

**DEVELOPMENT OF ENVIRONMENTAL MANAGEMENT ORGANIZATIONS
PARC II COMPONENT - PROJECT PAPER SUPPLEMENT**

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LIST OF ACRONYMS

BJCMNP	Blue and John Crow Mountain National Park
BOJ	Bank of Jamaica
BREPA	Black River Environmental Protection Association
CCA	Caribbean Conservation Association
CDC	Conservation Data Center
CIDA	Canadian International Development Agency
DEMO	Development of Environmental Management Organizations
EAI	Enterprise for the Americas Initiative
EFJ	Environmental Foundation of Jamaica
FSCD	Forestry and Soil Conservation Department
IRF	Island Resources Foundation
IUCN	International Union for the Conservation of Nature
JCDT	Jamaica Conservation and Development Trust
JNHT	Jamaica National Heritage Trust
JNPI	Jamaica National Parks Institute
JTB	Jamaica Tourist Board
LAC	Local Advisory Committee
MBMP	Montego Bay Marine Park
NCRPS	Negril Coral Reef Preservation Society
NEST	National Environmental Societies Trust
NGO	Non-Governmental Organization
NPAC	National Parks Advisory Council
NRCA	Natural Resources Conservation Authority
NRCD	Natural Resources Conservation Division (replaced by NRCA)
OAS	Organization of American States
PARC	Protected Area Resources Conservation Project
PEPA	Portland Environmental Protection Association
PIOJ	Planning Institute of Jamaica
PMU	Project Management Unit
TEPA	Trelawny Environmental Protection Association
TNC	The Nature Conservancy
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
USAID	United States Agency for International Development
UWI	University of the West Indies
WWF	World Wildlife Fund

SUMMARY AND CONCLUSIONS

A. PROJECT SUMMARY

A partnership of Jamaican government and non-governmental organizations, supported by USAID, has just completed a successful three-year pilot project to establish Jamaica's first two national parks. These parks are the nearly 200,000 acre Blue Mountain/John Crow Mountain National Park which opened in February, 1993, and the approximately 3,781 acre Montego Bay Marine Park which opened in July, 1992. Both parks are presently being administered by the Government of Jamaica's (GOJ's) newly-formed Natural Resources Conservation Authority (NRCA), in cooperation with the Jamaica Conservation and Development Trust (JCDDT), a Jamaican NGO, and the Planning Institute of Jamaica (PIOJ). Since March 1993, JCDDT's role has become the central one, as they are now paying most of the parks' salaries from proceeds of a trust fund established through a debt-for-nature swap under PARC.

Now the time has come to take the next step. Jamaica must sustain and expand the national park system. Communities surrounding the existing parks must be developed. Strong ties with the surrounding communities and management activities within park boundaries must be intensified. Two economically and ecologically significant enclaves -- the Black River wetlands and the densely forested Cockpit Country -- stand out as areas requiring urgent protection. NRCA must set up an affordable parks management system to execute this important component of its environmental mandate. To do that, NRCA will need to delegate to the private sector much of the day-to-day management and fundraising responsibility.

This next step has three principal thrusts:

- developing a sustainable park system by privatizing management, and raising private funds to support parks;
- strengthening NRCA's park policymaking and enforcement capacities; and
- expanding the parks system to protect other critical areas.

The most attractive way to accomplish these objectives is for USAID/Jamaica to incorporate a PARC II effort into the \$7.75 million, five year Development of Environmental Management Organizations (DEMO) project which began in September 1992. The Project Paper Supplement (PPS) for PARC II is an addition to the existing Project Paper for the DEMO Project.

DEMO's purpose is to strengthen the capability of public and private environmental organizations in Jamaica to manage the

country's most economically important natural resources. Achievement of this purpose assumes a strong national consensus which combines the best efforts of government, NGOs, and the business community to address environmental problems in target areas

DEMO is already focused on helping two key environmental institutions in Jamaica the NRCA and the National Environmental Societies Trust (NEST), an umbrella NGO. The DEMO Project has three main operational components:

- (1) institutional support to the NRCA;
- (2) institutional support to NEST and to environmental NGOs and community-based associations (CBAs), and
- (3) a focus on four selected areas of environmental concern through "strategic interventions in the environment" (SITE) activities.

This amendment would complete DEMO by adding the fourth component: PARC II. Specifically, PARC II will achieve its objectives by providing.

- Limited support to the parks established under PARC I (Blue and John Crow Mountain National Park and Montego Bay Marine Park) to ensure their sustainability,
- Assistance to open two new national parks by the end of the project -- Black River and Cockpit Country -- and to build up the cadre of national parks professionals, achieving economies of scale in training and management;
- Assistance to the NRCA in the strengthening of its Protected Areas Division to enable it to establish policies and regulations for national parks,
- Assistance to the JCDT to create a Jamaica National Parks Institute to consolidate the management, leadership, training and fundraising for the national parks and protected area system;
- Continued capitalization of the National Parks Trust Fund, principally through additional Debt-for-Nature swaps, targeted donor solicitation, support from the Jamaican business community, and annual contributions from the Government of Jamaica,
- Assistance to carry out buffer zone management activities involving local community participation; and

- Assistance to provide environmental data collection and monitoring activities in and adjacent to protected areas.

B. KEY DESIGN ISSUES

1. Institutional Arrangements.

Discussions between USAID, PIOJ, NRCA and PARC Project staff concluded that the most effective way to bring about the new JNPI is to execute a direct USAID cooperative agreement with the JCDT, allow the JCDT to hire a core staff for the new institute, and enable the JCDT to begin an aggressive second-phase fundraising campaign. This new relationship with JCDT will need to be established in two phases:

- (1) a short-term (about one year) transitional phase wherein the PIOJ would continue to oversee a Project Management Unit that will be responsible to pay for essential costs to maintain the existing parks, to establish the Jamaica National Parks Institute (JNPI), and to negotiate the long term relationship; and
- (2) a long-term cooperative agreement with JCDT to implement PARC II.

Finally, USAID would execute a second cooperative agreement with a US PVO to advise and support JCDT, especially focussed on the fundraising campaign

2. Sustainability

All parties agreed that the JNPI concept is the best approach to creating a sustainable parks system. There is also consensus that this new institute must have time to establish itself and to address the many legal issues and conflicting vested interests which will emerge especially with respect to new parks. Finally, the parties agreed that the GOJ, the JNPI and USAID must be satisfied that there is reasonable prospect of adequate financing for a proposed park before the JNPI would receive its delegation of authority from the NRCA to launch that park.

The financial analysis in Section II F below indicates that, given certain assumptions, the JNPI and local communities could raise enough funds to cover three new parks, as well as the Institute's own costs and those of the two existing parks. The parties have agreed, however, that given the risk that some of those assumptions will not hold, this project will only undertake two new parks at this time. The parties could review that decision in about three years' time, if the assumptions are met.

C. ORGANIZATION OF THE PROJECT PAPER SUPPLEMENT

The Project Paper Supplement contains the basic project description for PARC II, including implementation guidelines and cost estimates, plus four annexes, two of which contain background materials on the socio-economic conditions for the project, a third annex which is the Logical Framework for PARC II, and a fourth on environmental education.

It also reflects and by reference incorporates the rationale and technical analyses which informed and strengthened the original Project Paper for PARC I. These arguments are not replicated in this PPS, and only the economic and social soundness analyses have been up-dated for the PARC II component of DEMO.

D. PROJECT PAPER SUPPLEMENT DESIGN TEAM

This Project Paper Supplement was prepared by the following members of a design team from Island Resources Foundation which was contracted by USAID/Jamaica for this task.

- Dr. Edward L. Towle, Team Leader/Environmental Specialist
- Dr. Oswald P. Blaich, Economist
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working in primary collaboration with the following persons:

- Mr Mark Nolan, PARC Project Officer, USAID
- Mr. Stephen Reeve, DEMO Project Officer, USAID
- Dr. Christopher Brown, Director, Natural Resources and Agricultural Development Office, USAID
- Dr. David Lee, PARC Project Manager
- Dr. David Smith, Executive Director, Jamaica Conservation and Development Trust.

I. BACKGROUND AND PROJECT APPROACH

A. COUNTRY SETTING

The island of Jamaica is blessed with a tremendous variety of tropical forests, wetlands and marine ecosystems. This complex mixture of biotic communities contains some of the most diverse and unique plant species on the planet.

In the past century, agriculture and urban development activities altered Jamaica's landscape. An estimated one-half of the land area is in agricultural production. However, the economy is shifting from rural agricultural subsistence to modern industrial growth, causing rapid urbanization and bringing people to cities and tourism centers.

Jamaica's population is projected to grow from 2.3 to 3.3 million over the next three decades with virtually all of this growth occurring in and around urban areas. This is inevitable since Jamaica's cities and coastal tourism developments are catalysts of economic growth and are major contributors to the output, employment and income of the nation. The unfortunate byproduct of this trend is the serious degradation of environmental systems and natural resources near these growth centers.

It is ironic that the driving variables of this contemporary growth trend in Jamaica, with its burgeoning side effects of environmental pollution, is largely dependent on the harvest of the very "renewables" -- namely, forests, fish, botanicals and tourism (as major foreign exchange earners) -- which are extraordinarily dependent on a high-performance, productive natural resource base, on environmental quality, and even to a degree on the maintenance of Jamaica's remarkable biodiversity.

Given the employment and economic growth imperatives which Jamaica faces, most parks or protected areas will come under considerable pressure from the neighboring population. This component must therefore pay attention to the environmental needs of communities in the general vicinity of target national park sites while emphasizing, as a national public information strategy, the high degree of interdependence among the various components in the human and natural ecosystems.

B. ENVIRONMENTAL ISSUES

The DEMO Project Paper summarizes the critical environmental issues confronting Jamaica. These issues were identified earlier in a background document prepared for USAID in 1991 entitled the "Jamaica Environmental Strategy". The most significant issues discussed in the DEMO PP -- coastal zone degradation, watershed degradation, water pollution, and degradation of habitat. These key environmental concerns guided the resource management

approaches of PARC I and will continue to be addressed under the PARC II component of DEMO.

Coastal Zone Degradation:

The majority of Jamaica's tourism industry is located in coastal areas, and several of these areas have become the focus of recent park planning efforts linked to tourism growth and associated resource management initiatives. Areas to be supported under the PARC II component are Montego Bay and Black River Morass. Coastal zone management efforts in these areas will focus on better management of marine and near shore terrestrial environments and on sustainable development strategies for coastal resources (including the establishment of protected areas and national parks).

