
3. Bio-Intensive Gardening
4. Principles of Technology Transfer
5. Situationer: Family Food Security

LEARNING SKILLS

1. Bio-Intensive Gardening
2. Principles of Technology Transfer
3. Nutrition Concerns
4. Situationer: Family Food Security
5. The Case for a Sustainable Family Food Security

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Please give your reasons for ranking the first best.

3.1.1 enriched knowledge

- gives us modern innovation on technology necessary for family food gardening - 5
- increased knowledge through what is seen - 2
- because one can do it - 2
- answers farmers' home and cash needs
- very practical/applicable - 4
- explains the right method in approaching farmers producing nutritious crops at very low inputs

3.1.2 enhanced attitude

- changes farmers attitude (from fair to best)/over-dependence on other people - 6
- interest grows as you do it - 2
- techniques in convincing the farmer - 2
- family is provided nutritious vegetables and a means to augment family income.
- BIG be a habit in daily living
- change people's attitude by planting for family food consumption instead of buying from markets.

3.1.3 learning skills

- learning by experience - 4
- skill and techniques in gardening - 5
- farm families encouraged to use available local compost for fertilizer and intensified crop used on a small land area
- technical knowledge on some aspects of the subject covered.

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	<u>MEAN</u>
3.2 How would you describe the content of the sessions?	4.75
3.3 Your impression on the amount of information absorbed in the given time.	3.83
3.4 Your impression on the complexity of the content	3.63
3.5 How would you describe acquisition of new information and ideas?	4.42
3.6 Which sessions should have been reduced, omitted or improved? Were there other topics which should be added to the program?	

3.6.1 Should have been reduced

Reasons

- No. of hours on classroom lecture - 5
- Field exposure (Negros) - 4
 - too expensive - 3
 - it's good but too much, one to three BIG project samples are good enough
- Session about Bicol
 - takes years before it happens again
- Technology transfer mechanism - 2
- The case of a Sustainable Family Food Security - 2

3.6.2 Should have been omitted

- Mini-Pond
 - impractical and unsanitary
- Fertilizer Preparation
 - Need for further details
- Planting Herbs as insecticides
 - during field visit at Silay, it is observed that eggplants are damaged by worms.

3.6.3 Should be improved

- Rice experiment - 2
- Demonstration Farm
- Field Practicum -- should also be done in difficult slopes

3.6.4 Should be added

- Livestock raising -- most farmers depend on them
- Minimal use of insecticides
- Herbal plants - 2 -- barangay lack medicines and immediate access to hospitals
- Cooking demonstration process where nutrients is lost -- to learn the technique
- Multiple cropping - 5
- Topics on food and nutrition -- because malnutrition affects the country's economic conditions
- Topics on small farmers development
- acquiring relief from UNICEF -- tools for land preparation is necessary during project implementation, maybe UNICEF can help.

3.7 Three topics which provided significant learning. (Listed in order of priority where first is their top priority.)

1. Bio-Intensive Gardening
2. Family Food Security
3. Nutrition Considerations

4. TRAINING METHODS

4.1 To what extent were you involved during the session 3.90

4.2 How do you describe the appropriateness of the methods used? 4.39

- clear simple and very interesting - 4
- very reliable and practical - 4
- method is new, lectures and slides are based on actual field research results - 3
- a good combination of both theoretical and practical - 3
- relevant visual aids, actual field activities and visits to successful BIG projects - 5
- speaker expertise has lots to do with it
- practical and easy to understand except on the reliability of things and materials used
- actual demo is very effective
- theories and practicum are relevant
- involves more senses
- lectures were supplemented by AV, practicum and field trips
- best training I have attended: topics are informative and we learn from actual experience
- quite appropriate but I don't know the next topic to be discussed by the speaker, I was tensed and twisted ideas to where it was

4.3 What method did you find .

4.3.1 Most effective?

Reason

- | | |
|---|--|
| -- Field practicum/
actual demo - 14 | -- application and everybody
participates |
| -- Lecturette, Practicum
and farm visits - 7 | -- learning by doing |
| -- approach of extension
methodology has been
added | |

5.2.3	Sequencing of topics	4.34
5.2.4	Time allocation for sessions	3.57
5.2.5	Evaluation methods	4.40
5.3	Course implementation	
5.3.1	Promptness of beginnings and endings	4.18
5.3.2	Flexibility of program	4.41
5.3.3	Session Facilitation	
	Please rate how the following facilitated his particular session:	
	Lori Arizala	4.76
	Frank Fermin	4.19
	Trelle Gonzaga	4.84
	Julian Gonsalves	4.97
	Ed Macapal	4.47
	Erasmus Monu	4.56
	Lito Pastores	4.32
5.4	Logistics	
5.4.1	Canteen services	4.60
5.4.2	Dormitory services	4.89
5.4.3	Training facilities	4.89
5.4.4	Travel arrangements	4.50

Comments:

- training duration is too short - 3
- very good dorm services at IIRR but very poor toilet facilities in Bacolod - 2
- participants were not informed ahead of time that fare can be reimbursed which resulted to poor attendance during the first two days.

