
ANGAP
**National Association for the Management
of Protected Areas of Madagascar**

**SAVEM Institutional Contract
Third Quarterly Report, Third Project Year
April—June 1995**

**Submitted to
United States Agency for International Development, Madagascar
under Contract No. 623-0110-C-00-1041-00**

**Submitted by
Tropical Research and Development, Inc.
Gainesville, Florida, USA**

July 1995



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Acronyms

ANGAP	National Association for the Management of Protected Areas (Association pour la Gestion des Aires Protegees)
FTM	Foiben Taosarintanin I Madagasikara
KEPEM	Knowledge and Effective Policies for Environmental Management
SAVEM	Sustainable Approach for Viable Environment Management
TR&D	Tropical Research and Development, Inc.

Section I. Tropical Research and Development's Report

A. Narrative

1. Background

The final objective of the ANGAP Institutional Contract is the establishment of the National Association for the Management of Protected Areas (ANGAP) with sufficient authority and capacity to perform its management functions, as well as the creation of a biodiversity information unit, and to implement both an integrated conservation and development program and a protected area monitoring and evaluation system within ANGAP. Technical leadership has been provided by the contractor to ANGAP in defining (1) ANGAP's overall integrated conservation and development program strategy for the protected area program; (2) the approach to hypothesis testing within integrated conservation and development programs working in Madagascar; (3) the monitoring and evaluation system for ANGAP and the protected area program (4) the long-term sustainability of the protected area program, and (5) the needs assessment and implementation strategy for georeferenced database management systems for biodiversity data.

Current contract obligations extend through December 31, 1996, for a total estimated cost of \$6,069,175. Level of effort includes 138 person-months of long-term technical assistance, and 40 person-months of short-term technical assistance. USAID is in the process of fully funding the contract.

2. Expected Results

TR&D's contractual responsibilities for the institutional development of ANGAP can be summarized in the following expected results or task areas by the end of the contract.

2.1. Task 1: Establishment of a technically and professionally credible role for ANGAP in shaping policy and planning and support in preparation for its long-term institutional role in biodiversity conservation in Madagascar.

The overall strategy adopted to reach these results includes the following three subobjectives:

- (1) Support to ANGAP and the protected area program in clarifying and developing medium- and long-term objectives, including strategic planning to accomplish these objectives. This includes support to ANGAP as it evolves into Madagascar's national park service, and ecotourism development in protected areas. This also includes study and possible changes of ANGAP's basic organizational structure. Priority has been given to four national parks: Ranomafana, Andasibe, Amber Mountain, and Isalo, with a fifth, Masoala, under consideration due to the need to add a marine component.
- (2) Support to ANGAP in coordinating the protected area program (currently 39 protected areas), and its evolution toward ever greater responsibilities in the direct management of the protected areas.
- (3) Institutional support in achieving ANGAP's purposes and objectives in implementing a national policy on biodiversity.

2.2. Task 2: Development of ANGAP's institutional capacity in administration and finance.

The overall strategy to accomplish results includes the following:

- (1) Reinforcement of ANGAP's capacity for personnel management. This has included such activities as encouraging graded salary scales and written job descriptions for personnel;
- (2) Reinforcement of ANGAP's administrative and financial procedures. This has included assistance in establishing a computerized accounting system; training personnel in financial management;

- (3) Reinforcement of ANGAP's capacity for grants management. This has included efforts to develop an improved relationship between ANGAP and the PACT grants management unit through team building and other activities, as well as efforts to assist ANGAP focus its grants management experience in areas consistent with its long-term vision;
- (4) financial viability of ANGAP beyond the projected end of donor funding. This has led to involvement in trust fund development, seeking donors interested in capital investments into such a trust fund, consideration and active search for ecotourism-generated funds, and other means of generating revenue.

2.3. Task 3: Establishment of a system of coordinating activities of individual protected area managers

The overall strategy is to set up a system-wide monitoring program in close collaboration with the protected area managers based on the agreed need to follow a series of steps (described in the monitoring and evaluation section), leading to establishing priorities, setting out testable hypotheses that link development with conservation goals, identifying target populations, and the scale of activity outputs thought needed to achieve impact and visible results. Having jointly achieved this, ANGAP and the protected area managers are able together to monitor program progress and make course corrections as needed. Coordination includes communication of results through the protected area program network and through periodic team-building workshops among all those concerned in the management of the protected area program.

A major focus of efforts has been to develop within ANGAP a service-oriented philosophy towards the protected area programs, rather than one of top-down control.

2.4. Task 4: Development within ANGAP of a capacity in biodiversity and socio-economic planning and management and monitoring and evaluation.

2.4.1. Task 4A: Development of the capacity for ANGAP to shape biodiversity policy and planning on behalf of the Government of Madagascar

Our overall strategy and expected results include the following:

- (1) Separating the Department of Information and Valorization of Biodiversity into information and valorization divisions for biodiversity data management will begin (1995–96). It is the long-term objective to see the information component remaining within ANGAP and the valorization component, relating to biodiversity *outside protected areas*, will eventually move over into the Division of Forestry, with ANGAP's support (1996–97).
- (2) The information component will support and manage data concerning the protected areas of Madagascar, which is currently coordinated by ANGAP (1995–96). This component will include the technical tools (e.g., Geographic Information Systems) and databases to make this possible. This component will support Department of Information and Valorization of Biodiversity and field-operator protected area biodiversity activities, ANGAP's monitoring and evaluation activities within the protected area programs (1995–96). This division of the Department of Information and Valorization of Biodiversity will also provide technical data management support to all ANGAP departments (1995–96). This Department of Information and Valorization of Biodiversity component will eventually become part of the future national park service's technical unit (1997–99).
- (3) The valorization of biodiversity data management activities will be more national in focus and not limited to the protected areas. Initially this division within ANGAP's Department of Information and Valorization of Biodiversity will provide support to the Division of Forestry's biodiversity unit (1995–96), then it will provide all the technical biodiversity data management activities outside protected areas under Division of Forestry responsibility (1996–97); ANGAP itself will focus its biodiversity data collection and management activities only within the protected area limits and within the defined peripheral zones (1997–99).

2.4.2. Task 4B: Development of a capacity to monitor and evaluate the impact of conservation and rural development activities on protected areas.