Watershed Degradation:

As pointed out in the DEMO PP, all 33 of the designated watersheds in Jamaica are in poor condition, while 19 reportedly require urgent rehabilitation. The unmanaged clearing of land for agricultural production and the ad hoc removal of forest cover for the production of fuel wood, charcoal, and construction materials are key activities contributing to the poor environmental status of Jamaican watersheds. The primary objectives of watershed management and rehabilitation are to apply effective planning and management techniques and to reduce the loss of forest and other vegetative cover. Under PARC II, these objectives are fundamental to the rationale underlying the identification of the two existing national parks (the Blue and John Crow National Park and the Montego Bay Marine Park) and each of the proposed new parks, protected areas and scientific preserves identified in JCDT's "Plan for a System of Protected Areas in Jamaica."

Water Supply and Pollution:

Deforestation, currently estimated at three percent per annum, has had a debilitating effect on the capacity of upland watersheds to provide sufficient quantities of water to meet the growing needs of Jamaica's urban populations and industries. "Water hours" (a form of rationing) are common. Furthermore, a rather large number of Jamaica's water supply sources -- rivers, downstream wetlands, aquifers, estuaries, harbors and expanses of coastal inshore marine waters -- are already seriously contaminated by a variety of pollutants, including erosion-derived sediments, chemicals, pathogens and an excess of organic nutrients.

The full dimensions of this broad Jamaican problem are not well understood or quantified. The systems are basically overloaded. Some are tainted with toxic substances. Others are so damaged or

modified physically that their natural self-cleansing capacity has been virtually destroyed. Until recently, the seriousness of the problem has been down-played, but it is beginning to affect the tourism industry and public health in both downstream rural and more urban coastal communities. In one sense, it results from a failure to apply correct land use planning principles. The PARC II Project is in a position to directly address some aspects of this oversight, not only by establishing new parks, but by assuring that the government designate and manage other lands which are both environmentally and economically significant.

Habitat Degradation:

Documented threats to Jamaica's biodiversity include (1) deforestation, (2) accelerated erosion and soil loss; (3) soil, ground water and coastal pollution; (4) urban sprawl and blight, and (5) excessive wildlife harvesting (including over-fishing). The consequences of these and other administrative failures in resource management place a number of Jamaican locations and species, especially endemic flora and fauna, under threat and at risk of extirpation.

Unfortunately, the problem at hand is really a cluster of problems on the surface, not unlike the diffuse causes of non-point source coastal water pollution. The DEMO Project Paper correctly identifies the root cause as being a set of linked institutional design failures and performance deficiencies, specifically the lack of.

- ◆ adequate public awareness about the importance of environmental problems,
- ◆ sufficient leadership within the government in establishing and promoting clearly defined environmental policies;
- ◆ effective standards, regulations, and guidelines for maintaining a desired environmental quality;
- ◆ reasonable levels of trained personnel and funding to monitor environmental quality concerns; and
- ◆ access to reliable, systematic ecological data to guide planning and decision-making.

Efforts to reverse environmental degradation in Jamaica must begin by directly addressing these institutional problems, and the PARC II component of DEMO is designed to address all of the above identified institutional deficiencies within the framework of the National Parks System. In this context, a park can serve as a constructive catalyst for community change and environmental enhancement.

C. RELATIONSHIP TO COUNTRY STRATEGY

PARC II is an important element of two strategic objectives of USAID/Jamaica's country program. Increased foreign exchange earnings and employment, and improved environmental quality and natural resource protection. The linkage between these two objectives is tourism's dependence on preserving Jamaica's natural beauty, as well as on keeping pollution from diminishing the value of the nation's tourism product. PARC II supports this aim by protecting what will amount to over ten percent of the nation's territory and making it accessible to both Jamaican and foreign visitors. The two largest parks, the Blue Mountain and Cockpit Country, will strive to manage vital watersheds and thereby aid in reducing erosion, siltation and the flow of nutrients into coastal waters where they threaten coral reefs.

There is also a more long-term linkage between the parks and Jamaica's ability to generate foreign exchange and employment. The parks will play a critical role in preserving hundreds of unique endemic, as well as rare and threatened species, some of which might be of extraordinary value in the future. PARC II is therefore an investment in preserving Jamaica's natural resource base for its possible future value. In that way, it would help to assure that Jamaica's economic growth is sustainable. PARC II will have a direct and measurable impact on important indicators of this linkage, such as the rate of deforestation on protected lands, numbers of visitors to parks, numbers of environmental enforcement actions, as well as on the number of acres of protected land.

D. INSTITUTIONAL CIRCUMSTANCES

To meet the objectives of PARC I, project designers assisted the Government of Jamaica in defining a long-term approach for putting in place optimal institutional arrangements for the establishment, regulation, support, management, and financing of a system for national parks in Jamaica. At the conclusion of PARC I, most of these institutional arrangements were well-defined and in the process of being implemented. Additional work remains to strengthen park management and to build stronger local and national understanding and political support. Nonetheless, PARC II planners look forward to commitment and support from those institutions that will participate in the second phase of the PARC Project.

The existing institutional and legal framework that will support PARC II is as follows.

Government of Jamaica:

- ◆ *The recent (1991) establishment of the Natural Resources Conservation Authority (NRCA) as the primary agency for*

national environmental management in Jamaica. NRCA is located within the newly-created Ministry of Public Service and the Environment. It has been granted a broad environmental mandate under the Natural Resources Conservation Authority Act. One of NRCA's primary assigned functions is to manage national parks, marine parks, and protected areas.

- ◆ *Creation of the Environmental Foundation of Jamaica through Jamaica's participation in the U S Government's Enterprise for the Americas Initiative.* Through a renegotiation of Jamaica's PL 480 debt to the United States, interest paid (in Jamaican currency) by the GOJ to the U.S will be used to support the EFJ, which in turn could complement the activities for Jamaican parks and protected areas and for the National Parks System.
- ◆ *The continuing role of the Forestry and Soil Conservation Department (FSCD) in enforcing legislation governing forested lands and watersheds, managing forest reserves, and providing technical assistance to the National Parks System.* While the NRCA has primary responsibility to manage the National Parks System, the FSCD will collaborate with NRCA in PARC II and will make a significant contribution, especially in the management of watersheds and forest reserves within the Blue and John Crow Mountains National Park.
- ◆ *The continuing policy, project design and operational oversight role of the Planning Institute of Jamaica (PIOJ) as carried out under PARC I.* During PARC I, the PARC Project Management Unit was located within the PIOJ, but this PMU will be transformed into the Jamaica National Parks Institute by the start of the PARC II component within DEMO. The PIOJ will also have a role to assist the JNPI, the NRCA, and the Jamaica National Parks Trust Fund in seeking external donor funds in support of park-related activities

Non-Governmental Organizations.

- ◆ *The emergence of the Jamaica Conservation and Development Trust (JCDT) as a key private sector organization with core functions designed to promote conservation and protected area management programs in the country.* Established in 1987, the JCDT has more recently played a key role in the implementation of PARC I by:
 - hosting a series of workshops, retreats, and other training exercises related to parks and protected areas;
 - helping to finance and establish the Conservation Data Center (see also below);

- providing technical assistance to support local park trusts and buffer zone projects related to the two pilot parks; and
 - promoting a public awareness program about the national parks system plan.
- ◆ *The selection of the National Environmental Societies Trust (NEST) as the private sector institution targeted for substantial support under USAID's DEMO Project. NEST was formed in 1989 as a national umbrella organization by twelve environmental NGOs, PVOs, and private associations and interest groups in Jamaica. Its network of member organizations includes NGOs located in several of the PARC II target areas. As of January 1993, membership in NEST had grown to include over 30 NGO's and PVO's*

Institutional Framework Carried Forward from PARC I:

- ◆ *The establishment of two national parks, the Blue and John Crow Mountain National Park and the Montego Bay Marine Park. Both parks are functional and staffed, and each has produced a draft management plan. It is also important to note that significant community benefits have derived from the presence of each park, including tangible educational, training, and community development by-products stemming, in part, from the establishment of Local Advisory Committees (LACs) at each park site. Issues unresolved at the conclusion of PARC I were establishment of a user fee framework and development of cooperative agreements for the on-site management and operation of the two parks. Long-term planning to ensure the financial sustainability of each park was also not in place at the conclusion of PARC I.*
- ◆ *The emergence of a small team of committed park professionals during the course of PARC I who, through their involvement with the pilot park sites, have gained practical experience which has longer-term resource management implications for the country. The coordination and monitoring role played by the PMU was one of the key factors contributing to the success of the PARC I Project. One of the challenges of PARC II will be the redefinition of the PMU as the core of the Jamaica National Parks Institute.*
- ◆ *The completion of national park enabling legislation and regulations for the parks system and for the pilot park sites. There will be a continuing need during the PARC II Component to update regulations and issue park declarations as new park sites are brought into the system.*
- ◆ *The preparation of a National Parks System Plan under the aegis of the Jamaica Conservation and Development Trust.*

This plan documents all potential national park sites, prioritizes new sites, and proposes an institutional structure for future implementation of national parks. The plan contains sections on government policy for protected areas development, classification and description of the proposed areas, and management of the proposed system including legislative requirements, institutional roles, selection of proposed areas, and revenue sources and strategies. The plan calls for.

- the separation of policy and regulatory functions from the management and administrative functions and
- the centralization of the day-to-day management and administration of national parks in an NGO that will concentrate all its efforts on this task

The National Parks System Plan was approved in principle by the NRCA Board of Directors in March, 1993.

- ♦ *The establishment at the University of the West Indies of a Conservation Data Center, representing the foundation for a natural resource data collection system for Jamaica. Future institutional arrangements for the CDC and the development of post-PARC financing options are issues which still need to be resolved.*
- ♦ *The launching of a National Parks Trust Fund through a unique Debt-for-Nature Swap, with initial capitalization at J\$12.3 million. If targeted capitalization (J\$80 million) can be secured during PARC II, the Trust Fund will help assure long-term financial sustainability for the established and proposed parks and for the National Parks System as a whole. The Fund was set up and continues to be managed by the Jamaica Conservation and Development Trust.*
- ♦ *The selection of one international NGO -- The Nature Conservancy (TNC) - to provide required technical assistance for PARC I and the continued interest of this well-qualified organization to carry forward with some level of TA during PARC II. During PARC I, TNC assisted with the development of the Parks System Plan and the National Parks Trust Fund, provided institutional development support to the JCOT, assisted with the implementation of the two pilot parks, and played an important role in the establishment of the Conservation Data Center. The Conservancy brings to the PARC Project its considerable experience and technical competence in the establishment, financing, and management of national parks, and in the institutional strengthening of environmental NGO's.*

- ◆ *The selection by USAID of "Improved Environmental Management and Protection" as one of three strategic objectives for FY 1993 to FY 1997* This strategy grew from the 1991 "Jamaica Environmental Strategy" prepared by the AID Mission. The document identified critical environmental issues based on a ranking that reflected how issues affected human health, economic development, monetary costs, and damages to biological systems in the country. As a part of the FY 93-FY 97 strategy, efforts focusing on developing the National Parks System will concentrate on increasing the number of national parks/protected areas and increasing public/private expenditures to ensure a sustainable base for national park development.
- ◆ *The approval of a major five-year environmental initiative by USAID in Jamaica through implementation of the Development of Environmental Management Organizations (DEMO) Project, of which PARC II is a major component.* The DEMO Project will support the evolution of two key nascent organizations -- the Natural Resources Conservation Authority (NRCA) and the National Environmental Societies Trust (NEST), an umbrella group for local NGOs. As part of DEMO, PARC II will be a beneficiary of both initiatives.

