Lessons Learned from Demonstration Projects

Two workshops were sponsored by the Demonstration Projects (PD/A) in October-November 1998 to identify lessons learned from projects involving agroforestry systems and recuperation of degraded lands. Held in Rio Branco and Belém, the two workshops brought together representatives from over 50 projects in the Amazon and Atlantic forest regions. The workshops provided a unique opportunity for project managers and producers to exchange information and experiences.

Both workshops featured field visits to local projects, which enabled participants to examine practical issues firsthand. At the Cooperative Reforestation (RECA) Project on the border between Acre and Rondônia, for example, participants discussed how RECA has dealt with problems related to quality control and marketing of cupuaçu and heart of palm. At a project coordinated by the Poverty and Environment (POEMA) group in Abaetetuba, Pará, participants examined POEMA’s innovative approach to agroforestry systems, which involves a sequential mix of tree and ground crops that mimics the natural process of regeneration. These visits enabled producers from diverse locations to learn from each other.

All of the participating projects presented posters, which were displayed during the entire workshop and provided a site for contacts and conversations outside of the formal meetings. The workshops combined small group discussions with plenary sessions in which the findings of each group were summarized. Three thematic groups focused on issues related to management of agroforestry systems, processing and marketing of products generated from those systems, and training and extension. Each group held in-depth discussions about project problems and solutions, which provided a basis for identifying the lessons learned.

Five key lessons involving agroforestry systems for small landholders emerged during workshop discussions:

1. Agroforestry systems should be designed to incorporate natural processes. Participating producers frequently pointed out the importance of taking advantage of useful plants that resprout naturally in their agroforestry systems. They also recognized the importance of POEMA’s efforts to design systems that mimic natural regeneration processes. A number of producers are also experimenting with natural pest control. This recognition of the importance of natural processes stems from practical considerations: following nature’s design can save labor that would otherwise be spent in controlling weeds and pests. Since labor is frequently a limiting factor for low-income families engaged in agriculture, this lesson makes practical sense.

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About the Pilot Program

The Pilot Program to Conserve the Brazilian Rain Forest supports an integrated set of projects that will contribute to a reduction in the rate of deforestation of Brazil’s rain forests in a manner consistent with the sustainable development of the area’s natural and human resources, and that will provide lessons for designing future activities. The Pilot Program was launched at the request of the Group of Seven (G-7) industrialized countries and also enjoys financial support from the Commission of the European Communities and the Netherlands. The total volume of financial and technical assistance pledged to the Pilot Program to date, including associated bilateral projects, is about US$250 million. The Pilot Program is coordinated by the World Bank, in accordance with agreements reached by the Pilot Program Participants (the donors and Brazil).

The Pilot Program is designed to address the underlying causes of deforestation in Brazil’s rain forests through a three-pronged approach. Projects will help strengthen the capacity of the public sector to set and enforce sound environmental policy; improve management of special protected areas, including parks, extractive reserves, national forests and indigenous lands; and increase the knowledge base on conservation of the rain forest and sustainable utilization of its resources.
EXTRACTIVE RESERVES

Recent evaluations of the Extractive Reserves Project indicate that although significant progress has been made under the project toward the establishment of extractive reserves, their consolidation will require a longer time frame. To this end, the National Center for the Sustainable Development of Traditional Populations (CNPT/IBAMA) requested a four-year extension of the project (referred to as the “transitional phase” or “RESEX 2”) until April 2003. RESEX 2 was conceived as a natural progression of the first extractive reserves project, to focus on the implementation of production systems and environmental management plans designed over the first four years.

The European Commission (EC) has approved funding in the amount of ECU 7.0 million and, pending donor clearance, the Bank will reallocate US$1 million from the Rain Forest Trust Fund for RESEX 2. Total funding for the extension is estimated at US$9.9 million. Technical discussions were held in Brasilia in October 1998 to finalize the design of the project extension. The transitional phase project is expected to be underway by April 1999, when the current Extractive Reserves Project was originally scheduled to have closed.

FIRE PREVENTION AND CONTROL EFFORTS

Amazon Emergency Fire Prevention and Control

In the wake of devastating fires in the Amazonian state of Roraima during early 1998, the Brazilian government requested an emergency loan from the Bank for fire prevention and control efforts in other endangered areas of the region during the 1998 dry season.

The resulting Amazon Emergency Fire Prevention and Control Project (PROARCO) was prepared and negotiated in four months. It was approved by the Bank’s Board of Directors on September 10, 1998. Although parts of the project are already under implementation with emergency funding provided by the Bank from another existing loan (the National Environmental Project-PNMA) and the Brazilian government, the main emergency loan of US$15 million has not yet been finalized. This is expected by mid-January 1999.