Our overall strategy and expected results include the following:

- (1) An ANGAP system-wide monitoring system developed in close cooperation with protected area field operators who have been officially engaged by the Government of Madagascar, through the Division of Forestry and ANGAP, to manage the integrated conservation and development projects (integrated conservation and development program's) in the protected areas. This system will respond to the biodiversity and socioeconomic monitoring needs of the Government of Madagascar, ANGAP, and USAID for information coming from the protected areas of Madagascar and their defined peripheral zones.
- (2) To accomplish the above, the monitoring and evaluation system will create four levels of monitoring.
 1. Monitoring indicators for implementation of integrated conservation and development program process (Y/N) (annual)
 2. Monitoring indicators for long-term integrated conservation and development program impact (annual)
 3. Output indicators associated with annual work plan activities (semi-annual)
 4. Short-term impact of project activities on protected areas (hypothesis testing)
 - (a) socioeconomic surveys on key development activities targeted to the four top priority pressures on the protected areas in priority subzones.
 - (b) ecological monitoring of protected area (indicator species, stream water quality)
- (3) Integrated conservation and development program activities will be monitored to assess *impact* on
 - those groups and people most directly benefiting from project activities among whom behavioral changes with regard to peripheral area natural resources are expected; and,
 - upon the protected area.

2.5. Task 5: Establishment of ANGAP as a source of information and hub of an education and communication network on biodiversity conservation.

Our overall strategy and expected results include improvement in communication interchange and support in three principal areas.

- (1) Between ANGAP and other institutions within Antanananarivo (e.g., e-mail links, and exchanging of database catalogues with USAID, ORSTOM, FTM [Foiben Taosarintanin I Madagasikara]), etc.;
- (2) Between ANGAP and its protected area network (e.g., packet radio training and maintenance, and communication; and e-mail links with field operators);
- (3) Between ANGAP and general public (national and international). This is accomplished through support to the ANGAP Hanitriniala quarterly review (by writing or reviewing articles); through helping develop publicity tools for ANGAP (e.g., posters, calenders, display booths, CD-ROM protected area information disk support, etc.); through supporting television and radio coverage of important ANGAP conferences and workshops.

2.6. Task 6: Professional development for ANGAP and integrated conservation and development program staff in appropriate technical fields.

Our strategy for accomplishing this objective and the expected results includes:

- (1) Long-term and annual review with ANGAP departments of their institutional training needs;
- (2) Planning and implementing of an annual training program for ANGAP, the Division of Forestry, and protected area program staff;
- (3) Emphasis on training by increasing general program planning and management skills, monitoring and evaluation, analysis and reporting; park management and planning, and ecotourism. Most of this will be accomplished in-country. Our training strategy requires that all short-term, expatriate technical assistance personnel be assigned to specific in-country local personnel who will receive "hands-on" training. We also attempt to identify and bring back the same short-term technical assistance to provide long-term training continuity.
- (4) Development of local institutional training capacities to provide in-country training.

3. Summary of Implemented Activities

Core activities initiated and/or completed during the current quarter are summarized below in terms of the six major tasks and expected core results and task areas outlined in Section 2. In addition, two tables are provided to summarize significant contract activities using short-term technical assistance and training budgets.

3.1. Tropical Research and Development's (Prime Contractor) Activities

3.1.1. Task 1: Establishment of a technically and professionally credible role for ANGAP in shaping policy and support in preparation for its long-term institutional role in biodiversity conservation in Madagascar.

- (1) One-week visit (May 14–20) by South Africa Parks Board Director for Research and Development, Dr. Hall-Martin was specifically sent by the Parks Board executive director, Dr. G.A. Robinson, to initiate a formal plan of sister parks system collaboration and support. ANGAP and USAID, as well as field staff in Isalo and Andasibe, met with Dr. Hall-Martin in this planning process. Detailed training program for rest of 1995 (see below) and future technical support from the Parks Board was defined. ANGAP's director general specifically made a request for a one-year, long-term technical assistance director of operations-type of person from South African parks system to more directly support various park managers in-training in the priority parks and reserves. Hopefully such a position would be filled by early 1996, with the use of short-term technical assistance between now and then. This is under discussion with USAID.
- (2) ANGAP's board of directors met April 27. During this meeting, the board approved the new park entrance fees proposed by ANGAP and unanimously voted for South Africa's National Parks Board to become a sister parks system to ANGAP. Raising park fees must not be approved by an interministerial committee before application. Approval was also given for plans to recruit park managers for several national parks and reserves under current ANGAP field management (Isalo, Lokobe, Manombo).
- (3) Two short-term expatriate consultants, assisted by two Malagasy, worked on developing a community village-based natural resource management methodology in Zahamena. The ultimate purpose is to establish a natural resource management contract with communities in the peripheral zones of protected areas. In the spirit of reengineering, this consultancy was a collaborative effort between the "Knowledge and Effective Policies for Environmental Management" (KEPEM) and "Sustainable Approach for Viable Environment Management" (SAVEM) projects. TR&D fielded one of the consultants (social forester) for nine weeks.

- (4) Global Environmental Facility technical workshop: ANGAP's Department of Information and Valorization of Biodiversity computer laboratory was used in preparation of many of the technical mapping products for this workshop (April 10–14). ANGAP staff then participated in this workshop, whose purpose was to research priorities for biodiversity in the coming years and identify where additional data were needed. The workshop also helped narrow down the location of potential new areas to be added to the protected area network.