- fieldtrips, too tiresome
- arrange and improve reservations of participants
- very satisfactory
- place someone in the canteen who can really be depended upon like if they are suppose to wake up at 5:00 a.m. they have to rather than waking at 5:38 a.m.

5.5 Training materials

5.5.1 Amount 4.68

5.5.2 Utilization 3.97

5.5.3 Suggestions to:

a. Improve training materials

- at least each group be given copy of what was shown in slides or tape
- consecutively arranged
- make it bounded - 3
- well prepared
- very good

b. Maximize utilization of handouts

- must be numbered for easy identification and retrieval

6. INTERPERSONAL RELATIONSHIPS

6.1 Among the participants during sessions 4.53

6.2 Among the participants during leisure hours 4.15

Suggestions for improvement:

- introduction of participants to one another (name, tribe, office, etc.) - 6
- sports materials must be provided - 2

- there should be acquaintance and participants sharing - 2
- showing good movies to interested parties
- proper selection of participants
- must have good attitude to each other
- sticking to a group must be discouraged
- participants must be sharing ideas not competing with each other
- all provinces in the Philippines must be represented

6.3 With the facilitators 4.42

Suggestions for improvement:

- closer communication to those concerned to attain 100% attendance of participants
- facilitators from time to time must ask problems of participants
- have more patience - 2
- have done all their best to please participants
- subject matter specialist
- be flexible
- must participate in socials of the training - 2
- okay

7. EVALUATION

7.1 Coverage 4.43

7.2 Methods 4.38

Suggestions to improve the evaluation process:

- personally visit place of implementation - 4
- training management should guide participants in filling up the form - 3
- must be given due time - 2

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8. OTHERS

8.1 Follow-up activities

What follow-up activities would you recommend that IIRR/DA undertake with you after this training?

- visits and evaluation - 5
- provide copies of new research findings and approaches from IIRR - 5
- follow-up training after a year - 3
- project implementation be closely supervised - 2
- retraining of participants when projects are not implemented - 2
- implement BIG in areas of participants who attended training
- evaluate impact of programs
- constant consultation and interviews
- more guidance
- specialist must assist
- monitor, evaluation and recommend alternative solutions to problems in the field and train us further in relevant programs such as this
- Coordinate with PAO in the provinces and prioritize program by giving support in terms of materials, etc.
- follow-up activities according to action plan made by participants
- refresher course after six months for new research findings
- actual monitoring and evaluation by personally interviewing beneficiaries.

8.2 Would you recommend this training to others?

Yes 35 No -

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Why?

- very useful and relevant for improved nutrition - 4
- a chance for others to learn the technology - 4
- beneficial to all families in rural areas whose income is just enough for family consumption - 3
- promote BIG technology - 2
- increased knowledge - 2
- for ecological balance in the environment - 2
- so that others learn the technical aspects of BIG
- this be a nationwide project of DA for poor families - 2
- useful to poor families
- for more partners when program is implemented
- so that they will also experience our experience at IIRR
- one way of teaching farmers the practical way
- answers family problem in food shortage
- source of additional income for low-income families
- best seminar I have attended learning by doing
- applicable and very informative

8.3 What pre-training preparations would you suggest to participants of future training similar to this?

- survey of the physical and economic structure of the area where the participant come from - 3
- full knowledge of the topic/area/place to be discussed
- participants must bring relevant data from area of assignment to be a realistic basis for re-entry planning.

- communication be advanced by at least a month
- BIG write-up - 2
- real problem assessment before recruiting participants
- pre-payment of TEV's
- advance info will provide enough preparation time - 3
- acquaint future trainees on the nature of the subject.

January 27, 1988
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Silang, Cavite, Philippines

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INDIGENOUS SPECIALISTS IN AGRICULTURE: THE IIRR EXPERIENCE

ABSTRACT

The need to develop an effective strategy of technology transfer to peasants has been increasingly emphasized due to the fact that access to and use of appropriate technology is seen as one of the important factors in increasing food production among the peasants of the Third World. This paper describes the use of Indigenous Specialists as agents of technology transfer by the International Institute of Rural Reconstruction, Silang, Cavite, Philippines. The lessons generated from this experience are discussed to point out the implications for technology transfer strategies.

Low and/or declining food production in the Third World is partly attributed to the use of inappropriate or outmoded technology by large numbers of small farmers. It follows, that if food production is to be increased, appropriate technologies must be developed and practiced by farmers in the Third World.

However, what is even more important in most of the Third World is the proper transfer of the technology so that it reaches the farmers who need it most - the poor and the poorest of the poor.

By Erasmus D. Monu, Director, Research Division, International Institute of Rural Reconstruction, Silang, Cavite, Philippines.

In most third world countries, the responsibility of transferring technology to the farmers rests with the extension service. However, the performance record of most extension services in Third World countries is rather poor. Two groups of reasons have been suggested for this poor record.