PROARCO has four components: (1) risk assessment and fire monitoring through the integration of remote sensing imagery, and soil moisture, forest type and human activity maps; (2) forest fire prevention activities, including public awareness campaigns, and training at the local and state levels in fire prevention and control; (3) forest fire suppression, providing equipment, training and contingency plans for the combat of forest fires and the participation of other government agencies and the private sector in fire-fighting efforts; and (4) project coordination, monitoring and evaluation, and studies.

Fire Prevention, Mobilization and Training

This new Pilot Program project was also given high priority for rapid, joint preparation with the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA) and the Amazon Working Group (GTA). The main strategy of the Fire Prevention, Mobilization and Training Project (PROTEGER) is to mobilize the population of the critical fire-prone areas through the existing GTA network of nine regional coordination centers.

Most of this project has already been implemented. GTA and IBAMA, through the project’s “PREVIFOGO” program, trained 200 fire “monitors,” who in turn organized field training for 12,000 community leaders. Each of these community leaders returned to their communities to train approximately ten people each, reaching an estimated total population of 120,000 within the critical high-risk area of the so-called “deforestation belt” in the southern and eastern Amazon. The monitors are also reported to have created some 200 community fire brigades in rural areas.

PROTEGER is being funded through a $1.0 million US Agency for International Development (USAID) grant to GTA, through the UN Development Programme (which had initially advanced US$550,000 to GTA to prefinance project activities, pending disbursement of the USAID funds). PROTEGER is considered to be a good example of partnership between the government and NGOs for timely, effective action in the field.

Fire and Deforestation Control

The preparation of the Fire and Deforestation Control Project (PRODESQUE) was temporarily delayed due to the preparation of the PROARCO and PROTEGER projects. PRODESQUE would be supported primarily

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Fire Control  

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through grant financing from the Pilot Program.

A revised project proposal was submitted to the Bank in October 1998. In light of continued debate about the definition of project implementation roles to be played by IBAMA and the Amazon states in conjunction with the Natural Resources Policy Project (NRPP), the definition of priority areas under the project, and the potential for overlap with other related projects, it was agreed to postpone project appraisal. This will allow for further refinement of project design to incorporate the lessons learned thusfar from the implementation of the PROARCO, PROTEGER and NRPP projects.

FLOODPLAINS MANAGEMENT

The Floodplains (Varzea) Management Project was appraised in May 1998. Technical discussions on the project took place in October and November 1998. A revised draft grant agreement is currently under review by the Brazilian government, and project negotiations will be finalized as soon as the status of Pilot Program funding in the government’s 1999 budget can be clarified (see related article on page 4). Signature of the grant agreement is expected by late February 1999, with the project underway around October 1999.

Several donors have confirmed their financing commitments to the project, which now stands fully financed for a total of approximately US$16 million. The German Bank for Reconstruction (KfW) has pledged DM 13 million; the United Kingdom’s Department for International Development (DFID) will provide £3.0 million; the Rain Forest Trust Fund will grant US$2 million; and the Brazilian government will provide counterpart financing in the amount of US$1.6 million.

A workshop focusing on the project’s first component (Strategic Studies) is being planned for March 1999 to: (1) review the existing level and basis of scientific knowledge of the varzea; (2) identify knowledge gaps as well as information which could be covered by the studies; (3) reach agreement on methodologies and presentation of results of the studies; and (4) identify potential executors in a general sense (since studies will be put to a competitive bidding process). TORs for the studies will be drafted on the basis of workshop suggestions.

INDIGENOUS LANDS

The Mid-Term Review of the Indigenous Lands Project (PPTAL) took place in October 1998. Following an independent evaluation of project performance and a participatory seminar on evaluation results, a joint mission was held in Brasília to complete the review process. Participating in the review were representatives of the project’s Technical Secretariat (SETEC), the National Indian Foundation (FUNAI) and the project’s Consultative Commission, as well as representatives from the World Bank, the German Society for Technical Cooperation (GTZ), the German Bank for Reconstruction (KfW), academia, NGOs and indigenist organizations.

The review concluded that the project has made significant strides towards the primary goal of legalizing indigenous lands. Over 20 million hectares have already been demarcated with project funds, making the current government a record-holder in demarcation. This progress reflects major implementation improvement since the July 1997 and February 1998 supervision missions, as technical and operational bottlenecks were overcome to return the project to its original timetable.

The mid-term review also noted the improvement of FUNAI’s land legalization procedures, leading to better technical quality and greater indigenous participation in the process. Nevertheless, the reviewers emphasized that more needs to be done to foster greater participation. As a first step, it was recommended that an evaluation of various indigenous participatory initiatives take place, with the incorporation of any resulting recommendations into FUNAI’s technical norms.