3.1.2. Task 2: Development of ANGAP's institutional capacity in administration and finance

- (1) Visit by a McArthur Foundation representative mid-June. Assistance was given to ANGAP to prepare a terms of reference document for submission to this foundation to finance technical support to set up an ANGAP trust fund.
- (2) Support to administrative section continued with regard to modification of park entrance fee structure and format, research, and film fees within the parks and reserves. Terms of reference for local hire legal help in this endeavor were prepared, and several firms responded with bids. Selection is in process for appropriate candidate.
- (3) The issue of ANGAP's salary structure was raised again this quarter. Donors have jointly given clear indications that future raises, involving donor funds, must be agreed upon by donors prior to implementation.
- (4) Assistance was provided by the TR&D team to DAF for tracking revenue earned from the sale of posters, calendars, etc., in order to determine the cost-benefits of these activities.
- (5) Support was provided to Isalo National Park Manager in-training in preparing a grant proposal to the PACT grants management unit for \$250,000, two-year program support. This would be ANGAP's first experience with AID funds in the role of an integrated conservation and development program field operator. Experience with this will assist AID and other donors determine ANGAP's readiness to assume greater control of program funds for the protected areas during Phase 2 of the environmental program. Complementary support was also given to assist ANGAP (DAF/DSEP) prepare a proposal to the World Bank for support for the next year and a half, including funding for an ANGAP central office in Antananarivo (US\$ 1.2 million).
- (6) As part of the endeavor to identify sources of revenue that will contribute to long-term sustainability, ANGAP received in early June its first shipment of national parks and reserves posters. Funded through TR&D/USAID seed money as another source of income and for communications purposes, four separate posters (2000 of each) were produced for ANGAP in South Africa. Plans are to sell each for about \$10. The revenue will be placed back into publicity and communications endeavors, as well as help pay some of ANGAP operating costs (yet to be identified).
- (7) Another income-generating activity with short-term consultant support was the nearing completion on the final design of a 24-month calendar (1996, 1997) of the national parks and reserves of Madagascar.

3.1.3. Task 3: Establishment of a system of coordinating activities of individual protected area managers

- (1) As part of a USAID reorientation for improved results of programs activities, TR&D staff worked closely with USAID, the PACT grants management unit, KEPEM, as well as ANGAP and selected Malagasy government agencies (Division of Forestry, ONE) through a series of workshops to understand reengineering concepts and to initiate these.
- (2) The move to become a parks service, which saw significant advancement this quarter with the formal association of the South African National Parks Board into the program, is seen as an important step toward better system-level coordination of the kind of activities most in line with ANGAP's long-term future.

3.1.4. Task 4: Socioeconomic and Biodiversity Monitoring and Policy Support

3.1.4.1 Task 4A: Development of the capacity for ANGAP to shape biodiversity policy and planning on behalf of the government of Madagascar.

See section 3.3.

3.1.4.2. Task 4B: Development of a capacity to monitor and evaluate the impact of conservation and rural development activities on protected areas.

- (1) Field visits were completed by the monitoring and evaluation advisor to Lokobe (April 18–22) and Isalo (May 16–17) in preparation to initiate monitoring and evaluation activities in what are new sites for ANGAP. Continued support to the Amber Mountain integrated conservation and development program (May 2–5), as well as Ranomafana, Andohahela, and Andasibe were completed, with focus on the fourth pillar of the monitoring and evaluation system being put into place, which is selection and monitoring of households for assessing impact of project activities on peripheral zone populations (changed behavior). While the other three sections of the monitoring system are being implemented by the program, this fourth has not been as readily accepted and implemented by field operators.
- (2) Analysis of monitoring indicator data from 1994 Tables 1, 2, and 3 information initiated by DSEP staff. The 1994 data from all integrated conservation and development programs, due Feb. 1, have only been received by six integrated conservation and development programs by the end of this quarter (Ranomafana, Amber Mountain, Zahamena, Andohahela, Masoala, and Andringitra). The SAVEM project integrated conservation and development program of Andasibe has yet to provide its data. We have yet to receive similar data from Marojejy, Ankarafantsika, and Bemaraha.

3.1.5. Task 5: Establishment of ANGAP as a source of information and hub of an education and communication network on biodiversity conservation.

- (1) ANGAP's video of the four priority national parks (Isalo, Amber Mountain, Andasibe, and Ranomafana) neared completion this quarter. The eight-minute footage for each national park has been completed and review is underway for the sound track that will be added at a later date. This video is intended as a source of publicity for Malagasy and expatriates alike on these parks and as a potential source of additional revenue. ANGAP expects to at least recouperate the expense of creating the video.
- (2) The creation of four publicity pamphlets for the four priority national parks has neared completion with the assistance of a short-term consultant. The four completed prototypes will be sent to the printer in July. These will be distributed to tourists who arrive at these parks. integrated conservation and development program staff at each of the parks provided substantial assistance in this endeavor.
- (3) ANGAP's director general attended a three-day seminar on Madagascar at the field museum in Chicago (June 2-4), and presented the protected area program. This was ANGAP's first opportunity to sell its National Parks and Reserves series of posters with the assistance of TR&D staff.
- (4) TR&D assisted ANGAP to acquire new space on the ground floor of the ANGAP building, with a large glass display area, as the location for tourists to purchase park entrance fees in Antananarivo. There is room to create a small shop to sell various items, including products created by peripheral zone populations of the various parks and reserves.

3.1.6. Task 6: Professional development for ANGAP and integrated conservation and development program staff in appropriate technical fields. Specific major activities developed during the past quarter for training include the following:

- (1) Planning for the rest of this year, based on the new partnership with the South African National Parks Board.

- (a) Charles Rakotondrainibe, park manager in training for Isalo National Park, was sent June 14 to understudy park warden, game rangers, tourism, technical and community liaison staff in Addo, Golden Gate, Tsitsikamma, and Kruger National Parks in South Africa. That trip runs through Aug. 20.
- (b) Park managers in training from Ranomafana, Amber Mountain, Andasibe, and Masoala depart for South Africa Aug. 12 for three weeks. Masoala and Andasibe will visit Tsitsikamma to understudy activities of park warden and staff (game rangers, technical, tourism, environmental education), with emphasis on forest and marine environmental management and tourism utilisation. Amber Mountain and Ranomafana park managers will begin with the program at Tsitsikamma and then move on to Golden Gate, with emphasis on management of mountain environment, grassland habitat, fire management, walking trails, and youth activities.
- (c) ANGAP department director of public relations and ecotourism (DRHC) will work with the Parks Board head of public relations and ecotourism, Susan van der Merwe, Aug. 2–12.
- (d) ANGAP department directors of DSEP, DAF, and Department of Information and Valorization of Biodiversity will spend part of a two-week study tour of their respective sections in Pretoria. (TBD for 1995)
- (e) Park managers in training from Lokobe and Manombo will travel to South Africa for six week training periods similar to (b) above. (TBD for 1995)

3.2. Current buy-ins

There were no buy-ins this quarter.

3.3 Current subcontracting activities—The Tropical Forest Management Trust

The Tropical Forest Management Trust is subcontracted to provide the long-term Geographic Information Systems advisor to assist in the development of the Department of Information and Valorization of Biodiversity within ANGAP. Specific activities of the subcontractor for the reporting period are discussed below, and are given in terms of the contract task objectives.