The first group of reasons cited by Uphoff and Vandusen (1984) deals with the conditions of work and the extension service as an organization. Some of the reasons are:

1. Extension workers often receive little useful information from their agency to transmit or there is little information available that could improve the farming system.
2. They are posted in the hinterland and are often isolated and ignored, thereby becoming demoralized.
3. They tend to avoid taking responsibility because they are outside the decision-making process and initiative is not encouraged or rewarded.
4. They are often burdened with many tasks besides agricultural extension work, and they have many bureaucratic duties to fulfill.
5. They work in an atmosphere of uncertainty, not knowing how long they will be posted in that area.
6. The conditions of work are often difficult and the facilities for transportation and communication inadequate (Uphoff and Vandusen, 1984: 12-13).

In addition, most extension services in the Third World base their technology transfer strategy on the diffusion of innovation model. According to the diffusion of innovation model, a new idea is initially adopted by a very small but highly innovative group. From the innovators, those with high social and leadership status learn and adopt the new idea. The new idea then spreads throughout the social system until most of the members adopt it. However, the available evidence casts doubt on the efficacy of this strategy as a means of transferring technology to peasants, especially the poor and the poorest of the poor (Monu, 1982a).

The second group of reasons point to the characteristics of the extension worker and the farming system of the peasants as the "causes" of the poor record. Some of the reasons cited are:

1. Most Third World countries fall short greatly of the necessary personnel with the relevant skills and willingness to work at the village level.
2. Peasant farmers are embedded in the wider village farming system, including lifelong acquaintances. The extension worker in most cases does not and cannot belong to this network.
3. Peasants and extension agents tend to have divergent world views. If extension agents are to assist peasants in increasing their food production

capacities, the view points of peasants and extension agents need to be brought together.

4. To be able to transfer appropriate technology to the peasants, the extension worker needs to know and to respect both traditional and "modern" techniques well. The successful extension agent must not only understand what and how new research applies to farming but also know practical farming practices of the localities where the research is to be applied to small farmers.
5. Extension workers are educated by and for work in rational structures. Thus, undoubtedly they work best with farmers who have similar backgrounds. Extension agents wishing to help the productive capacities of peasants must learn how to teach semi-illiterate and illiterate farmers who work in traditional contexts.
6. Extension workers need to recognize and work with existing voluntary organizations within the peasantry (Braton, 1986; Rohren, 1986; Chatterton and Chatterton, 1985).

In addition to the above, it has been argued that unless farmers are involved in developing or refining the technology, the applicability of the technology to the farmers' actual situation is in doubt. It is this thinking that has led to the emergence and the practice of Farming Systems Research and

Extension (FSRE). As Gilbert, Norman and Winch (1980: 14) note, "The concept of FSRE explicitly recognizes the value of the farmers' experience and their traditional experimentation as inputs into developing strategies for improving the productivity of existing farming systems." Indeed there is now a trend towards conducting experiments with farmers in the farmers' fields (Lightfoot, 1986).

Recently Khan, Ahmad and Sofranko (1986) have called for an alternative strategy of technology transfer to complement or replace the existing extension services.

In what follows an attempt is made to describe a strategy (using Indigenous Specialists as agents of technology transfer), developed by the International Institute of Rural Reconstruction, Silang, Cavite, Philippines to transfer agricultural technology to peasants in the Philippines. The lessons generated from this experience are discussed in relation to their policy implications for transfer of technology to peasants.

In a way the experience of IIRR in using Indigenous Specialists could be traced to Ting Hsien, China in the 1920s and 1930s when the concept of training peasants as indigenous specialists was developed and implemented by Dr. Y.C. James Yen and his colleagues in the Mass Education Movement (the predecessor of IIRR).

"At the Farmer's Institutes (in Ting Hsien, China), farm leaders were trained in a complete, yet simple, program of

economic reconstruction for their villages. Their training included the mastery of various subject matter projects, plus an understanding of teaching techniques that enabled them to pass simplified technology on to the untrained farmers in the villages" (Coward and Roskelley, 1973; see also Yen, 1985).

The strategy was based on a set of basic principles developed by Dr. Yen and his colleagues:

"Release not Relief
Outsiders can help but insiders must do the job.
Peasants do not lack brains,
Opportunities are what they lack."

Thus, in the attempt to assist the peasants, to release their potential capacities to improve their own living conditions, the emphasis is put on helping them develop themselves rather than creating dependency. In their belief that peasants have the ability and willingness to learn, it was felt that peasants can absorb technical information and teach their fellow peasants only if they are taught in the right way and the content of what is taught is relevant to them.

From the experience in China and Dr. Yen's work with the Philippine Rural Reconstruction Movement in the 1950s the following conclusions were reached:

1. Indigenous Specialists can greatly increase manpower resources at low cost.

2. Indigenous Specialists can bridge the social distance by bringing together the professional (extension worker) and the peasant.
3. The style and view point of the Indigenous Specialist is closer to that of his/her peers than those of the extension worker.
4. To the Indigenous Specialist "helping others is a reciprocal process. Helping others is not a means of self-actualization as it is to the professional."
5. Indigenous Specialists are not educated by and for work in rational structures, thus gears switching is not necessary.
6. Unlike the extension worker the Indigenous Specialist stays in the village and can be accessible at all times to villagers (Compton, 1973).