E. PARC I: LESSONS LEARNED

An evaluation of the PARC I Project was performed by the Island Resources Foundation in the summer of 1992. The results of the evaluation indicated that the Project was successful and that the primary objectives had been met. Major accomplishments were tied to the two pilot park sites, and these have produced significant community benefits, institutional changes, and tangible educational, training, and community development by-products. The key PARCI lessons that contribute to the design of the PARC II Component are:

1. The Blue and John Crow Mountain National Park and the Montego Bay Marine Park represent significant progress towards national parks establishment, however, the work is not complete. Support for the parks should be phased out over a one year period for the Montego Bay Marine Park and over a two year period for the Blue and John Crow Mountain National Park. Using the current management framework, PARC II should continue to provide support for some salaries and core operating costs for the two pilot parks.
2. While the Project Management Unit served as an important mechanism for leadership for national parks development, it is not the proper lead for the management of a sustainable national park system. The operational management of the parks should be privatized and monitoring and regulation of

the system should be directed by a strengthened Protected Areas Division of NRCA.

3. Local Advisory Committees have served as important mechanisms for involvement of local communities in park development and, without this support, park management can become alienated from local residents
4. Parks are most effectively implemented by management that is unencumbered by excessive bureaucratic control. In cases where implementing agencies were slow in attending to administrative arrangements, the result was frustration of staff and disillusionment of community residents.
5. The development of user fees for park financing was stifled by the fact that revenue could not have been used for park management.
6. The involvement of NGO's in park design and implementation is critical because they can make significant contributions in support of park management. In addition, they serve critical roles in raising environmental awareness, implementing responsive management, and raising expectations of other parties involved.

F. SOCIO-CULTURAL CONDITIONS

The PARC II component of DEMO will build on the successes of PARC I Project,

- ♦ by focusing on the multiple impacts that PARC II project activities will have on varying local (i.e., site-specific) socio-economic groups,
- ♦ by carefully factoring local issues that may affect park implementation into the development of new parks through Local Advisory Committees,
- ♦ by observing the gender and equity implications of the existing and the proposed national parks, and
- ♦ by taking account of local levels of environmental awareness and private organizational involvement.

These considerations are important not only from a conventional "beneficiaries" perspective, but also in determining who should participate in the development and maintenance of parks and who should be systematically included in the local advisory process at each park site. The beneficiaries described in Annex B vary dramatically from economically vital business enterprises such as hotel and watersports operations to low-income subsistence farmers, fishermen, squatters and traditional vendors. The characteristics of each community vary considerably, and the beneficiaries impacted by the parks will also vary.

There is a long history of multiple employment in Jamaica. For example, small farmers can also be vendors and fishermen, while oftentimes farm workers and farmers are also employed as construction workers. This pattern, which is a response to economic hardship, results in a degree of greater flexibility within the work force and increases the ability of workers to adapt to emerging employment opportunities. This means that there is likely to be a pool of sufficient man-power -- either skilled or trainable -- for jobs in the national park system and in the economic sectors affected by it. As the national park system is developed, new jobs are likely to be created in areas such as park rangers, guides, water sports operators, access point management, and more generally in the growing ecotourism industry. Annex C describes the socio-cultural conditions found in new national park areas proposed for the PARC II component.

G. ECONOMIC CONDITIONS

1. Benefits:

Most national parks programs generate important benefits such as:

- ◆ preserving endemic and rare plant and animal species, some of which could provide extremely valuable uses which we cannot anticipate, such as cures for diseases, industrial chemicals, etc.; and
- ◆ improving water supply and quality, to the extent that the park succeeds in reforesting and protecting watersheds

Jamaica is not unusual in that the various park sites offer these kinds of gains. All the existing and proposed park areas, for example, contain unique or endangered species, and together they represent the full range of ecosystems found on the island. If anything, these benefits are relatively significant in Jamaica's case, because of the large number of endemic species which need protection.

The Blue Mountain Park is particularly important in protecting watersheds. There are at least six major rivers (the Hope, Yallahs, Rio Grande, Swift, Spanish and Wagwater) which have their headwaters in the park's boundaries. The Cockpit Country is also an important area for the Black and Martha Brae rivers. In these areas, preserving the vegetative cover, thereby releasing rain runoff more steadily, results in a steadier and more usable water supply, and reduces erosion and damage caused by flash flooding.

Jamaica is more exceptional, however, in the degree to which its economic well-being and growth prospects are linked to the quality of its environment. Tourism is Jamaica's largest earner of foreign exchange (accounting for US\$764 million, followed by

bauxite at US\$662 million in gross earnings) in 1991. Tourism accounted directly for about three percent of total formal sector employment in 1991 (22,788 in tourism from a total employed force of 907,700), but the indirect effect from the goods it purchases from domestic vendors would increase that percentage substantially (PIOJ, "Economic and Social Survey Jamaica 1991). Although not unique in this regard, Jamaica's economy depends heavily on tourism and this, in turn, is affected by the beauty of the nation's coastal areas as well as the availability and accessibility of remarkable natural inland sites.

These benefits are difficult, and in some cases, impossible, to quantify accurately. For example, it is difficult enough to estimate the economic value of a medical innovation based on a rare plant or animal product, although intuitively, this value could be large. Predicting with any accuracy whether, or how many times, such an event would likely occur with a Jamaican endemic species, is a matter of pure speculation. There is also little doubt that the value of preserving major water supplies and reducing erosion and flash flooding are also impressive

As for the linkage to tourism, the main problem in measuring it is that there is little agreement among economists about exactly how strongly environmental quality affects tourists' travel decisions. One is safe in assuming, though, that to some significant degree, Jamaica's tourism industry could not survive if the country were not known to possess attractive beaches, beautiful mountainsides and exotic flowers and plants.

Furthermore, there is a rapidly growing segment of tourists who are specifically attracted to natural settings and ecological oddities. One of the major contributions that PARC II can make to Jamaican tourism is to provide access to the full range of tourist interests and to assure the quality of the beaches, the reefs, the scenic beauty of the countryside, and the biological diversity is maintained.

Many Jamaicans who are concerned about the future of tourism feel that unless protective actions such as those promised by the project are taken, the full potential of the Jamaican tourist trade will not materialize. In light of the importance of this linkage between tourism and the economy, and its importance to USAID's strategy, Annex B presents a best effort at quantifying some of the costs and benefits of the PARC II effort in this area. It is based on conservative, but necessarily arbitrary assumptions, and is summarized below to give only an indicative impression of the project's relative worth

2. Benefit-Cost Analysis:

For the past ten or more years, income from tourism has increased persistently at a rate of some \$46 million per year. The total is currently approaching \$800 million

The analysis appended to this document suggests that without the protection of PARC II the annual increment of earnings from tourism could decline. A conservative estimate of even 1 percent less each year than the year before will compound the losses so that by 2005 the loss will amount to \$24 million. Instead of tourism earnings increasing by \$46 million in that year they will increase only by \$22 million.

Such losses would have an important impact on the economy, on the number of jobs available, and on government revenues. From an overall point of view, the contribution of PARC II to the Gross Domestic Product would yield a benefit-cost ratio of roughly 4:1 through the period from September 1992 to August 2005. The total economic benefits to Jamaica would be on the order of: \$23 million in GDP saved by having the protection of the national park system throughout the 1993-2005 period; \$12 million of government revenues saved for the same period; and, over 3,600 jobs saved in the same time frame.

There are also some costs that have not been measured and are also not measurable without having substantial baseline and impact studies in these areas as well. Some of the major costs include

- ◆ the costs to farmers, foresters, and fishermen who may have to abandon their traditional methods on lands or waters within the park jurisdiction and are forced to adopt methods with which they are unfamiliar and which are often more costly or less productive; and
- ◆ restricted access to the use of resources in the park which may apply to tour guides, water sports operators, farmers, foresters, fishermen, and others who may need to seek other locations or alternative means of employment. (This is particularly difficult for older persons who are essentially boxed into their current means of making a livelihood and if denied would likely have to accept lower paying endeavors)

In summary, the net benefits of preserving endemic species, protecting vital watersheds, and enhancing Jamaica's tourism industry, together provide a strong argument for making the investment in strengthening and expanding Jamaica's national park system.

H. OTHER DONORS

USAID is clearly the lead donor with respect to Jamaica's national park system. In fact, it is the only foreign donor which has made, or has any plans to make, significant investment in establishing or managing national parks.

There are other donors playing key roles. The Canadian International Development Agency has recently financed the "Trees for Tomorrow" project which is designed to strengthen the management of Jamaica's forest estate on a sustainable basis. The project will assist the GOJ to clarify forest land use policy, define the roles of organizations involved in forest land use and prepare management plans in key watersheds, some of which are located in existing and proposed national parks.

In the future, projects like the Dutch agroforestry project and the Japanese Blue Mountain coffee project will assist people living in the buffer areas surrounding the Blue Mountain Park. The InterAmerican Development Bank (IDB) is interested in financing watershed management projects. The British aid program, the Italian Government and the UN Food and Agriculture Organization are strengthening Jamaica's participation in the Tropical Forestry Action Plan. It is reasonable to expect that as PARC II expands park activity, other donors will find it attractive to make reinforcing contributions to this effort. The JCDT, and its proposed subsidiary the Jamaica National Parks Institute, will include other donors in campaigns for resources to fund the specialized programs and construction efforts needed for the parks.

II. PROJECT AMENDMENT DESCRIPTION

A. GOAL:

The PARC II Component will contribute to the DEMO Project goal of promoting "stable, sustainable and broad-based economic growth" through improved land use planning, pollution control, and sustainable natural resource management; and by promoting a broad, community-based, nation-wide understanding of the interdependencies among environmental quality, system productivity, and human well-being

B. PURPOSE

The DEMO Project's purpose is "to strengthen the capability of public and NGO environmental organizations to manage Jamaica's most economically important natural resources." This amendment contributes to achieving that purpose. It will enhance capabilities of public and private (NGO) environmental institutions to join forces to put in place a system of well-managed national parks supported as far as possible with private funding. PARC II will result in a dramatic increase in the total area protected as national parks.