3.3.1. Task 3: Establishment of a system of coordinating activities of individual protected area managers:

- (1) Supervision of georeferenced data base design for Masoala.
- (2) Formal recognition of ANGAP's Department of Information and Valorization of Biodiversity as the representative of all integrated conservation and development programs operators to negotiate digitized georeferenced data acquisition with FTM.

3.3.2. Task 4: Socioeconomic and Biodiversity Monitoring and Policy Support

3.3.2.1. Task 4A: Development of the capacity for ANGAP to shape biodiversity policy and planning on behalf of the government of Madagascar.

- (1) Study tour for the department head of the Department of Information and Valorization of Biodiversity and a Division of Forestry staff in Costa Rica on miscellaneous aspects of biodiversity management—inventory, research, legal framework, rights agreements, etc.
- (2) Negotiation and elaboration of a draft agreement with the Peregrine Fund and Stony Brook (NY) to collaborate on research within the protected areas of Madagascar.
- (3) Establishment of terms of reference and recruitment of a Geographic Information Systems technician

for the Department of Information and Valorization of Biodiversity in charge of digitizing and database maintenance issues. This person will be important in providing technical support to field operator staff needs in this area.

- (4) Organization and supervision of the pre-Global Environmental Facility scientific workshop (April 10–14) with Conservation International.
- (5) The Department of Information and Valorization of Biodiversity is part of the working group in charge of preparing the coastal and marine environment part of EP2. A document will be submitted to World Bank.
- (6) Preliminary studies for the elaboration of the national biodiversity monograph were initiated.

3.3.2.2. Task 4B: Development of a capacity to monitor and evaluate the impact of conservation and rural development activities on protected areas.

- (1) Establishment of a needs assessment and specifications for acquisition of new GIS equipment for ANGAP and integrated conservation and development program within the USAID/AID PASA. This equipment is essential for development of field operator monitoring and evaluation capabilities.
- (2) Cartographic data digitizing for Isalo, Lokobe, Ranomafana, and Zahamena needed to support implementation of long-term impact indicators and for program monitoring and planning needs.
- (3) Implementation of Geographic Information System units at Amber Mountain and Zahamena in support of program monitoring and evaluation staff.

3.3.3. Task 5: Establishment of ANGAP as a source of information and hub of an education and communication network on biodiversity conservation.

- (1) Participation to the National Biodiversity Day (7 April).
- (2) Acquisition of satellite imagery for Andohahela necessary for long-term monitoring and program implementation.
- (3) Coordination with DEF to share thematic mapper satellite images used through the National Forest Inventory project.
- (4) Support to the AID Geographic Information Systems Working Group to establish standards and share data among AID projects.
- (5) Definition of security regulations for the Geographic Information Systems ANGAP computer rooms.
- (6) Implementation of a database to ensure follow-up of research activities within the protected areas. All existing and new research activities by both national and international scientists will be tracked.
- (7) Support to the national director of Masoala for her presentation of the park delimitation during the annual protected areas meeting of the integrated conservation and development program national directors in Morondava in June.
- (8) Continued negotiation with FTM for data acquisition needs of program.
- (9) Demonstrations of ANGAP capabilities to support various local institutions and projects (including the PACT grants management unit, FTM, World Bank, and USAID consultants) in the use of the Department of Information and Valorization of Biodiversity Geographic Information Systems facilities and databases.

3.3.4. Task 6: Professional development for ANGAP and integrated conservation and development program staff in appropriate technical fields.

Specific major activities in training include

- (1) training and advising to ANGAP's Department of Information and Valorization of Biodiversity on Geographic Information Systems issues;
- (2) support to Isalo National Park manager to prepare documents to be used during his training in South Africa;
- (3) field training to integrated conservation and development programs operators staff for georeferenced data collection using Global Positioning System and photo interpretation;
- (4) training selected national staff within monitoring and evaluation units of Ranomafana and Masoala integrated conservation and development programs, as well as the Division of Forestry and CNRE, in remote sensing in collaboration with USGS/EDC (15 May–9 June); and
- (5) training basic digitizing techniques to Amber Mountain and Ranomafana's integrated conservation and development program monitoring and evaluation staff. Most operators have designated within their monitoring and evaluation staff at least one person to learn various Geographic Information Systems activities.

4. Performance

4.1. Prime Contractor Performance

Contractor is on target in all task areas outlined above. Field staff benefited during this quarter from the visit of Dr. Pauline Wynter, TR&D home office project manager (March 27-April 6). A number of contract issues were clarified with USAID. Dr. Richard Swanson, monitoring and evaluation advisor and chief of party, left on R&R (May 22– July 11).

4.1.1. Park Planning and Ecotourism

Following discussion with its board of directors April 27, ANGAP has formally declared its desire for the South African Parks Board to be the principal source of technical assistance and guidance in its evolution toward becoming the Madagascar Parks Service. The Arkansas Parks Service has been requested to support this process particularly in the area of environmental education and interpretation. Over the next months, it is important for the TR&D team to work closely with ANGAP and its other institutional partners (PACT grants management unit, World Wide Fund for Nature, Conservation International, CARE, Vita, etc.) to jointly coordinate all activities concerning park planning, park management, and ecotourism development. Unilateral activities by field operators in this area without management coordination within ANGAP's objective of becoming a parks system must be discouraged as counterproductive. Because South Africa is weak in the "people and parks" side of this initiative, current integrated conservation and development program efforts seeking to involve peripheral zone communities around parks and reserves must be strongly supported. Efforts must also be made to learn more from a number of east African countries with people-parks experience (i.e., Campfire program). The International Union for the Conservation of Nature and Natural Resources (IUCN) for eastern and southern Africa might be a long-term relationship worth developing.

In the arrangement currently agreed upon with the Parks Board, TR&D will support the travel and per diem costs for Parks Board personnel to provide the needed short-term technical assistance support to the Madagascar protected area program over the coming year, while the salary portion of this assistance will be a contribution on the part of the Parks Board to Madagascar's program.