THE FARMER SCHOLAR PROGRAM (1969-1975):

It was this wealth of experience that led to the establishment of THE FARMER SCHOLAR PROGRAM by IIRR in 1969 (nine years after IIRR was legally established). The discussion presented below is largely based on the work of Roskelley (1975).

The Farmer Scholar Program was based on a number of assumptions. The assumptions deemed to be pertinent to the present paper are listed below:

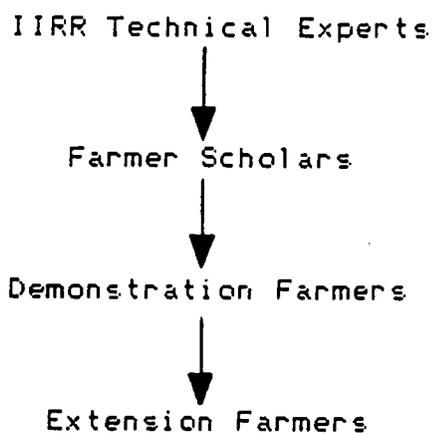
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1. Rural people do not lack brains but opportunities. In most villages there are many individuals whose capabilities and potentialities are not utilized in the development process either because these capabilities are not fully developed or not recognized.
2. Rural people can learn and will share what they learned with their fellow peasants if properly taught and motivated.
3. An effective delivery system through which the "know-how" of science can become the "do-how" of the peasant is urgently needed.
4. The problem that rural people face indicate the need for a new educational approach. This includes three dimensions:
 - a) The curriculum must be new.
 - b) The new curriculum must be simplified and related directly to the difficulties of earning a living.
 - c) It must be taught in a manner that contributes to maximum learning and motivation.
5. Release, not relief. Peasants should not be made to rely on outside manpower and capital to bring about changes they desire. Peasants should be assisted to rely increasingly on locally generated resources, whether human or financial.

Based on these assumptions, a strategy was designed to select and train Indigenous Specialists who would train their fellow farmers.

The plan was that each community would select one or more individuals for specific agricultural disciplines that the villagers felt would contribute to an increase in their agricultural production for training. Upon graduation, these farmers became the FARMER SCHOLARS for their communities. In cooperation with the Barrio (village) Livelihood Committee, five farmers from the village are selected and trained to become THE DEMONSTRATION FARMERS. In turn, each Demonstration Farmer was to train five EXTENSION FARMERS. This means that by training one Farmer Scholar IIRR was contributing to the training of thirty additional "Specialists" for the community. There was no limit placed on the number of farmers to be trained as Farmer Scholars per village.

The flow of agricultural technology information as envisaged under the project is as follows:



It was felt that for the project to run smoothly and gain local acceptability, there was a need to anchor it in a local organization. Since it was obvious that the Barangay (village) Council did not have the expertise in livelihood, it was decided to create a Livelihood Committee outside the Barangay Council. However, in nearly half of the cases the Barangay Councils were reluctant to appoint Livelihood Committees since they saw this as weakening their own authority. Secondly, since the Barangay Councils were searching for visible projects of their own they were not willing to allow a separate group to "Steal the Show" from them.

SELECTION AND TRAINING OF FARMER SCHOLARS:

The prospective Farmer Scholars were selected by the community through the Livelihood Committee. The following criteria were to be used in the selection process:

1. A full-time farmer.
2. Willing to undergo training.
3. Can read write, preferably can understand English.
4. Must be presently engaged in the project he will specialize in and willing to adopt, demonstrate and teach improved farming practices.
5. A permanent resident in the barrio.
6. Respected in his immediate neighborhood.

7. Must have the facilities needed to implement demonstration projects.
8. Major decisions in the home emanate from him.
9. Be in good health.

The selected farmers then underwent training in their respective fields at IIRR and the National Rural Life Center.

During the first trainings it became obvious that the participants who were sent to the training did not match the characteristics of participants expected by IIRR. Discussions were therefore held with the barrio leaders on the selection criteria. Fortunately, this led to an improvement in the selection procedure.

Two months after the training, an evaluation was undertaken to determine what the Farmer Scholar had learned and the extent to which they were applying the skills acquired. The results of the evaluation revealed the following:

1. Less than one-third of the Farmer Sscholars were using any systematic plan to share what they had learned with others. It took them three hours in an informal dialogue to share what they had learnt in four days. They looked upon teaching as merely repeating what they had learned and did not feel effective teaching was done through showing.

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2. Very few of them had tried to put into practice what they had been taught.
3. They did not develop a calendar of activities.

The results showed clearly that there was a need for a change in the teaching methodology.

To accomplish this change an in-service training for the IIRR staff involved in the project was held. As a result the following changes were introduced:

1. Farmer scholars were to be used in the planning process and as teachers.
2. The use of lesson plans was to be emphasized.
3. The principle of "teaching by showing and learning by teaching others" was to be practiced by all farmer scholars". This meant, for example teaching in rice paddies where rice was in all stages of development - from seed to harvest.
4. Half of the four-day training period was to be used in teaching Farmer Scholars how to share what they had learnt with others.