PARC II will assist the GOJ and interested private agencies through the transition from two pilot parks to a sustainable park system. By the end of the Project, this component will have the following impacts.

- ♦ achievement of financial sustainability by the two pilot parks established under PARC I -- the Blue and John Crow Mountain National Park and the Montego Bay Marine Park,
- ♦ two new national park units (the Cockpit Country and Black River national parks) officially opened and being managed by a non-governmental entity;
- ♦ at least 270,000 acres or approximately 10% of Jamaican land protected as national parks;
- ♦ at least 50 percent of the costs of the national parks being covered by non-public sources,
- ♦ community based organizations actively supporting each park area; and
- ♦ successful enforcement actions against violators of environmental regulations in the national park areas.

C. RELATIONSHIP TO DEMO PROJECT

The PARC II Component will differ from the PARC I Project in several ways. PARC I was aimed at developing a basic national parks framework and gaining practical experience in parks management through two pilot national parks. The National Parks Systems Plan, the National Parks Trust Fund, the Conservation Data Center and the Project Management Unit all contributed to the building of an institutional structure where none existed previously. Similarly, the pilot parks concentrated on establishing management structures including staffing, drafting regulations, defining borders, and opening dialogue with surrounding communities.

By contrast, the PARC II Component will focus on consolidating, deepening and expanding activities begun in PARC I. Management and administrative arrangements for the park system will be addressed through the strengthening of the Protected Areas Division of the NRCA, formation of a Jamaica National Parks Institute, and further building and development of the National Parks Trust Fund and the Conservation Data Center. Management of the existing parks will be intensified through further development of linkages with the community, building on the experience of the Local Advisory Committees, and strengthening of interagency cooperation. PARC I will transform from an externally funded project to becoming an integrated program involving public, private and NGO interests in policy, management and financing of national parks.

The PARC II effort was merged with the DEMO Project because the two initiatives are working towards the same objective of improved environmental management and protection. Given the likely phasing down of development assistance to Jamaica, it also makes sense to scale down the number of management entities that the Mission is responsible for tracking.

By integrating PARC and DEMO, USAID is helping the GOJ to empower the NRCA to protect critical areas. The effort requires close collaboration between the public and private sectors and non-governmental organizations to plan, run and regulate major parks, as well as to designate and protect critical areas across the island.

Another important relationship between PARC II and the rest of DEMO will be their complementarity. While PARC II will put relatively large amounts of resources into intensively protecting four important sites, it will not address the needs of dozens of other environmentally and economically important places. Most notably, it will not be possible for PARC II to undertake the development of national marine parks in Negril and Port Antonio, where the local communities have already begun to organize for that purpose. In Negril, DEMO's SITE component will offer a

channel through which USAID could furnish a limited degree of support to protected areas management. If the Port Antonio area becomes DEMO's third or fourth SITE area, the same process could begin there. Both areas could benefit from technical assistance from the staff involved in the PARC project.

The design team concluded that the initial PARC II focus on the two existing and two new parks and the reliance on the local communities for the protection of the two important coastal areas makes optimum use of the resources of NRCA, JCDT and the new JNPI. Negril and Port Antonio possess much greater potential for local community financial support and political backing than do the Black River and Cockpit Country areas. Furthermore, as discussed in greater detail in the Outputs and Implementation Plan sections below, it is critical to PARC II's success that JNPI not be burdened with laying the groundwork for more than two new parks at the outset.

Other areas of collaboration between DEMO's PARC II and other components include policy formation for national parks and the development of environmental legislation and regulations. In addition, NGO development activities will be a joint focus of both the PARC II and NEST components of DEMO.

D. PROJECT OUTPUTS

The outputs are the tangible and generally measurable achievements of the project which should result in the attainment of the project purpose. The PARC II Project has seven closely related outputs each of which will contribute to the development of a sustainable National Parks System.

Element 1: Existing National Parks:

The primary objective of this element is to transfer management of the existing parks to the Jamaica National Parks Institute (to be created by the JCDT in PARC II's first year). The PMU will have responsibility for day-to-day park management, on behalf of the NRCA, until that authority is officially conferred on the new JNPI. This has already started in PARC I. On March 1, 1993, the National Parks Trust Fund began to disburse funds for salaries of positions funded under the PARC I Project. As the NPTF is still relatively new and not yet sufficiently capitalized, there will need to be a gradual phasing in of its assumption of other costs (i.e., maintenance, special programs, etc.) This is expected to last up to one year for the Montego Bay Marine Park and two years for the Blue and John Crow Mountain National Park. This period will allow for the consolidation of lessons learned, the deepening of ties with the communities, the development of local sources of revenues, and the intensification of management and enforcement.

Support to the Montego Bay Marine Park from USAID funds will continue for only one year from the start of the PARC II Component. USAID funds will be used for some staff (Operations Manager, Rangers, and a Secretary), special operations (science, training, and environmental education programs), and maintenance costs for the boats, vehicles, and equipment. The National Parks Trust Fund in combination with the Montego Bay Marine Park Trust Fund will cover all other costs from the start of the PARC II Component and, after the first year, will assume expenditures for those areas receiving initial support from USAID. The objective is to ensure the sustainability of this park as soon as practicable.

Support for the Blue and John Crow Mountain National Park will be phased out over a two year period as it achieves self-sustainability through its own local trust fund, community contributions, and support provided by the National Park Trust Fund. USAID funds will be used during this two year period for some staff (Assistant Manager, and administrative staff), special operations (science, training, environmental education programs, and boundary marking), office equipment, a visitors center, and vehicle and equipment maintenance. Funding from the NPTF will cover other salaries from PARC I as well as the USAID funded positions after the second year. GOJ funds are expected to assist with special operations programs and some maintenance costs.

Outputs:

- ♦ Management and financial sustainability of the Blue and John Crow Mountain National Park and the Montego Bay Marine Park
- ♦ NGO support for each new park in place.
- ♦ Income-generating capability in place for national parks including user fees, concessions, and licenses, to contribute to cost of park management.

Element 2: New National Parks:

At the commencement of PARC II, the PMU will assume day-to-day management of the two existing parks and the JCDDT will establish the JNPI. During the first year, JCDDT will work with local authorities, community groups and the NRCA to lay the groundwork to establish the two new parks in the Cockpit Country and in Black River. However, the opening of new parks is dependent upon the project's ability to meet the financial sustainability requirements set forth as conditions precedent.

The National Parks Systems Plan, which prioritized the next national parks to be established for Jamaica, emphasized that the Cockpit Country, Black River Morass, and marine areas in Negril

and Port Antonio deserve immediate attention for protection. Due to resource and institutional development limitations, it is only possible for USAID funds to finance new national parks in two of the four areas identified.

The design team evaluated the choice of parks according to four basic criteria: importance to preserving biodiversity, economic significance, degree of effective threat (overall threat balanced against the local community's ability to face it without designating the area as a national park), and degree of community support. These factors are briefly evaluated for the four candidate sites in the chart below. Each park is ranked relative to the others with respect to each criterion, and the rankings summed for a total park score.

Advantages and Disadvantages of Park Sites				
CRITERION	COCKPIT COUNTRY	BLACK RIVER	NEGRIL	PORT ANTONIO
Biodiversity	4	3	2	2
Economic value	2	4	3	2
Effective threat	4	3	2	2
Community support	1	2	4	3
Combined rank	11	12	11	9

In blending all four key considerations, the Black River site seems to be the slight favorite. The Black River Morass is the largest unaltered Amazonian-type swamp forest outside of South America. It has rich wetlands and is close to Jamaica's newest growing tourism area. The Parks System Plan rated it as high priority for both its ecological and economic value. It contains at least 207 species of plants, of which about 22 are rare and 10 endemic to the island. There are 197 species of birds, of which 60 are rare, 14 endemic to Jamaica and 53 are migrant. There are also three endemic fish species and manatees, an endangered species. The degree of threat is high because of the rapid tourism development which is expected in the area. With community support described as "moderate" in the Systems Plan, it presents the mixed picture of an area with relatively few defenders (therefore needing park status protection) but also relatively few sources of community support. On balance, it should be included in the parks system.

The difficulty is in choosing between the Cockpit Country and Negril for the second site. Both have merit for different reasons.

The Cockpit Country is the area with the highest biodiversity, and it contains the watersheds which feed several of Jamaica's

most important rivers (Black River, Martha Brae). It also presents a limited, but still economically significant, tourism potential, particularly for visitors interested in exotic birds and plants. The Cockpit Country was ranked high priority on both ecological and "socio-economic" grounds in the Systems Plan. It contains at least 101 species of plant, some of which are endemic to single hillocks. There are at least 79 species of birds including all of the island's rare birds. It is also an important winter habitat for migratory birds. There are two species of tree frogs and lizards restricted to this area. The rare Jamaican coney may continue to exist in the Cockpit Country. It is seriously threatened by mining, deforestation from farming and human settlements, and wildlife hunting. Unlike Negril and Port Antonio, the Cockpit Country does not have a mobilized constituency yet to advocate protective measures and check the threats. While this means more community mobilization would be needed, it also means that the area's resources could deteriorate significantly in the next four years, were it not included in PARC II.

The Negril morass and marine ecosystems were rated of moderate ecological value, but high socio-economic value by the Systems Plan. The area supports several rare species of plants including the Royal Palm, and the vulnerable (but not endangered) West Indian Tree Duck. Economically, Negril is probably the most significant of the four, given the volume of tourism in the area. The community is also probably the most mobilized of the four, but DEMO's SITE component is already engaged in working with the Negril community, and could provide considerable support (especially if combined with Environment Foundation of Jamaica and Canadian Green Fund grants) to preservation efforts short of a national park there.

The design team recommends that PARC II concentrate on the Black River Morass and Cockpit Country for the next two national parks. Although Negril is arguably as important -- or even more important -- than the Cockpit Country based on its economic ties, DEMO can help address this area through SITE, while it cannot do so for the other two areas.

The two new parks will be established in a phased sequence of activities so as to achieve economies of scale in areas such as training, hiring, procurement, and management supervision. In addition, it will facilitate the rapid development of a cadre of national parks professionals and build momentum for effective management. The project will

- ◆ establish JNPI and delegate to it the task of managing the two existing parks (Blue Mountain and Montego Bay);
- ◆ when JNPI is successfully managing those parks, it will prepare an action plan which will include a financial

sustainability analysis for the new parks;

- ◆ after NRCA approves the action plan, JNPI will move to establish each new park, including preparing a management plan for that park; and
- ◆ when a management plan for each new park is approved, NRCA will delegate the management of that new park to JNPI.

The plans required to start a new park are more fully defined in Section III, "Implementation Arrangements." Progress on fundraising efforts will be monitored over the course of new park implementation, and if short, adjustments may be required in the level of resources devoted to the park.