4.1.2. Program Sustainability

ANGAP has become sufficiently mature over the past three years to begin to become genuinely concerned about the sustainability issue—its own long-term existence. The idea that conservation “must begin to pay for itself” has been considered and plans made to do something about this. While donors readily admit that ANGAP must seek means of sustainability, the options they seem prepared to consider for ANGAP are not those which ANGAP’s professional park advisors (South Africa, Arkansas, Canada) recommend. Advisors have pointed out that there are two major areas for the kind of significant revenue generation needed to sustain a parks system— (1) revenue from tourist accomodation, and sales of products; and (2) a trust fund. Park entrance fees will always represent only a very small part of the revenue needed, and half of these are returned to local communities. A major issue here is park service management (even on a very limited scale, initially) of income producing tourist accommodations in service zones at the edges of parks and reserves.

Current efforts to initiate a trust fund to cover some of the system’s operating costs in the future are an important move in the right direction. Finally, the belief that the support of the local population is essential for long-term sustainability and that these people must benefit economically from a park or reserve’s existence is firmly held by everyone within the protected area program.

4.1.3. Natural Resources Management

The two-person consultancy completed this quarter in one of the critical areas of the Zahamena integrated conservation and development program initiated what many believe to be the process needed in Madagascar if local communities are ever to begin to approach their natural resources in a sustainable manner. Mario Gauthier (social forester, TR&D) and Nadia Rabesahala Horning (social scientist, ARD) worked together with two Malagasy colleagues for nine weeks in very difficult field conditions to develop a methodology that could lead to developing a contract concession type of agreement between the target communities and the government about limiting open access to land and resources, given negotiated and agreed upon resources uses.

4.1.4. Monitoring and Evaluation

Over one year has passed since the initiation of a monitoring system for the protected area program. This system, while developed in collaboraton with SAVEM operators, was essentially inserted into the program activities of the integrated conservation and development program operators at midpoint in their program development phase. Prior to this, no one had attempted to develop base line information for program impact monitoring—as required by the USAID principal donor. Results of the implementation of this system have been mixed. Probably the most serious problem is that many operators did not even recruit field staff to lead this activity until this year (1995). Even with staff, a great deal of training has been needed to help this staff focus their efforts and to have the technical skills to do their work. Nor has it been always evident that some operators have given much priority to this activity—sometimes seeing it as an “ANGAP” imposed requirement, and not something they would need for monitoring the progress of their own work. ANGAP’s monitoring and evaluation unit has no authority of any kind to actually see that program monitoring actually takes place in the field, as operators control their own budget.

The October 1994 monitoring and evaluation workshop held at Antsirabe invited all program operators to discuss the system and agree upon the indicators which would be followed. This was accomplished, apparently satisfactorily to most of those attending. The system includes four major information “pillars” upon which to rest, representing four levels of monitoring.

- (1) The first level includes process indicators to monitor the evolution of the field integrated conservation and development program projects and the ANGAP institution, through a series of stages considered by everyone as essential for success.
- (2) The second level includes indicators in a number of key programatic areas, which would gauge the success of each integrated conservation and development program program in managing program activities, in obtaining and processing key information, and in putting into place needed socioeconomic and ecological baseline data needed for evaluating program impact in medium and long term.

- (3) The third level of indicators were output indicators associated with each year's approved annual work plan and the objectives set for the year.
- (4) The fourth level deals with people level impact of program activities and impact on the protected areas themselves through specific ecological variables selected by each program to monitor closely.

It is primarily in the latter, fourth level, where we have experienced the greatest difficulty in seeing the needed field support required for implementation. As time passes by, ANGAP has become increasingly concerned by the seeming nonresponsiveness of some operators, resulting in greater pressure given by ANGAP's department of monitoring and evaluation to see field implementation. This has in turn, in some cases, led to a reaction from some field operators that ANGAP is "pushing too hard," being "too directional," "moving too quickly," etc. Yet, if base line data are not identified until the end of the project, it can not serve much as a way of indicating anything in terms of program impact. These issues will certainly be discussed at the October annual monitoring and evaluation workshop where all operators will once again be given the opportunity to review, with ANGAP, our common need to have a system-level monitoring system for program impact.

4.1.5. Training Budget

It is important to point out that, given current spending levels, it is unlikely that TR&D & ANGAP will spend more than half of the budget \$237,00 for training in 1995. The principal reason for this is that a number of the training opportunities planned for USAID funding (including some short-term technical assistance), have been covered by other donors associated with ANGAP. Plans are under way for reprogramming these funds, following further AID Madagascar discussion on this.

4.2. There was no performance related to buy-ins to be reported.

4.3. Subcontractor Performance

4.3.1. Tropical Forest Management Trust

The performance of the Trust has not only been on target. Activities of particular significance include the following.

4.3.1.1 Geographic Information Systems/ANGAP

After installation, training and pilot activities were completed during February and March 1995 (cf. precedent quarterly report), the ANGAP Geographic Information Systems unit started to collect its basic georeferenced data at national and protected area levels (Ranomafana, Isalo, Masoala, Andohahela, Zahamena, Manongarivo).

A remote sensing training session was held with the support of USGS/EDC to initiate the use of satellite imagery to assess and monitor some items (land use, deforestation, etc.). The Department of Information and Valorization of Biodiversity, the Division of Forestry and integrated conservation and development programs operators staff (Ranomafana and Masoala) participated in this training.

Additional human resources are necessary to move ANGAP Geographic Information Systems toward an efficient "center of production." Since the present priority is data collection, a Geographic Information Systems technician was recruited to digitize and georeferenced database maintenance issues.

4.3.1.2. Georeferenced data sharing

Identified as a major issue, data sharing is usually the most "sensitive," expensive, and time consuming part of the setting of a Geographic Information Systems unit. Thanks to the standards defined by the Department of Information and Valorization of Biodiversity and for the collaboration with some national and international institution, ANGAP now has one of the most coherent georeferenced data set available in Madagascar at a 1 million scale. These data include vegetation, geology, protected area and national forest, roads, rivers, cities, etc. The cooperative approach adopted by the Department of Information and Valorization of Biodiversity made these

data available at a very low cost, almost for free, saving much time and money. The Department of Information and Valorization of Biodiversity exchanged its “know how” in term of georeferenced data management and standardization with georeferenced data of value for ANGAP and the Protected Area Program.