One of the most important strategies of the Farmer Scholar Program was the multiplication effect. For every Farmer Scholar trained, thirty additional individuals are trained. They were trained in the barrio schools set up and run by the Farmer Scholars and Barrio Livelihood Committees. The Farmer Scholars trained five appointed Demonstration

Farmers. The training site differed as the situation demanded; under a mango tree, in the barrio hall, in a rice paddy or a chicken coop. After the Demonstration Farmers have been trained, each in turn assumed the responsibility of training five Extension Farmers.

Table 1. NUMBER OF INDIGENOUS SPECIALISTS TRAINED IN 1973 AND 1975, by type

Year	Farmer Scholars	Demonstration Farmers	Extension Farmers
1973	155	247	62
1975	111	399	662

Source: Roskelley, 1975.

The data in Table 1 clearly show that the multiplier effect principle was working. Thus, as would be expected although fewer Farmer Scholars were trained in 1975 compared to 1973, the number of Demonstration Farmers and Extension Farmers trained in 1975 vastly outnumbered those trained in 1973.

THE PEOPLE'S SCHOOL PROGRAM (1976-1981):

The information presented on the People School Program is based largely on the description of Reed (1983).

The People's School Program which was initiated in 1976 echoes the assumptions on which the Farmer Scholar Program was based. In addition, the formulation of the program benefitted

from some of the lessons learned from the Farmer Scholar Program. The assumptions (relevant to the present paper) on which the people's school program was based are:

1. Lack of opportunities, not lack of brains is the major obstacle to human and rural development.
2. Outsiders can help but insiders must do the job. Outside agencies must limit their role to creating conditions and opportunities for the poor themselves to change their lives.
3. Technology that is introduced and the methods through which it is introduced should be appropriate to both the needs and existing conditions in rural communities.
4. Program should be holistic and integrated as far as possible. A multi-dimensional approach is needed to effectively address rural development issues (Reed, 1983).

Based on these assumptions three major objectives were set for the program:

1. Human Development: When translated into action this meant leadership development.
2. Socio-economic Development: This essentially refers to the transfer of appropriate technology to the peasants in order to improve their standard of living.

3. Institutional Development: As translated into implementation plan, this refers to the establishment of village level, social and economic organizations through which the rural poor address their problems and sustain the implementation of solutions found for these problems.

This paper deals with only the Technology Transfer Strategy. "This strategy involved efforts to simplify scientific knowledge and skills and transfer them to the rural people in forms relevant to their needs by means of training village lay technicians or paraprofessionals (called Barangay Scholars) in specific areas" (Reed, 1983: 12).

To implement the strategy, a conference was held with Barangay Captains and some of the councilors. At this conference the feasibility of training selected villagers in the areas of health, livelihood, literacy and cultural arts was discussed. Those courses which will be most suited to the needs of the villagers were also discussed. To show their support and commitment to the project the leaders agreed that each village would pay for the transportation and food for those they would send for training.

It was also decided that a special committee of villagers would be responsible for the implementation of the project at the village level. This committee was known as the Rural Reconstruction Committee (RRC). This committee was to determine the training courses, select the trainees and raise

funds to send them to the school. It was also responsible for supervising the activities of the Barangay Scholars after their training. The members of the Rural Reconstruction Committee were to be selected by the Barangay Council.

The members of the RRCs attended a series of seminars at IIRR. At the seminars the purpose of the People's School, the integrated approach to rural reconstruction, a review of possible courses to be offered and their contents, the criteria for the selection of the trainees were discussed.

The following criteria were to be used in the selection of the trainees:

1. Can read and write.
2. Must be willing to adopt, demonstrate and teach others.
3. A permanent resident in the community.
4. Respected in his immediate neighborhood.
5. Must have the facilities needed to implement demonstration projects.

The length of training ranged from two to six days. Additional training required was to be done through follow-up and continuing education sessions.

The training content was based on the principle of "Science Simplification", which means reducing complex technical concepts and practices to their most essential components" (Reed, 1983: 25). The teaching methodology was

based on "learning by doing and teach by showing". Techniques used included group-sharing sessions, demonstrations and field visits.

After graduation, a Barangay Scholar was to perform the following functions:

1. Share his/her new knowledge, skills or technology with the villagers either through training or service. Those trained in the area of livelihood are expected to demonstrate the new techniques on their own farms and then to train at least five Barangay Associates, in addition to demonstrating the technology on their own farms will in turn train five others.
2. All Barangay Scholars are to attend continuing education sessions organized by IIRR.
3. The Barangay Scholar should establish linkages with government agencies corresponding to his area of expertise.
4. The Barangay Scholars are to initiate economic and social village level organizations in their communities.