USAID funds will be used for salaries of park staff (Park Manager, Park Rangers, Outreach Officer, Scientific Officer, and administrative staff), special operations (science, training and environmental education programs, and boundary marking), office equipment, visitors centers, vehicles (pick-up trucks, motorcycles, and boats), radios, and other necessary equipment (buoys, trail signs, tools, etc) NGO funds will be used for some ancillary staff, maintenance costs for vehicles, boats, buoys, and trails, etc., and are expected to increase every year of the project. GOJ funds will be used for some rangers and science officers, and for the provision of suitable buildings to serve as headquarters and recreation facilities for each of the new parks

Outputs:

- ◆ Two new park units added to the existing National Parks System.
- ◆ NGO support for each new park in place.
- ◆ Income-generating capability in place for national parks, including user fees, concessions, and licenses, to contribute to cost of park management.

Element 3. National Parks Policy and Oversight

NRCA is the organization responsible for management of the system of National Parks. Guided by the National Parks Advisory Board, NRCA will formulate policies, guidelines and standards for the system, regulate and monitor the operation of all protected areas and coordinate the activities of agencies involved in natural resource management. The Authority will educate the public about environmental and protected areas issues. Training and technical assistance will also be provided by the organization. Finally, NRCA will play a role in financing protected areas and encouraging government investments into the system. As a trustee

of the NPTF, NRCA has the responsibility to procure funds and direct its management and disbursement.

To achieve this the Protected Areas Division of the NRCA will be strengthened through the provision of technical assistance, training and commodities.

Outputs:

- ♦ Mechanism in place for the enforcement of national parks regulations
- ♦ Protected Areas Division in place and fully staffed and equipped.
- ♦ Orders for new parks completed and approved.
- ♦ Policies to guide the implementation and management of all national parks.
- ♦ Instruments of Delegation for four national parks executed.
- ♦ National Parks System Plan approved by Government
- ♦ National Parks Advisory Board established.

Element 4: Financial Sustainability of National Parks

Financial sustainability is the paramount concern for the PARC component of DEMO. The availability of financing for park management costs is probably the most important factor in deciding to add only two new parks during the life of this project.

A fundamental principle of PARC II will be to support a new park only once an acceptable financial sustainability plan is approved. This plan will be an important element of the park action plan which JNPI would submit to NRCA to obtain permission to start a new park. The action plan will contain the basic steps for establishing the national park. It will include a financial plan which will address projected income and expenditure for eight years, outlining income generating capability and revenue collection. The review and approval of the action plan will be done by NRCA. USAID will maintain a strong interest in this step of the process. For that reason, Section III D "Covenants and Conditions Precedent" below includes a condition to the effect that no USAID funding shall be used for a particular new park until USAID, as well as the NRCA, have given approvals to an action plan which includes an acceptable financial sustainability plan.

Since each park presents a unique set of costs and potential

funding sources, a variety of factors will ultimately determine the number and sequencing of new parks. The financial analysis summarized in Section II F. below indicates that most of the parks are likely to cost between \$150,000 and \$300,000 per year to run.

The National Parks Trust Fund set up under PARC I was initially capitalized in a debt-for-nature swap that yielded J\$12 Million, and interest from the fund began to fund park staff salaries on March 1, 1993. As the park system expands, it will be necessary to expand the endowment of this fund to cover additional expenses. It was never intended that the NPTF be the sole source of revenue for national parks. Revenue from local park specific sources such as user fees, concessions, and merchandizing will need to be developed to support individual parks. This should be easier in thriving tourist destinations such as Montego Bay and Negril, and more difficult in terrestrial parks.

This component will contain modestly phased down support for JCDDT to build up the trust fund that ultimately is intended to support all costs for the completed system of National Parks after PARC II. In addition, this component will support the efforts by the JCDDT in continuing national environmental education programs, monitoring programs, development of buffer zone initiatives, local NGO support to contribute to national parks, and for revision of the National Parks Systems Plan. USAID funds will be used for personnel (capital campaign staff, environmental education specialist, and administrative support), office and vehicle maintenance, and for special projects (capital campaign, environmental education, buffer zone development, local NGO support, and systems plan revision). Funding from the JCDDT and the GOJ will also support the special project initiatives.

Outputs

- ◆ National Parks Trust Fund endowed at a level to sustain the two original parks and all new parks set up under this component. Based on the financial analysis below, this is expected to require J\$100 million by 1997 and J\$180 million by 2002.
- ◆ The GOJ should seek to make annual contributions to the National Parks Trust Fund as it is the mechanism to financially sustaining the park system. An amount of not less than J\$5 Million per year is recommended.
- ◆ Local NGO fundraising efforts underway and/or local park trusts in place, as determined for each park site.
- ◆ Development of user fees as a reliable revenue source to cover costs of national parks management.
- ◆ Community buffer zone programs in place.

Element 5: Data Collection and Monitoring:

In order to manage parks effectively, whether for tourism potential or for natural resource asset value, it is important to know the various species which exist, as well as ways in which they affect -- and are affected by -- their surroundings. The Conservation Data Center (CDC) was established to collect, organize and provide the information needed to monitor and manage important biological elements in the new national parks and to help determine further conservation priorities. The computerized database resulting from these activities provides the best and most up-to-date information on Jamaica's rare, endangered, and endemic plants and animals. The database is continuously updated as more information on biota becomes available. Most importantly, the database has been designed to be used; at present over sixty data requests have been processed, not only from government and regulatory agencies but also from NGOs, consultants and students.

The CDC was established at the University of the West Indies during Phase I, but was neither financially independent nor fully integrated into the UWI programs at the end of the Project. While information needs of the expanding park system are defined and the CDC is expected to meet those needs in the second phase of the Project, there is uncertainty as to the CDC's long-term financial sustainability, especially with respect to the data services markets it should serve and the client base (natural resource management agencies, research institutions, private development sector, etc) it should develop.

An early PARC II priority will be to work closely with UWI, JCDDT, NRCA, the Institute of Jamaica, and other interested parties to assess

- ♦ the information needs of the CDC's potential clients,
- ♦ the extent to which these needs could be met by CDC without compromising what has been its principal mission,
- ♦ the extent to which the CDC could reliably expect to receive revenues from provision of an expanded set of data services;
- ♦ the long-term relationship CDC can expect to have within the UWI (or other) institutional setting,
- ♦ the staff development actions necessary to implement alternative strategies; and
- ♦ other organizational development issues.

Out of this effort will grow a business plan that will provide a vision for CDC's future, a strategy for accomplishing agreed objectives and practical actions to be carried out immediately. The review and approval of this plan will be done by the Project Management Committee. USAID will condition future funding of the CDC on acceptability of the plan and on tangible progress toward

assuring that the CDC can sustain itself beyond the end of the Project

Outputs:

- ◆ Environmental baseline studies for all parks financed under this Project;
- ◆ Environmental monitoring program operational in all parks;
- ◆ Acceptable business plan in place, including determination of.
 - program direction for CDC (purposes, end products and success criteria) based on inputs from its board and the key players who can influence the success of its programs;
 - institutional relationships between CDC and UWI, NRCA, the Institute of Jamaica, and other natural resource management agencies, NGOs (including JNPI), and the private sector;
 - a planning and budgeting approach that will enable CDC to attract other clients and donors or design bankable projects, permitting CDC to function effectively with greatly reduced dependence on annual GOJ budget allowances, and
 - a staff development and training plan.

Element 6: Jamaica National Parks Institute:

The central management support entity is critical for the long term development of national parks in Jamaica. This was one of the primary recommendations of the original design team for the PARC I Project, but was not implemented because of the need to study optimal institutional arrangements. The National Parks Systems Plan recommended that these functions be centralized under a private Jamaica National Parks Institute.

This component contains support for the creation of the JNPI which will manage and administer national parks and account for and disburse PARC II component funds. Provision is made for technical assistance in a variety of disciplines, as well as legal support to help establish formal agreements between the government and NGOs, among participating NGOs, and with private sector entities that are to be assessed a user fee to help defray the cost of maintaining the park system. USAID funds will be used for personnel (Executive Director, Deputy Director, Financial Controller, and administrative staff), office equipment, administrative expenses, 1 vehicle plus maintenance, workshops, technical assistance, and legal counsel.

Outputs

- ♦ The Jamaica National Parks Institute operational with a business plan addressing financial sustainability.
- ♦ JNPI fully staffed and equipped.
- ♦ The JNPI managing the two pilot parks, and establishing and managing two new parks.
- ♦ Action and management plans for the two new parks.
- ♦ LACs and NGO park management units in place.

Element 7: Audit and Evaluation:

Audit. During the first year of PARC II, institutional support costs will be done through an operating program grant (OPG) to the Project Management Unit (PMU) at the Planning Institute of Jamaica (PIOJ). This organization has annual recipient-contracted audits and will continue to do so.

Once the Jamaica National Parks Institute (JNPI) is established, an operating program grant will be done with JNPI. The financial and accounting systems of JNPI will be reviewed and, if necessary, strengthened before funds are provided. This entity will also have annual recipient-contracted audits.

The majority of the remaining contracts will be AID-direct. No host country contracts in excess of US\$250,000 are planned. Additional funds are reserved for a non-federal audit to be contracted at the end of the second year, if needed.

Evaluation. Two major strategic reviews of overall project performance are scheduled as an integral part of PARC II. A formal process evaluation will take place during month 24 of the project. The objectives of this evaluation will include, but not limited to: (a) ascertaining the appropriateness of PARC II design toward goal and purpose-level expectations; (b) quantifying PARC II impacts, current and projected, at the purpose level; (c) the impact of the national fundraising strategy and the performance of JCDT and the National Parks Trust Fund, (d) the financial sustainability of JNPI and, in turn, the national park system, and (e) the impact of PARC II on meeting USAID/Jamaica's strategic objectives.

A final impact evaluation is planned at the end of the project. This evaluation will review overall Project performance and make a clear statement of actual Project impact.

Outputs

- ♦ Proper accounting of all project funds
- ♦ Adequate system in place at the JNPI to account for all funds for national parks
- ♦ Systematic evaluation to keep project on-track, incorporate recommendations made, and institutionalize lessons learned.
- ♦ Opportunity to make midterm alterations if necessary based on outcome of evaluation.

E. PROJECT INPUTS

1. Overview:

PARC II funds will be required for the continuation of selected activities started in PARC I, bringing on line two new national parks, support for long term institutional arrangements, and for monitoring, evaluation and auditing requirements. The National Parks Trust Fund, managed by JCDT, commenced operations on March 1, 1993, with assumption of recurrent costs for salaries of park staffs. However, NPTF monies will not be sufficient to cover all operating and capital costs of both park units before 1995. Funds for maintenance and programs are scheduled to decline until income generated by the Trust Fund will be more or less equal to the task of supporting the running costs of parks within the system.