The FTM has accepted that data sold to ANGAP can be shared among all integrated conservation and development program operators since ANGAP’s Department of Information and Valorization of Biodiversity is now the official representative for all integrated conservation and development programs operators and negotiates in their name with FTM. Negotiations are very difficult due to the monopolistic attitude of FTM, however, an agreement should take place soon, the “protected area lobby” being a major client for FTM. The first contract negotiated by the Department of Information and Valorization of Biodiversity is planed to be signed in July and will concern the following integrated conservation and development programs : Zombitse/Vohibasia, Andringitra, Andasibe/Mantadia, Amber Mountain, Marojejy/Anjanaharibe, Andohahela, Ranomafana, Isalo.

4.3.1.3. Pre-GEF scientific workshop (April 10–14)

This workshop represented the second step of the first phase of the Global Environmental Facility-funded MAG/94/G41 project called “Priorities for Biodiversity Conservation” in Madagascar.

The pre-Global Environmental Facility project has three stages:

- Data collection and preparation of working documents (January–March)
- Scientific Workshop to analyze data through Geographic Information Systems techniques (April 10–14)
- Synthesis and production of final documents indicating priority areas for conservation and/or research (May–September)

Almost 80 national and international scientists representing a very broad spectrum of interests (plants, mammals, invertebrates, etc.) attended the workshop. Special emphasis was placed on persons with recent field experience and strong understanding of the present situation in Madagascar.

Using an integrated approach, the workshop focused on synthesizing information generated by Geographic Information Systems/ANGAP under the form of base maps (vegetation, geology, species distribution, hydrography, etc.). The results were then combined into a single country map on which approximately 80 sites recognized as priorities for conservation and/or research were delimited.

Several months are now necessary to capture, check and analyze the huge amount of data/information collected during this workshop. The final documents will be extremely important as they will not only represent an up-to-date assessment and synthesis of Madagascar’s conservation priorities based on current knowledge, but will also constitute a clear consensus developed by a broad range of national and international specialists. There is no doubt that these documents will serve as a reference for discussion, research, field work, etc. for many years to come, and be important in developing the next phase of Madagascar’s Environmental Action Plan.

4.3.1.4. National Monograph

The elaboration of a national monograph on biodiversity was an important recommendation of the 1994 Rio convention. The objectives of this monograph are:

- To contribute to the implementation of UNEP programs relating to protection, conservation and sustainable biodiversity management in Madagascar
- Support Madagascar in assessing the biodiversity situation and the needs for effective conservation
- To evaluate the costs and the financial needs for biodiversity conservation
- To implement a “biodiversity national unit”

It is a remarkable achievement for ANGAP's Department of Information and Valorization of Biodiversity to have been recognized as the "biodiversity national unit" by UNEP. As a result, UNEP has given \$200,000 to ANGAP/Department of Information and Valorization of Biodiversity to carry on a national monograph on biodiversity on 12 months period. The expected results are:

- Definition of the basic needs for conservation and sustainable use of biodiversity
- Cost/benefit analyses relating to these basic needs
- Proposal for an action plan

The project was signed May 8, the first workshop is planned to be held August 7, 1995. The Department of Information and Valorization of Biodiversity already has recruited the project coordinator contractor.

5. Scope of Work

5.1. Over the past quarter the scope of work of the TR&D chief of party has been updated to more accurately reflect the tasks which have been placed upon him in addition to monitoring and evaluation assistance. If a one year position for "director of parks operations" can be established by early 1996, some the additional tasks currently placed upon the COP will be taken away. In the interim, additional monitoring and evaluation support will be needed to support field activities not being met by operator staff. Most of this need may be met through local short-term technical assistance assistance to ANGAP's DSEP.

5.2. Issues with the integrated conservation and development program Process in Madagascar

The SAVEM project of the past few years has helped to highlight a number of fundamental design problems and issues that need to be addressed as thinking takes place for a new phase of the Environmental Action Plan. These issues deal with the two components conservation and development and how they should be interpreted and interrelated.

What kind of "development"? Experience within the monitoring program for integrated conservation and development program projects in Madagascar, including those of SAVEM, have not been particularly successful largely because of ambivalence of some operators and field staff to focus clearly enough on establishing links between proposed development activities and the conservation principal objective, "reduction of pressures." Development operators have been able to justify every kind of development activity imaginable and are able to at least state an indirect link of some kind to conservation objectives. In spite of trying to encourage operators to identify those activities that are more directly linked, however, ANGAP in its coordinator role has had limited success in influencing development operators to a more focused treatment of the "development for conservation" theme. Issues of scale and addressing people-level impact on "reducing pressures" seem to be pushed off into some distant future time. Granted that changing behavior takes much time, and that issues are extremely complex, integrated conservation and development program's operate under the pressure by donors and local populations to produce results in a time frame which is probably unrealistic. Because of general concerns that the level of current integrated conservation and development program funding can not be sustained (by either donors or justified locally in face of needs of other protected areas), ANGAP's concerns about "sustainable" results with focused development seem justified. Experience gained over the past three years certainly does point to several areas for "development" that appear clearly appropriate for integrated conservation and development program focus. These include the following:

- (a) All activities leading to ecotourism service development both within a park and reserve and within the peripheral zones and regions with parks and reserves.
- (b) All activities dealing with the microprojects coming from the 50 percent revenue generated by tourist entrance fees. This money is sustainable.
- (c) All activities which can be considered as "environmental education" among populations both within the peripheral zones and the larger regions near various parks and reserves, as well as at the national level.

What kind of "conservation"? If one is to review the experience of the past five years in Madagascar's integrated conservation and development programs and ask "how have integrated conservation and development programs actually interpreted their conservation mandate?" we learn that most, if not all, have largely seen this as park delimitation efforts, park boundary patrolling, and conservation research. There has been an almost total lack of serious park planning and management strategies—something one would have thought to have been a first step in this process. By the end of 1994, no integrated conservation and development program operator had yet developed a comprehensive park management plan. With the exception of Ranomafana, not one protected area operator had included any long-term professional park management and planning specialists as principal advisors for the conservation component of respective programs. Ecotourism development, park infrastructure and trails, and local guide services were poorly addressed. This situation led ANGAP in late 1994, with TR&D support, to become more directly active in this situation, a situation whose resolution is considered essential if ANGAP is to gain the credibility needed to become a national parks service for Madagascar. It has only been since early 1995 that the program has begun to define the "conservation" component of integrated conservation and development program as "park management." This has set the stage for the involvement of the South African National Parks Board.