FUNAI’s Land Affairs Directorate informed the mid-term review mission that it had contracted for strategic planning services to improve the directorate. SETEC has also agreed to prepare strategies to: (1) carry out training and GIS subcomponents; (2) foster more effective integration of the project and understanding of project objectives and activities throughout FUNAI; (3) improve dissemination of information on the project; (4) restructure SETEC to reflect likely expanded responsibilities for indigenous issues related to other Pilot Program projects; and (5) review its financial management system.

The monitoring and evaluation system remains incomplete. SETEC agreed to prepare a list of key impact indicators. The priority list of indigenous lands, revised annually, will continue to function as a powerful monitoring tool.

NATURAL RESOURCES POLICY

In October and November 1998, the Bank conducted a joint supervision mission for the Natural Resources Policy Project (NRPP) with representatives of KfW, the EC and DFID. This was the first formal supervision of the project and included visits to Mato Grosso, Roraima, Tocantins, Maranhão, Acre and Pará. All of the field visits, both to priority areas of the Integrated Environmental Management Subprojects (PGAIs) and to the state capitals, were accompanied by representatives of the Technical Secretariat. The supervision mission
PD/A Lessons Learned  

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2. Agroforestry systems should contain a mix of resources to generate products for both markets and subsistence production. While ecologists point out the environmental benefits of maintaining biological diversity, small-scale farmers often recognize that diversity helps reduce the risks inherent in agriculture. In both workshops there was general consensus about the need to combine both market and subsistence products as a risk-reducing measure. This appears to be especially critical in agroforestry, which requires a long-term investment and as a result involves greater risk for low-income producers.

3. Markets and economic viability should be considered from the start. This is a lesson that participants in the Demonstration Projects have frequently learned the hard way. The RECA Project, for example, only began to consider markets after establishing extensive plantations of cupuacu and peach palm, and they discovered that local markets for these products were extremely limited. Members of the COMAG cooperative in Ourém, Pará, also discovered that their newly constructed processing plant produced more fruit pulp than the local market could absorb. For community groups such as these, learning about markets for new products often takes considerable time. Members of the Comaja Cooperative in Laranjal do Jari, Amapá, were more fortunate: the state government is committed to purchasing part of the Brazil nut production for use in school lunches, which has given the cooperative time to learn about other marketing opportunities.

4. Technical solutions are not sufficient. Problems associated with a strictly technical approach were revealed during one of the field visits to Igarapé-Açu, Pará. Here researchers in the "SHIFT" project are testing alternatives to slash-and-burn agriculture, which is increasingly unsustainable in this region. One of the project’s main innovations is a machine that grinds up vegetation, thus eliminating the need for burning. While this approach reduces nutrient losses and appears to be technically sound, the visiting producers stated that they would be reluctant to adopt an expensive, hard-to-maintain machine for grinding vegetation. Technical solutions to agricultural problems will only work if farmers can implement them.

5. Exchange of information between projects is a useful tool for extension. The most important lessons learned during these workshops took place between the producers themselves. During the field visits and between formal meetings, they quickly established contacts among themselves and actively exchanged information about successes and failures in cropping, processing and marketing. This networking and exchange was especially visible among the diverse representatives of the "Fruits of the Cerrado" Program, which included participants in twelve PD/A subprojects involving ten farmer and two indigenous associations in Tocantins and Maranhão states. With decreasing costs of communication, such informal farmer networks are likely to play an increasingly important role in agricultural extension.

Natural Resources Policy  

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focused on: (1) the results of institutional strengthening of the state environmental agencies; (2) the integration and coordination among actors; (3) the implementation and replanning of the PGAIs; and (4) subproject administration and finance.

The mission found varied experiences among the different states, noting particularly positive developments in Tocantins and Mato Grosso. The mission concluded with a final meeting in Brasília outlining several programmatic and procedural recommendations for each of the states visited as well as the Technical Secretariat. The first round of formal supervision will conclude with a joint supervision mission to Rondônia, Amapá and Amazonas in March 1999.

SCIENCE CENTERS AND DIRECTED RESEARCH

The Emergency Assistance Project closed on June 30, 1998 with the majority of programmed work completed. While the Science Centers and Directed Research Project-Phase 1 is scheduled to close on March 31, 1999, the Brazilian government plans to request another extension of this project until December 31, 1999.

The European Commission finalized a bilateral contract with FINEP in July 1998 to provide funding (ECU 4.8 million) for a second round of directed research. The second call for proposals was issued in September 1998.

**Good News on Pilot Program Budget**

By mid-December 1998, Brazilian officials had informed the World Bank and G-7 ambassadors that the government intends to restore grant-funded elements of the Pilot Program budget. The majority of Pilot Program grant and counterpart funds are programmed annually as part of the preparation and approval of the Brazilian national budget. Anticipated Pilot Program expenditures were initially reduced in November 1998 during national budgetary cutbacks undertaken as part of the austerity measures related to the IMF financial assistance package to Brazil. Government officials were optimistic that the required funds for PPG7 projects will be reinstated in the national budget.