Table 2. SUMMARY OF PEOPLE'S SCHOOL PARTICIPANTS
ACCORDING TO COURSES/DISCIPLINE BY YEAR

LIVELIHOOD	NUMBER OF BARANGAY SCHOLARS TRAINED					Total
	1976	1977	1978	1979	1980	
Upland Rice	13	8	-	2	11	34
Lowland Rice	11	8	-	14	-	33
Feed Grains	7	4	-	-	-	11
Vegetables	10	9	-	-	-	19
Coffee	29	21	-	-	-	50
Mushroom Production	15	10	-	-	-	25
Mushroom Spawn Culture	3	-	-	-	-	3
Fruits	38	-	-	-	-	38
Piggery	24	4	1	5	14	48
Poultry	21	6	1	-	-	28
Cattle	40	5	-	11	-	56
Tailoring	-	-	14	6	-	20
Dressmaking	-	-	5	28	-	33

SOURCE: Reed, 1983: 24.

The data in Table 2 reveal the number of Barangay Scholars (BS) trained between 1976 and 1980 in specific livelihood areas. The data show that the number of BS trained declined in subsequent years compared to the figure for 1976. This was to be expected since the strategy was not to continue to train new BS every year but rather to rely on the BS to train others in their own villages. Thus, subsequent

trainings tended to be for replacement of inactive scholars or new areas identified by the community.

An evaluation of the project indicates that most of the Barangay Scholars in livelihood made use of their new knowledge on their own farms. In addition, 168 out of 294 BS in livelihood shared the information gained with others. Indeed the 168 scholars trained 858 Barangay Scholar Associates who in turn trained 5,146 cooperators. Thus, there is evidence that the multiplier principle had worked.

LESSONS AND POLICY IMPLICATIONS:

The results of the two projects discussed above clearly show that they have served an important role in the development process of the villagers. These projects made it possible for the villagers to have access to technologies that they would not have heard of.

The rest of the paper deals with the lessons that emerge out of these projects and how these can be utilized in future projects to maximize the benefits to be derived from the use of indigenous specialists. We will organize our discussion around the most important factors to be considered when indigenous specialists are utilized in the development process.

THE ROLE OF THE INDIGENOUS SPECIALIST.

The experience gained from the two programs discussed show that the roles of the Indigenous Specialist must be clearly defined but also flexible to allow for adaptation to local needs. It should be born in mind that the Indigenous Specialist is only trained in a specific technical area and within a limited amount of time. It is therefore important that he/she be assigned only the roles for which he/she is trained and has time to accomplish. It is also important that in the beginning, the roles are simple enough so that the Indigenous Specialists can perform them well. This allows them to develop self-confidence and respect from their fellow farmers.

Secondly, the Indigenous Specialist must be made aware of the group/individual he/she is responsible to. This is important for the purpose of clarification of role ambiguities and resolution of problems that may confront the Indigenous Specialist in his/her performance of duties. One of the problems encountered in the implementation of the programs discussed earlier is that the committees which were set up in the village to provide support and supervisory roles for the Indigenous Specialists were ineffective. Thus, in many cases the Indigenous Specialists were left on their own.

SELECTION OF TRAINEES:

There is a need to exercise a great deal of care in the selection of trainees. The experience from the programs discussed above indicate that two important factors must be included in the criteria for selection. The first is the trainees must have similar socio-economic background characteristics as to those of the people they are to serve. Secondly, the trainee must be selected (whenever possible) by the majority of the members he/she is to serve.

In both the Farmer Scholar program and the People's School program the indigenous specialists tended to work with individuals who were similar to themselves (similar in socio-economic background). Thus, if the indigenous specialist is to work successfully with others, the social distance between him/her and the others must be close. It also follows that in heterogenous groups, more than one indigenous specialist may be required. Secondly, where the majority of the group is involved in the selection process, a sense of pride of being involved in the decision-making is shown. It was also observed that the involvement of the group in the selection process made the individuals become more knowledgeable about the roles and the responsibility of the group members. Finally and perhaps even more important, where group members were involved in the selection process of the indigenous specialists, the group members demonstrated greater acceptance and support for the indigenous specialist.

The involvement of the majority of the group members in the selection process must be emphasized because the experience from the program discussed above suggest that when a community is left on its own to select the indigenous specialist, the decision often rested with the local leaders or influentials. In addition, in some cases the decision was based on who should receive the benefits of such position rather than who is the most qualified and suitable person. In the interest of participatory development process, all sectors must be involved in the selection process.

TRAINING OF INDIGENOUS SPECIALISTS:

The following lessons emerge from the two programs discussed above:

1. As much as possible, training should take place in actual work context.
2. Whenever possible, the training staff should come from the local area including competent "non-professionals" (farmers).
3. In developing a training curriculum the following factors should be considered:
 - a) A clear definition of the roles the indigenous specialist is to perform.
 - b) The specific tasks required to perform these roles.