The total cost of the four year PARC II component of the DEMO Project is \$7,194,000. Of this amount, the USAID costs will be \$3,400,000, the GOJ costs will be \$1,949,000 (of which \$884,000 would be budgeted expenses). The costs to be borne by the NGO community will be \$1,844,000. Estimated costs for USAID expenditure during the first year are \$918,000.

2. Funding

USAID grant funding amounting to \$3,400,000 will be authorized in a Project Authorization Amendment to the DEMO Project. Project Agreement Amendments will be used to obligate funds with the Government of Jamaica for all expenditures under the PARC II Component. Funds will be incrementally obligated with an initial obligation of \$918,000 in Fiscal year 1993. All funds requiring Jamaican Dollar expenditures will be earmarked in the form of Project Implementation Letters with the PIOJ in the transition period, and Cooperative Agreements with the JCDT or the JNPI. Funds requiring U.S. Dollar expenditures will be earmarked in the form of Project Implementation Orders. Funds will be committed by a variety of forms depending on the activity. At the beginning of PARC II, funds for all Jamaican dollar expenditures

will be committed in Project Implementation Letters and channelled through the PMU at PIOJ. Once JNPI is established and has accounting and control systems satisfactory to USAID, the functions of the PMU at PIOJ will be transferred to JNPI. Funds requiring U S. Dollar expenditures such as certain types of commodities and technical assistance will be committed in an AID Direct Contract or Grant.

There will be six separate input categories that crosscut the project elements as follows:

1. **Personnel Costs.** includes salaries for park staffs at the new national parks, and salaries of key staff at the Jamaica National Parks Institute.
 - ii. **Programs:** includes core programs at each national park site such as science, environmental education and training programs as well as boundary survey and marking.
 - iii. **Technical Assistance:** includes both local and foreign technical assistance in the development of management plans, trust fund development, establishment of the JNPI, etc
 - iv. **Commodities:** includes four wheel drive vehicles, motorcycles, boats, and office equipment including computers, radios, buoys, signs, etc
 - v. **Training** includes training of professional and ranger staff at each national park site and training of JNPI professional staff.
 - vi. **Construction:** includes construction of visitors' centers, rehabilitation of existing facilities, and interpretive displays.

3. Cost Summary:

The following tables give detailed information on anticipated projects costs and methods of expenditure.

Table 1 gives the summary cost estimate and Financial Plan broken down by inputs and financial sources.

Table 2 shows the total estimated costs by project output and disbursement category

Table 3 shows a detailed estimate of PARC II component expenditures over the life of the component. These figures are broken down by disbursement category and source of funds for each category.

Table 4 shows the basic methods of implementation and financing for the USAID funded activities of the Project. The methods of

financing do not deviate from AID's preferred methods as described in the Payment Verification Policies.

All funds for the PARC II Component will fall under the Global Environment Facility and hence procurement of all goods and services will be global untied. The procurement source and origin codes for the project will be 935.

Table 1 Summary Cost Estimate by Input Category and Financial Source

Major Input Categories	USAID		TOTAL	TOTAL	GOJ		TOTAL	TOTAL
	LC	FX	AID	NGO	In Kind	Cash	GOJ	
Personnel costs	1,015		1,015	1,168		358	358	2,541
Programs	632		632	341	402		402	1,375
Technical Assistance	136	500	732	45	100	27	127	904
Commodities	94	500	594	29		459	459	1,082
Training	90	46	136	0	8		8	144
Construction	160		160	190	520		520	870
Contingency	100	27	131	71	35	40	75	277
Grand Total PARC II Funding	2,227	1,073	3,400	1,844	1,065	884	1,949	7,193
PERCENTAGE TOTAL COST								
	AID	47 27%	NGO	25 64%	GOJ	27 10%		

Table 2 Total Estimated Costs by Project Output and Disbursement Category

	Personnel	Programs	Technical Assistance	Commodities	Training	Construction	Contingency	TOTAL
Existing National Parks	87	91		111	20	80	29	418
New National Parks	268	132		280	62	80	52	874
N P Policy & Oversight			140	71	25			236
N P Sustainability	217	274		45	10		20	566
Data Collection and Monitoring	148		25	36	10			219
Jamaica National Parks Institute	295	135	190	51	10		20	701
Evaluation and Audit			377				9	386
TOTAL	1015	632	732	594	137	160	130	3,400

Note The year-by-year cost estimates for evaluation and audit are itemized separately in Table 3 on page 30f

TABLE 3 ILLUSTRATIVE PROJECT EXPENDITURES
Total Costs By Source of Expenditure (in U S Dollars 000 s)

Input Categories and Units	YEAR 1			YEAR 2			YEAR 3			YEAR 4			TOTAL			GRAND TOTAL	
	AID	NGO	GOJ	AID	NGO	GOJ	AID	NGO	GOJ	AID	NGO	GOJ	AID	NGO	GOJ		
Sec I Existing National Parks																	
A Montego Bay Marine Park																	
Park Staff																	
Park Manager	48pm		17		19			21			23		0	80	0	80	
Operations Manager	48pm	14			15			16			17		14	48	0	62	
Park Rangers (6)	288pm	10	17		27			33			39		10	116	0	126	
Outreach Officer	48pm		10		11			12			13		0	46	0	46	
Science Officer	48pm		14		15			16			18		0	63	0	63	
Admin Ast			7		8			9			10		0	34	0	34	
Secretary	48pm	4			6			7			8		4	21	0	25	
Ancillary Staff			1		1			1			1		0	4	0	4	
Programs																	
Science Program		10		10		21			22			23	10	0	76	86	
Envir Education Program		10	10		21			22			23	10	76	0	86	86	
Administrative		10		3		5			5			5	10	0	18	28	
Construction																	
Visitors Center					50								0	50	0	50	
Headquarters					100	100							0	100	100	200	
Commodities																	
Office Equipment and Supplies		5		10		11			12			13	5	0	46	51	
Vehicles plus maintenance		5		5		6			7			8	5	0	26	31	
Boats plus maintenance		22		10		11			12			13	22	0	46	68	
Radios and maintenance		4		4		5			6			7	4	0	22	26	
Driving Equipment		8		8		9			10			11	8	0	38	46	
Moorings and markers		3		3		4			5			6	3	0	18	21	
Sub-Total Montego Bay Marine Park		105	76	53	0	273	172	0	137	79	0	152	88	105	638	390	1133

TABLE 3 ILLUSTRATIVE PROJECT EXPENDITURES (CONT)
 Total Costs By Source of Expenditure (in U S Dollars 000 s)

Input Categories and Units	YEAR 1			YEAR 2			YEAR 3			YEAR 4			TOTAL		
	AID	NGO	GOJ	AID	NGO	GOJ	AID	NGO	GOJ	AID	NGO	GOJ	AID	NGO	GOJ
B Blue and John Crow Mountain National Park															
Park Staff															
Park Manager 48pm			17		19			21		23			0	80	0
Asst. Manager 48pm	14			15				16		17			29	33	0
Park Rangers (8) 384pm			34		37			41		45			0	157	0
Reserve Rangers (3) 144pm			5		6			7		8			0	26	0
Outreach Officer 48pm			10		11			12		13			0	46	0
Science Officer 48pm			10		11			12		13			0	46	0
Admin Assistant 48pm	5			6				7		8			11	15	0
Secretary/Receptionist 96pm			4		5			6		7			0	22	0
Ancillary Staff 192pm	9			10				8		9			19	17	0
Programs															
Science Program	10		10	5	5	10			20			20	15	5	60
Envir Education Program	10	10		10	10			20		20			20	60	0
Boundary Survey and Marking	10		10	10		10			20			20	20	0	60
Administrative Expenses	3		3	3		3			5			5	6	0	16
Construction & Maintenance															
Visitor Centers	40		40	40		40		20	20		20	20	80	40	120
Commodities															
Office Equipment and Supplies		5		5	6		6		13			14	11	0	38
Vehicles plus maintenance	2	12			13				14			15	25	0	29
Trail bikes and maintenance		4			5				6			7	9	0	13
Radios and maintenance	6	4			5				6			7	9	0	13
Signage		5			5				5			5	10	0	10
Sub-total Blue/John Crow Mtn National P.	131	90	68	133	104	69	0	170	109	0	183	113	264	547	359
Total for Existing National Parks	236	166	121	133	377	241	0	307	188	0	335	199	369	1185	749

TABLE 3 ILLUSTRATIVE PROJECT EXPENDITURES (CONT)
 Total Costs By Source of Expenditure (in U S Dollars 000's)

Input Categories and Units	YEAR 1			YEAR 2			YEAR 3			YEAR 4			TOTAL			
	AID	NGO	GOJ	AID	NGO	GOJ										
Sec II -- New National Parks																
A. Cockpit Country National Park																
Park Staff																
Park Manager	36pm			12			13			14			39	0	0	
Park Rangers (8)	216pm			20	7		22	8		12	12	9	54	12	24	
Outreach Officer	36pm			10			11				12		21	12	0	
Science Officer	36pm				10			11				12	0	0	33	
Admin Assistant	36pm			7			8			9			24	0	0	
Secretary/Receptionist	36pm					8		9				10	0	0	27	
Ancillary Staff						2		3				3	0	0	8	
Programs																
Science Program				6			6			6			18	0	0	
Envir Education Program				5	5	5	5	5	5	5	5	5	15	15	15	
Boundary Survey and Marking				9		9	9		9	9		9	27	0	27	
Administrative Expenses				2			2			2			6	0	0	
Construction																
Visitors Center				40									40	0	0	
Headquarters						150							0	0	150	
Commodities																
Office Equipment and Supplies				5			5			5			15	0	0	
Vehicles plus maintenance	2-4WD			33	8		8	8		8		8	49	0	24	
Motorcycles plus maintena	8			32	8		8	8		8		8	48	0	24	
Radios and maintenance	6			10	1		1	1		1		1	12	0	3	
Trails and markers				14	1		1	1		1		1	16	0	3	
Sub-total Cockpit Country N P		0	0	0	205	5	209	99	5	63	80	29	66	384	39	338

TABLE 3 ILLUSTRATIVE PROJECT EXPENDITURES (CONT)
 Total Costs By Source of Expenditure (in U S Dollars 000's)