B. Administrative Information

Contract Data

1.	Total Value of Contract	\$6,069,175.00
2.	Quarter Expenditures (April - June, 1995)	\$ 267,659.93
3.	Cumulative Expenditures to Date (31 June, 1995)	\$3,774,401.20
4.	Remaining Unexpended Balance	\$2,294,773.80
5.	Percent Unexpended	37.81 percent

Section II: Project Officer's Comments

Section III: Contract Office's Comments

Appendix

Table 1: Short-term technical assistance

Table 2: Training: Programmed and Implemented

TABLE 1: SHORT TERM TECHNICAL ASSISTANCE

March 31, 1995

Total STTA in contract = 40 pm.

DUTIES	# of Weeks Prog.	# of Weeks Used	Dates Planned	SOV Done?	Mission Clearance?	Date Arrived	Date Departed	Date Draft	Date Final	Trans ?	Budgeted	Actual Cost	Balance	Name
1994														
Ecotourism Training	5		July 8-Aug.13	Y	Y	July 8	Aug.13	Aug.12	Sept.10	Y	5400	12249	-3649	James MacGreggor
Communication Training	3		May 22-June 12	Y	Y	May 27	June 12	June 10	Aug.15	Y	5040	5248	-208	Mary Leeds
Intellectual Property Rights/Biodiversity	2		Aug.14-Sept.3	Y	Y	Aug. 14	Sept.3	Sept.	Oct.15	Y	5040	5557	-527	Marianne Guerin McManus
Park Management (Systems Level)	4		Nov./Dec.	Y	Y	Nov. 8	Dec. 15	Dec. 15	Dec. 23	Y	10080	8578	1504	Ambrose Cloutier (Systems)
Park Management/Planning (Systems Level) Added from SAfrica	1		Nov./Dec	Y	Y	Dec.4	Dec. 7	Dec. 15	Dec. 23	Y	1000	800	400	Robinson
Trust Follow-ups in WOC (World Bank, USAID)(Pauline Wynier)	1		3/4 Quarter	Y	Y						1680	2849	-968	Pauline Wynier
TOTAL:	19										31920	34889	-2968	
1995														
PA/PZ Concessions Study (study entrance fees)	8		2nd Quarter								13440	4228	9214	Orgerys
Park Management (Systems Level)	5		2/3rd Quarter								8400		8400	
Park Management (Park Level)	8	7	1/2 Quarters	Y	Y	Feb. 14	March 31	March 28			13440	8885	4475	Jay Miller, Arkansas State Park System
Peripheral Zone Term/Ecotourism Planning	4		3rd Quarter								8720		8720	
Ecotourism	12	7	1st Quarter	Y	Y	Feb. 14	March 31	March 28			20180	14235	5925	James MacGreggor (third visit)
Sustainable Rainfed Agriculture	9		1/2 Quarters	Y							15120		15120	
Aerial Photography Consultant (M&E)(LT Indicators)(LH-E:FP)(S PW)	10		2nd Quarter								16800		16800	
Sustainable Harvesting of PA Natural Resources (Commubased contracts)	16		1st Quarter	Y							26880	6797	20083	Mario Gauthier + 2 Malagasy (Ory, Benjamin)
Trust Follow-ups in WOC (World Bank, USAID)	1	1	2nd. Quarter	Y							1680	3896	-2218	Pauline Wynier
Bio-Diversity Classification (Ethnoscience, Folk Class.)(M&E)	7		Nov/Dec								11760		11760	
Platinum training in accounting	1		4th Quarter								1680		1680	
ANGAP Permanentization (Local Commercial Marketing-Public.)(LH)(12 PW)	4		4th Quarter								8720		8720	Catalina's Posters, Videos, Pamphlets, etc.
Elizabeth Woodwell (Calendar 1998-7)			2nd Quarter	Y	Y	May	June			Y		3577		
Suzanne Jeanne Lucie -4 PA Pamphlets			2nd Quarter	Y	Y	May	June					2000		
Protected Area Assessment (Level 2 Areas)(120 PD,LH)(24 PW)	8		4/1 Quarters	Y							13440		13440	
TOTAL/USED:	83	15								Estimated Total:	156240	40819	112821	
1994														
Park Management (Systems Level)	4		1/2 Quarters										13440	
Park Management/Planning (Park Level)	8		1/2 Quarters								10080		10080	
Ecotourism	6		1/2 Quarters								13440		13440	
Aerial Photo Monitoring (JH exp)	6		3/4 Quarters								20180		20180	
Not Yet Planned	12		TBD										0	
	36										63540		63540	
STTA, International \$280/day plus PD														
STTA, Local \$100/day (all exp.)														
Man Weeks are calculated at \$280/day * 8 days/week or \$2,180/month														
Man Weeks for STTA for experts and local consultants are combined in table (local 1/3 of expertise)														
										ESTIMATED GRAND TOTAL	252000			