- c) Determine the type and level of knowledge needed to perform these tasks.
- d) Using the principle "teach by showing and learn by doing" develop learning experiences to meet the stated knowledge needs.
- e) Include communication techniques in the training so that the Indigenous Specialists will know how to train others.
- f) Include techniques which the Indigenous Specialist could use to motivate his/her fellow peasants to participate in the training. Experience has shown that although the Indigenous Specialist might have acquired the technical information and be willing to share it with others, the sharing may not take place because the Indigenous Specialist does not have the skills related to how to approach his/her fellow peasants and motivate them to learn.
- g) In relation to the above, it is important that the training should include a session on how to mobilize a group for action, emphasizing things like getting the legitimation of the opinion leaders and working with existing organizations already carrying out similar activities.

4. There is a need to provide Indigenous Specialists with continuing education. This can best be provided through follow-up visits.
5. The scheduling of training must take into account the normal tasks of trainees in earning their livelihood (especially seasonal workload) and social obligations.
6. It is not sufficient to expect a potential Indigenous Specialist to learn from an experienced Indigenous Specialist informally, a structural learning program is needed in a conducive environment. This point needs further clarification. The diffusion of innovation strategy assumes that technology transfer occurs within a group through a trickle down effect, infact through informal communication channels. The use of the Indigenous Specialist approach advocates for a structural way of sharing information. Indeed the Indigenous Specialist is expected to "teach" his/her colleagues. As we noticed in the Farmer Scholar program, at first the Farmer Scholars were sharing their acquired knowledge in an informal manner, thus, what was learnt in four days was shared in three hours. The ineffectiveness of this method led the program implementors to conduct re-orientation courses for the Farmer Scholars.

7. The training should employ multiple instructional techniques to provide variety and to keep the interest of the trainees as high as possible.

SUPPORT AND FOLLOW-UP:

Those who use Indigenous Specialists in technology transfer must provide continuous technical follow-up in addition to logistical and moral support.

Effective follow-up could lead to:

1. The enhancement of the credibility and authority of the Indigenous Specialist since group members know that he/she has access to outside experts and resources.
2. Providing emotional support and encouragement to Indigenous Specialists thereby sustaining their morale and motivation.
3. Assisting Indigenous Specialists solve the problems they encounter in the field and increasing their skills in addition to reinforcement of existing knowledge.
4. Linkage of the Indigenous Specialist to external resources (in the case of the programs discussed linkage with Department of Agriculture staff became possible).

Perhaps one of the more important lessons that emerge out of the programs under discussion is the need to develop a

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strong local organization that would provide support for the Indigenous Specialists. In both programs, institutionalization of the strategy failed because there was no local organization that claimed ownership of the program after IIRR had ceased operation. As noted elsewhere "one of the major problems of development projects is that adequate village level organizations are not created to sustain the project when the official term of the project expires. Thus, in many cases the official withdrawal from the project means the death of the project" (Monu, 1982b: 261).

COMPENSATION:

The evidence from the programs under discussion and others (Easman et. al., 1980) suggest that when requirements of earning a living and other social responsibilities conflict with their "specialist" duties, Indigenous Specialists tend to give priority to the former. Our view is that it is unrealistic to ask poor people to donate their time for free over a long period, especially in disseminating technology which requires follow-up.

In this regard, the following points made by Easman and his associates (1980) are instructive:

1. The volunteer spirit of the Indigenous Specialist wanes as the work becomes routine.

2. The source of compensation seems to be more significant than the amount.
3. Compensation is more effective when the community contributes to it for the following reasons:
 - a) It contributes to the community's feeling of self-reliance.
 - b) It makes the Indigenous Specialist accountable to the community/organization.

CONCLUSION:

In this paper, an attempt has been made to describe two programs carried out by IIRR using Indigenous Specialists as agents of technology transfer. The lessons generated from these experiences are discussed in the light of the important factors to be considered in the utilization of the Indigenous Specialist concept.

As pointed out earlier although the discussion in this paper centers around technology transfer, the use of Indigenous Specialist must be viewed within the wider context of the development process. In modern parlance of development theory, there is a need to empower people so that they can control not only their development process but also their own destiny. The use of the Indigenous Specialist is based on this principle. Those who control the technology that peasants need, control their livelihood activities. By

putting the technology into the hands of the peasants themselves, the empowerment process is enhanced.

The concept of Indigenous Specialist also recognizes the intellectual capacity of the peasant. Not only is he/she able to learn the technology taught by other people, more importantly he/she has a lot to teach the specialists. One of the research activities being conducted by IIRR at the moment is to document the changes that Indigenous Specialists are making a "Bio-Intensive Gardening" technology introduced in the province of Negros, Philippines, to make the technology more appropriate to their environment and to find out how these changes can be used to improve the technology.

We are aware that just making an appropriate technology available to peasants does not end the exploitation and dominance of the powerful but we believe that such efforts will contribute to the realization of the principles, "Release not Relief; Outsiders can Help but Insiders Must Do the Job."

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Progress Report
on the International Network Data Bank (INDB)
June-November 1987

A number of activities and projected outputs had been lined up from June to December 1987 in order to systematically set up the INDB. This was done right after the two-week training on data banking operations and procedures at the Ibon Data Bank Philippines in Manila by two IED staff, Estrella Fernandez and Angela Cariaga from April 29-May 4, 1987. Some form of system in classifying, coding, recording and filing the documents available at IED have been developed and worked on by both staff from the beginning of 1987. This, however, was revised in June to incorporate the learning from the Ibon training.