Input Categories and Units	YEAR 1			YEAR 2			YEAR 3			YEAR 4			TOTAL		
	AID	NGO	GOJ	AID	NGO	GOJ	AID	NGO	GOJ	AID	NGO	GOJ	AID	NGO	GOJ
B Black River Morass National Park															
Park Staff															
Park Manager 36pm				12			13			14			39	0	0
Park Rangers (6) 216pm				12		7	22		8	12	12	9	46	12	24
Outreach Officer 36pm				10			11				12		21	12	0
Science Officer 36pm						10			11			12	0	0	33
Admin Assistant 36pm				7			8			9			24	0	0
Secretary/Receptionist 36pm						8			9			10	0	0	27
Ancillary Staff						2			3			3	0	0	8
Programs															
Science Program				6			6			6			18	0	0
Envir Education Program				5	5	5	5	5	5	5	5	5	15	15	15
Boundary Survey and Marking				9		9	9		9	9		9	27	0	27
Administrative Expenses				2			2			2			6	0	0
Construction															
Visitors Center				40									40	0	0
Headquarters						150							0	0	150
Commodities															
Office Equipment and Supplies				5			5			5			15	0	0
Boat plus maintenance 1				16			2			3			21	0	0
Vehicle plus maintenance 1-4WD				16		8	8		8	8		8	32	0	24
Motorcycles plus maintena 6				28		8	8		8	8		8	44	0	24
Radios and maintenance 6				10		1	1		1	1		1	12	0	3
Trails and markers				14		1	1		1	1		1	16	0	3
Sub-total Black River Morass N P	0	0	0	192	5	209	101	5	63	83	29	66	376	39	338
Total for New National Parks	0	0	0	397	10	418	200	10	126	163	58	132	760	78	676

TABLE 3 ILLUSTRATIVE PROJECT EXPENDITURES (CONT.)
 Total Costs By Source of Expenditure
 (in U S Dollars 000 s)

Input Categories and Units	YEAR 1			YEAR 2			YEAR 3			YEAR 4			TOTAL			GRAND TOTAL
	AID	NGO	GOJ	AID	NGO	GOJ										
Sec III -- National Parks Policy and Oversight																
Technical Assistance	50		12	40		25	30		40	20		40	140	0	117	257
Training	10		2	5		2	5		2	5		2	25	0	8	33
Computer Equipment	10		3	3		3	3		3	3		3	19	0	12	31
Vehicle	28		4	8		4	8		4	8		4	52	0	16	68
Sub-Total N P Policy/Oversight	98	0	21	56	0	34	46	0	49	36	0	49	236	0	153	389
Sec IV -- National Park Sustainability																
Personnel																
Capital Campaign Manager	22			22	2		15	8		12	13		71	23	0	94
Marketing Specialist	20			20	2		14	9			24		54	35	0	89
Assistant to CC Mngr	5	5		5	5		5	5		5	5		20	20	0	40
Research Assistant	15			15	2		12	7			21		42	30	0	72
Environmental Education Manager	10			10			10						30	0	0	30
Equipment and Supplies																
Vehicle & Maintenance	20			3	3		3	3		3	3		29	9	0	38
Office rent, equipm't and supplies	4			4			4			4			16	0	0	16
Special projects																
Capital Campaign	60	10		50	15		40	25		20	40		170	90	0	260
Education	10	5	10	10	5	10	10	5	10	10	5	10	40	20	40	100
Buffer zone development	7	3	3	7	3	3	7	3	3	7	3	3	28	12	12	52
Local NGO support		3			3			3			3		0	12	0	12
System Development	9	9	9	9	9	9	9	9	9	9	9	9	36	36	36	108
Sub-total N P Sustainability	182	35	22	155	49	22	129	77	22	70	126	22	536	287	88	911
Sec V -- Data Collection and Monitoring																
Business Plan Development	25	5	10										25	5	10	40
Personnel	60	14	10	66	15	11	22	15	63		15	90	148	59	174	381
Equipment and Supplies	14			14			8		8				36	0	24	60
Sub-total Data Collection and Monitoring	99	19	20	80	15	11	30	15	71	0	15	106	209	64	208	481

TABLE 3 ILLUSTRATIVE PROJECT EXPENDITURES (CONT)
 Total Costs By Source of Expenditure (in U S Dollars 000's)

Input Categories and Units	YEAR 1			YEAR 2			YEAR 3			YEAR 4			TOTAL			GRAND TOTAL
	AID	NGO	GOJ	AID	NGO	GOJ										
Sec VI -- Jamaica National Parks Institute																
Personnel																
PMU (Transitional)	47												47	0	0	47
JNPI Director				28			30				32		58	32	0	90
Deputy Director				22				24			26		22	50	0	72
Administrative Ass				14			16			18		48	0	0	0	48
Financial Controller				19			20			26		65	0	0	0	65
Accounting Clerk				7				8			9		7	17	0	24
Secretary (2)				14			16			18		48	0	0	0	48
Operations and administrative expenses	15			20			20			20		75	0	0	0	75
Office Equipment and Supplies	5			5			5			6		21	0	0	0	21
Vehicles (1) & Maintenance	20			10				10			10		30	20	0	50
Retreats and workshops	15			15			15			15		60	0	0	0	60
Technical assistance	50			50			50					150	0	0	0	150
Training	30			30			30			22		112	0	0	0	112
Legal Counsel	10	10		10	10		10	10		10	10	40	40	0	0	80
Sub-total JNPI	192	10	0	244	10	0	212	52	0	135	87	0	783	159	0	942
Sec VII -- Evaluation and Audit																
Evaluation				22						30		52	0	0	0	52
Audit	6			14			6			6		32	0	0	0	32
PSC for Monitoring	70			72			74			77		293	0	0	0	293
Sub-Total Evaluation and Audit	76			108			80			113		377	0	0	0	377

TABLE 3 ILLUSTRATIVE PROJECT EXPENDITURES (CONT)
 Total Costs By Source of Expenditure (in U S Dollars 000 s)

Input Categories and Units	YEAR 1			YEAR 2			YEAR 3			YEAR 4			TOTAL			GRAND
	AID	NGO	GOJ	AID	NGO	GOJ	TOTAL									
SUMMARY OF COSTS																
Total for Existing National Parks	236	166	121	133	377	241	0	307	168	0	335	199	369	1185	749	2303
Total for New National Parks	0	0	0	397	10	418	200	10	128	163	58	132	760	78	676	1514
Total for N P Policy and Oversight	98	0	21	56	0	34	46	0	49	36	0	49	236	0	153	389
Total for N P Sustainability	182	35	22	155	49	22	129	77	22	70	126	22	536	287	88	911
Total for Data Collection and Monitoring	99	19	20	80	15	11	30	15	71	0	15	106	209	64	208	481
Total for Jamaica National Parks Institute	192	10	0	244	10	0	212	52	0	135	87	0	783	159	0	942
Total for Evaluation and Audit	76	0	0	108	0	0	80	0	0	113	0	0	377	0	0	377
Contingency (4%)	35	9	7	47	18	29	28	18	18	21	25	20	131	71	75	277
Grand Total PARC 2 Funding	918	239	191	1220	479	755	725	479	474	538	646	528	3400	1843	1948	7194

Year 1 consists of the period of August 1 1993 to Sept 30 1994 a period of 14 months
 Costs with * will be picked up under the DEMO SITE activities

TABLE 3 – ILLUSTRATIVE PROJECT EXPENDITURES (CONT)

Total Costs By Expenditure and By Year – All Funding Sources (in U S Dollars 000's)

SUMMARY OF COSTS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	TOTAL
Total for Existing National Parks	523	751	495	534	2303
– Montego Bay Marine Park	234	445	216	238	1133
– Blue and John Crow Mtn National Park	289	306	279	296	1170
Total for New National Parks	0	825	336	353	1514
Total for N P Policy and Oversight	119	90	95	85	389
Total for N P Sustainability	239	226	228	218	911
Total for Data Collection and Monitoring	138	106	116	121	481
Total for Jamaica National Parks Institute	202	254	264	222	942
Total for Evaluation and Audit	76	108	80	113	377
Contingency (4%)	52	94	65	66	277
Grand Total PARC 2 Funding	1349	2454	1679	1712	7194

TABLE 4			
METHODS OF IMPLEMENTATION AND FINANCING			
Activity	Implementation	Financing	Amount (000's)
Institutional Support ◆ Salaries ◆ Technical assistance ◆ Operating costs ◆ Construction costs ◆ Commodities ◆ Audits (recipient)	Cooperative Agreement/HC Contract	Advance/Reimbursement	2,190
Training	PIO/Ps - AID	Direct Payment	137
Commodities	PSA or AID Direct	Direct Payment or Letter of Credit	400
Technical Assistance	AID Direct	Direct Payment	447
Audit	AID Direct	Direct Payment	32
Evaluation	AID Direct	Direct Payment	52
Contingency			142
TOTAL			\$3,400

The Jamaica National Parks Trust Fund commenced financing recurrent expenses for salaries of PARC I park staff on March 1, 1993. In addition, effective at the start of PARC II, the NPTF will gradually assume responsibility for other PARC I recurrent costs including all maintenance costs for vehicles and commodities acquired under PARC I. Targeted fundraising campaigns by local park trusts or "Friends of the Parks" are expected to contribute to park financing through the development of user fees, concessions, merchandizing and other revenue generating ventures. Additional support for special projects and supplemental environmental and community education activities is possible from the Environmental Foundation of Jamaica (EFJ), from other international donors, and from local NGO-driven fundraising strategies in support of individual parks. Construction costs in the four park sites would also be the subject of GOJ funds both cash and in-kind, and individual fundraising campaigns led, whenever possible, by local NGOs and community groups.

A presentation on how these inputs relate to scheduled project activities and to project outputs is reviewed within the context of the Implementation Plan below. Their chronological sequence over the four year life span of the project is presented in the Implementation Schedule.

F. FINANCIAL ANALYSIS

As noted in the discussion of outputs above, the financial sustainability of the National Parks System is the key issue in determining how many parks Jamaica can afford. This amendment outlines a plan for sustaining the two existing parks and adding two more.

The project's sustainability is primarily a function of the JCDT's, local NGOs' and the NRCA's effectiveness in.

- ♦ establishing an effective JNPI;
- ♦ raising funds from private and foreign donors;
- ♦ maintaining a stream of fee and other penalty revenue from existing parks, and
- ♦ preserving a flow of GOJ funds, albeit a modest one, to support some of the parks' costs.

The financial cash flow model below is based on the following assumptions:

- ♦ a devaluation of the Jamaican dollar of about 15 percent per year,
- ♦ inflation averaging 20 percent,
- ♦ a trust fund yield, of 10 percent, after inflation,
- ♦ the GOJ's willingness to continue budgeting \$50,000 per year each for the JNPI and each park, and
- ♦ the ability of the JNPI to raise a total of J\$180 million for the various trust funds by 1997, and a total of J\$380 million by 2002.

On those assumptions, the model shows that there is adequate funding for up to three new parks. Prudence, and the fact that the approach to using private foundations to manage parks is untried, strongly suggests that new parks be attempted in no more than two locations at first.