TABLE 3: Training & workshops supported by TRAD, Year 1995

DATE: 14 Jul 96

Depart	Topic	Dates	Dates held	# of Participants	# of Days	Person/ Days Training	Lead Trainers/Firm	Intended for Whom	Total Budgeted	Total Spent Obligated	Balance on 31	
DSEP	M&E Third Stage Visits (Sampling, Questionnaire Preparation Training and M&E	1 & 2 Quarter							1,000		1,000	
	1- Ranomafana						DSEP	CTP, DIRNAT personnel surv-evaluation				
	2- Amber Mountain Complex						DSEP	CTP, DIRNAT personnel surv-evaluation				
	3- Masoala						DSEP	CTP, DIRNAT personnel surv-evaluation				
	4- Andasibe						DSEP	CTP, DIRNAT personnel surv-evaluation				
	5- Andohahelo						DSEP	CTP, DIRNAT personnel surv-evaluation				
	M&E Fourth Stage Visits (Data Analysis)	3rd Quarter							1,500		1,500	
	1- Ranomafana						DSEP	CTP, DIRNAT personnel surv-evaluation				
	2- Andasibe						DSEP	CTP, DIRNAT personnel surv-evaluation				
	3- Zahamena						DSEP	CTP, DIRNAT personnel surv-evaluation				
	4- Andohahelo						DSEP	CTP, DIRNAT personnel surv-evaluation				
	5- Masoala						DSEP	CTP, DIRNAT personnel surv-evaluation				
	6- Amber Mountain Complex						DSEP	CTP, DIRNAT personnel surv-evaluation				
	Annual M&E Workshop (Review indicators, reporting, analysis)	September						DSEP	Operator M&E staff, DIRNATs &/OR CTP/DEF	3,000		3,000
IMPREVU								Imprevu	14,500		14,500	
								Subtotal	28,888		28,888	
DRHC	Agriforestry Training		Oct. 4-7, 1994	7	4	28		Techniciens PCDI	600	309	291	
	Annual DIRNAT/ANGAP/IGM/ICDDP Meeting	June	June 27-30	4	22	88	ANGAP	DIRNAT, DEF/Operateurs/IGM/ICDDP/ICTS/G	8,000	1,267	6,733	
	ANGAP/DEF workshop (team building)	June							2,000		2,000	
	Trainers Training	June							3,000	250	2,750	
	Management workshop (Ressources humaines, marketing, communic	September					Univ. of Pittsburgh	ICDDP DIRNATs, ANGAP	10,000		10,000	
	Staff retreat (senior staff-10 & Office Staff-15)	July					DG	ANGAP Senior staff	5,000		5,000	
	Senior staff strategic Retreat	February	01/30, 31 & 02/01	20	3	60	DG	ANGAP Senior staff, chefs de cellule	2,000	909	1,091	
	Divers Imprevu								23,000		21,232	
	- Classe verte		April 9 & Sept.	5	1	5	Saint-Joseph, CCIV	Writers of School		749		
	- Atelier DTCE in Foupouite		March 14-17	1	4	4	Jacky	Meeting w/ ONE & Environment Ministry		73		
	- Formation Ecotourism Bemaraha		April 8,9	1	2	2	Hery Zo	Working w/ Operator & Local authorities		22		
	- Workshop: Participation de la Population dans les PCDI (Antsirabe)		May, 17-18	2	2	4	Jacky/Hery Zo	Local Populations PCDI		206		
	- Report reproduction									306		
									Subtotal	51,519	8370	43,149
DAF	Formation du personnel gestion des stocks, recyclage compatible							Personnel DAF et DRHC (3)	2,500		2,500	
									Subtotal	2,500	2,500	

DIVB	Activities/Sum Ecologique	August				DIVB/DSEP	Selected ICPD operator staff/DEF/ANGAP	3,000	343	2,567	
	Ateliers/GISRS (3 ateliers)				25	DIVB	Selected ICPD operator staff/DEF	4,600		4,600	
	Ateliers Divers/Improvu (normalisation, droits propriete)				50	DIVB	ICDP/DEF/ANGAP	4,500		4,500	
	Formations (GISRS)				12	DIVB	Operateurs/DEF/ANGAP	4,500		4,500	
	Formation Photoc	Febr 27 -Mar 3		10	5	50	DIVB/CFSGE	3,000	632	2,188	
	Formation GPS	Jan 23-27		9	5	45	DIVB/CFSIGE	3,000	759	2,201	
	Formation collecte dinfo			12			DIVB	Operateurs/DEF/ANGAP	3,000	3,000	
	Formation Divers/Improvu			6			DIVB	Operateurs/DEF/ANGAP	1,500	1,500	
	Locale GISRS			6			DIVB	DIVB staff	2,000	2,000	
	Locale Maintenance info						DIVB	DIVB staff	1,500	1,500	
	Locale Divers/Improvu						DIVB	DIVB staff	1,000	1,000	
	Divers/Improvu						DIVB	DIVB staff	4,500	4,500	
	Exteneur GISRS NEIO Conference & Visit of institutions in Paris	April 24-May 1, 5		2			INBio Conference	Lydia, DEF & Fara, DIVB	25,000	21,872	3,428
	Exteneur Maintenance info						DIVB	DIVB staff	14,000	14,000	
	Exteneur B.D. Biodiversite :						DIVB	DIVB staff	15,000	15,000	
	Exteneur Valorisation Biodiversite						DIVB	DIVB staff	15,000	15,000	
	Exteneur Divers/Improvu							6,000		3,422	
	- Symposium BIOGEOGRAPHY of NYcar			1			Reunions de Biogeographie (Paris)			1,577	
								Subtotal	110,000	25,123	84,877
Park	Workshop on Park Management and Ecotourism								10,000		9,343
	- Workshop Miller & McGregor	March 23		50	1	50	J.McGregor/ANGAP	ANGAP/ICDP/DIRNATs, DEF		867	
ManagPlan &	On-the-job training in ecotourism, marketing, park management	Jan-Dec		70			DRHC/DSEP	ANGAP/ICDP	15,000		12,782
	- Ecotourism	Febr 18-Mar 23		2		10	Jay Miller/McGregor	Minna, Jacky		1,351	
	- Marketing										
Ecotourism	- Park Management - training with J.W.McG	Febr 18-Mar 23		4		39	Jay Miller/McGregor	Managers, Administrators, Park Managers, Guides, Trainers		836	
	- training with Dr. Hill	May 17-18, 19		2	3	5	Dr. Hal Martin	Administrators, Guides		741	
Development	Study Visit to South African Parks							DSEP, 1 DRHC (+7 ICDP reos)	7,500		1,200
	- DG	March 15-25		1	10	10	South African Park	DG		1,000	
	- Charles, Park Manager of ISALO	Jun. 14 - Aug. 19		1	47	47	South African Park	Charles		4,000	
	Formation des guides								10,000		5,459
	1. Beza maholele	January	Febr 6-11	20	5	100	Henry Zo	Guides de Beza		1,067	
	2. Andasibe						Henry Zo	Guides d'Andasibe			
	3. Ranomafana	February	Febr 20-25	20	5	100	Henry Zo	Guides de Ranomafana		1,314	
	4. Isalo	April					Henry Zo	Guides d'Isalo			
	5. Montagne d'Ambre	October					Henry Zo	Guides de la Montagne d'Ambre			
	6. Morondava						Henry Zo	Guides de Morondava			
	7. Masoala	March	March 6-12	20	5	130	Henry Zo	Guides de Masoala		669	
	Divers/Improvu						CG/DR-C/DSEP		10,500		10,500
								Subtotal	53,000	13,455	39,545
								Subtotal	\$237,000	\$46,948	\$190,052



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