The INDB, as of November 1987, contains information and documents on the following: 1) the National Rural Reconstruction Movements (NRRMs); 2) Alumni Associations (AAs) and groups; 3) development agencies, organizations and groups in selected countries in Asia, Africa and Latin America; and 4) support agencies, institutions and organizations in development. A special section on publications by development agencies and agency directories is temporarily included in the INDB so as to centralize all types of information on agencies. These will be turned over later to the library, as earlier agreed upon.

The INDB, then, at its present stage of establishment, is a repository of information on agencies, groups and organizations which are engaged directly, indirectly, fully or partly in development activities and projects. The collection includes not only materials on the said categories that are available at IED but also similar materials gathered from the personal files of Dr. Flavio, Atty. Claudio, the International Training Division's organization's file and the library.

At the moment, two IIRR staff are working full time on setting up and maintaining the INDB. Angela Cariaga handles all information on the NRRM's and the AAs. Gabby Santiago (on detail, courtesy of the Research Division from September-December 1987) handles the information on the development agencies. Estrella Fernandez from October 1987 started coming only 2 days a week (till October 31) and then 1 day a week (till December 15, 1987). She devotes 75 percent of this time in supervising the work of the INDB staff and further developing the system. (For details on the job specifications and expected outputs of INDB staff until December 1987, please refer to Attachment 1. Attachment 2 shows the specific outputs of Gabby Santiago and Angela Cariaga.)

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Available Information and Materials in the INDB

Attachment 3 shows the INDB Thesaurus. This is a listing of the general categories of materials that are contained in the INDB. It serves as a guide for the INDB staff in classifying materials to be included in the data bank. It is also a guide for users on the types or categories of materials that are available for their use. A more detailed listing of the documents included in each of these categories is available at IED -- in accession list logbooks (for the information on the NRRMs and AAs) and in individual cards (for the Agency Information).

NRRMs and AAs

1. An updated and complete list of documents on the NRRMs and AAs are recorded in individual accession list logbooks based on the codes/classification in the INDB Thesaurus.
2. Documents on the NRRMs and AAs are properly classified, coded, labelled and filed in the INDB.

Information on Development Agencies

1. Agency Information Cards

These are individual cards containing the basic and important information on each and every agency that is included in the INDB. Each card is supposed to contain information on the 1) nature of the agency; 2) types of activities; 3) address, telephone, telex and cable numbers; 4) name of president or executive director; 5) contact persons; and 6) publications by the agency. (Please refer to attachment 4 for a sample card.)

2. General information materials and documents about each agency are filed in individual agency folders. These are arranged alphabetically, labelled and filed in data file boxes. (For agencies included in the INDB, see attachment 5.)

3. Agency Accession List

This is the counterpart of the NRRM/AA accession list logbook. All documents about an agency are contained in individual cards for easy and quick reference. (See Attachment 6 for sample card.)

4. Publications Accession List

Individual cards are assigned for each publication. It contains a listing of all the publication's issues which are received at the INDB. (See Attachment 7 for sample card.)

5. Publications are placed in individual folders, arranged alphabetically and filed in data file boxes.

Other Materials Available

There are other types of materials available at INDB although these have not yet been classified properly. These include agency directories and special publications, reports and books on rural development strategies and issues. These are, however, filed in separate boxes pending classification and forwarding to the library.

Projected Activities for December 1987-February 1988

Updating the information and materials on the agencies is a top priority during this period since about 80 percent of materials on this category are old. Moreover, majority of the agencies included in the INDB have only very few materials (per agency). At present, the INDB contains materials published in 1988 up to 1987. It is unfortunate that only about 20 percent of the total materials available are current (1986-1987). Solicitation of materials and updating basic information on each agency through correspondence are planned for December 1987.

Meanwhile, the Thesaurus on the agency information is still continuously being developed. This entails a tedious review of materials on each and every agency that have already been included in the INDB. This is being done to further streamline and focus the coverage of the INDB agency information thereby making it more manageable, up to date and useful for IIRR, the NRRMs, the AAs and the training participants who come to the institute. The same kind of review is also being done for publications that will be included in the INDB.

A similar updation of information and documents on the NRRMs and the AAs through correspondence is also planned during the next two months.

Computerization of the masterlist of all INDB materials and agency information cards are expected to be accomplished during this period. Indexing of materials (at least for the NRRMs and AAs) will follow.

The INDB materials can now be retrieved manually using the physical files. By the middle of 1988, a computerized system of retrieval will be aimed for. The INDB then can serve as a model for setting up the planned centralized data bank for the whole institute, once resources and manpower can be made available.

Prepared by Inday Fernandez
November 1987

APPENDIX 17. Articles about IIRR:
Reader's Digest Article on Dr. Yen
Beta Theta Pi
New York Times
Front Lines
World Development Forum

(ATTACHED SEPARATELY)