Costs:

Salaries form the bulk of costs. For the Blue Mountain Park, construction is also an important factor. For the JNPI, the fundraising support and technical assistance from JCDT is also a major cost item.

In both cases, the analysis separates core from project costs, on

the assumption that each institution could serve its most critical functions without necessarily engaging in various desirable projects until financing has been secured. Sustainability is primarily an issue of covering those core costs.

Revenue:

The key factors affecting revenue are the assumptions one makes concerning the trust funds, the amount one can expect the parks to earn, and finally, the amount other donors can be expected to provide. They are illustrated in the four spreadsheets below.

With respect to the trust funds, the various assumptions are based on interviews with Jamaican and US bankers and economists familiar with trust funds and the performance of the Jamaican financial sector. These assumptions are also listed in the spreadsheets. The essential findings are that, in order to maintain the existing and two proposed national parks, assuming modest donor and earnings flows, it would require a National Parks Trust Fund which would grow from its current J\$18 million to at least J\$100 million by end of project and J\$180 million by the end of 2002.

G. LONG TERM IMPLICATIONS OF THE PROJECT

The JNPI will be fully developed and instituted as the primary operational, administrative and management entity in charge of national parks. The National Parks Trust Fund will be sufficiently endowed to cover all operational costs for all parks established under the PARC II component. Long term funding for the JNPI will be developed and secured through solicitation of funds from the National Parks Trust Fund, the Environmental Foundation of Jamaica, and through targeted donations from the Government of Jamaica and international foundation sources.

The capability of the NRCA to set priorities for, monitor and regulate the National Park System will be strengthened. A synergistic working relationship will be fostered between the NRCA and the JNPI to collaborate on park management.

Perhaps equally significant in the long term is the demonstration effect among the country's environmental community regarding the empowerment of community groups and NGOs as prospective natural resource managers. Secondly, the positive demonstration effects of the PARC-sponsored experimentation with ecotourism will be self-evident, as is suggested in the economic analysis (Annex B)

The establishment of the national parks will provide a resource management system for the areas within the parks. This will lead to conservation and protection of endemic and endangered flora and fauna, ultimately resulting in the protection of biological

diversity. The parks will also preserve many of the desirable aesthetic qualities that already draw more than one million visitors a year, and provide a focus for the blossoming ecotourism industry.

III. IMPLEMENTATION ARRANGEMENTS

A. OVERALL MANAGEMENT PLAN

1. Timeframe:

Illustrative scheduling of key PARC II component events is contained in the Implementation Schedule. The dates are illustrative and may change depending on project events. The schedule describes the relationship between major components and the sequence of actions necessary for efficient implementation. Given the financial sustainability requirements that must be met before new parks are opened, it is likely that the opening of new parks will be sequenced. In such event, the Black River Morass National Park would be the next new park, according to the criteria for new park establishment.

2. Implementation Responsibilities:

This section specifies the operational responsibilities and relationships. A simplified representation of project operations and responsibilities is illustrated in the Organization Flow Chart. This flow chart describes an institutional configuration expected to evolve over the course of PARC II.

a. The Natural Resources Conservation Authority:

The National Parks System Plan (NPSP) approved in principle by NRCA in March, 1993, describes a decentralized National Parks System wherein the NRCA would have overall responsibility for National Parks legislation and enforcement, but could delegate management responsibility for the national park system and of individual national park sites. The Natural Resources Conservation Act places responsibility for overall development, management and enforcement of national parks with the NRCA. The Delegation Instrument to the JCDT for the Jamaica National Parks Institute will assign responsibility for management and administration of the national parks system and for specifically named national parks to the JNPI.

Delegation of the functions for national parks management and administration are permitted under the Natural Resources Conservation Act under Section 4 (h) which states that the Authority may

"do anything or enter into any arrangement which, in the opinion of the Authority, is necessary to ensure the proper performance of its functions",

and Section 6 (1) and (2) which states:

"(1) The Authority may delegate any of its functions under

this Act (other than the power to make regulations) to any member, officer, or agent of the Authority"

"(2) Every delegation under subsection (1) is revocable by the Authority, and the delegation of a function shall not preclude the performance of that function by the Authority"

The NRCA will develop a policy framework to guide the implementation of national parks. This framework will be developed with the assistance of the National Parks Advisory Board, and would include the following elements:

1. identification of the public interests within proposed parks including, but not limited to, timber harvesting, water supplies, mineral extraction, agricultural activities, transportation, wildlife habitat, recreation, community development, etc.
2. Outline of policies for protection of these public interests through the establishment of general guidelines for development of that park, e.g., specifying whether mining would be allowed, ensuring power line right of way and construction, protecting community expansion needs, protecting citizen rights to use on a limited basis the resources of the area, provision for roads, sustainable timber harvesting, as well as other public interests requiring protection by the government.
3. Agreement on how park boundaries would be established.
4. Secure the participation of agencies and organizations whose views should be considered in the management of that area.

This policy framework would be revised periodically by the NRCA and the National Parks Advisory Board as required. It is applicable to the JNPI as well as other groups seeking to manage national parks.

The process for the establishment of any new national parks would be as follows:

An application would be made to NRCA which would contain a schedule of activities that would lead to the development and approval of a management plan for that proposed park. NRCA would prepare guidelines for the management of the proposed park area within the policy framework described above. Once the application is approved, the applicant's staff could be hired, local advisory committees established, and a management plan responding to the policy framework drafted. If, in the development of the management plan, solutions to key issues cannot be accomplished, the NRCA will work with the applicant to

revise the management plan.

A new park will only be approved once an acceptable financial sustainability plan is approved (see Section II.D.4). This plan will be an important element of the park action plan which organizations would submit to NRCA to obtain permission to start a new park.

Approval of the management plan by the NRCA for an individual park would be a condition for permission to manage a national park. Official opening of the area, and formal declaration as a national park would only take place after this approval.

The NRCA plays a major role in the PARC II component through approval of the Delegation Instrument for the JNPI, approval of the structure of the JNPI, membership on the Board of the JNPI, preparation and implementation of park policies, approval of park development schedules, and the seeking of annual GOJ contributions to the National Parks Trust Fund. In these capacities, the NRCA will act to establish overall national parks policy, and serve to resolve issues relating to national park system development as well as individual national park area development.

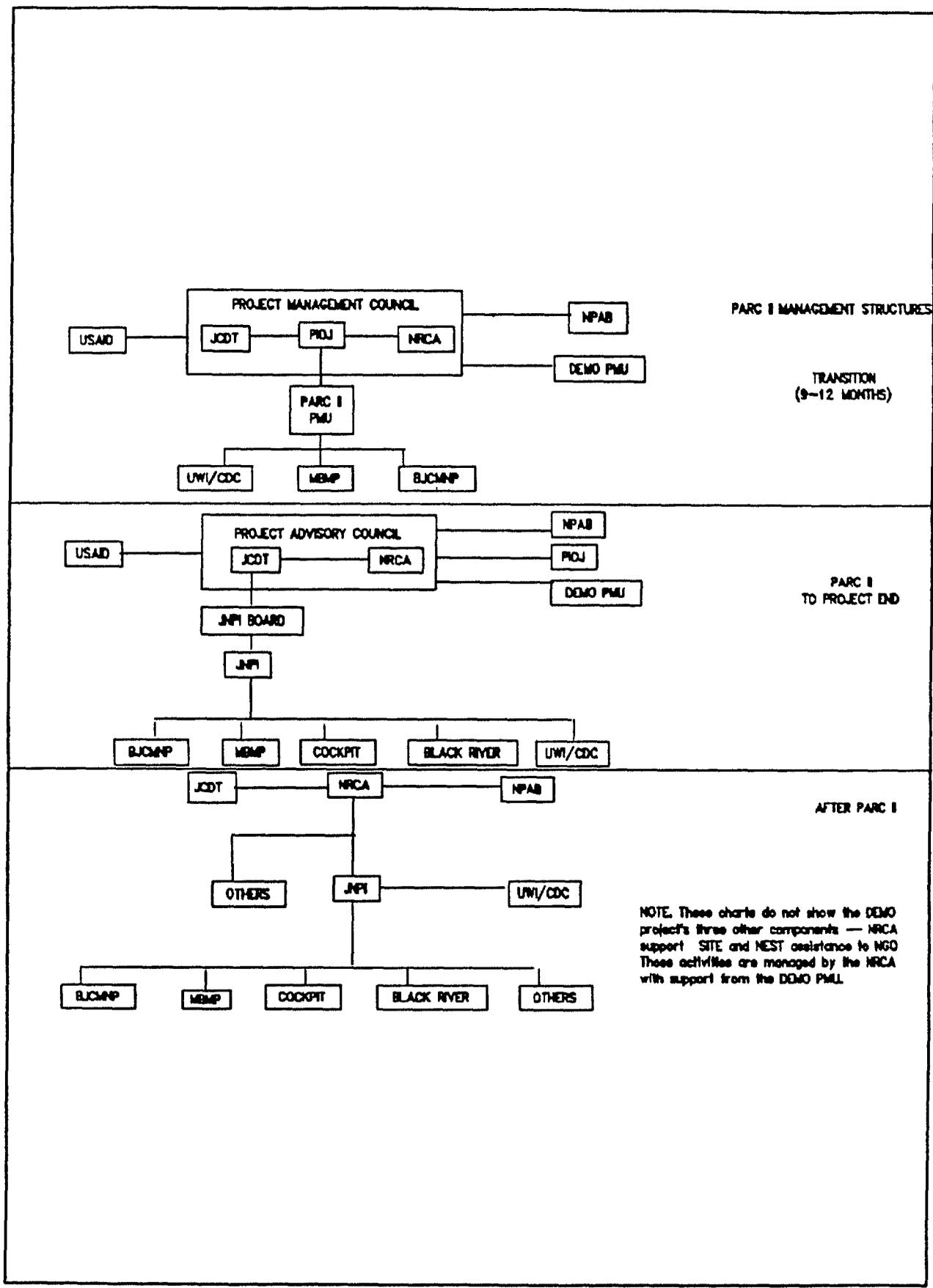
The NRCA participation is expected to be accomplished through the Protected Areas Division which will need to consist of at least two Jamaican professionals. These individuals will work closely with the JNPI.

Key issues that will need to be addressed by the NRCA during PARC II include regulatory enforcement and the drafting of instruments for the licensing of NGOs to manage a park site, lobbying for eventual financial participation of the GOJ through direct contributions to the NPTF, and provision of services to the parks system.

b. Jamaica Conservation and Development Trust:

The Organizational Flow Chart graphically shows how the institutional arrangements at the beginning of PARC II will evolve throughout the course of the project. The JCDT will undertake negotiation of a Delegation Instrument and Memorandum of Understanding with the NRCA to sanction the establishment of the Jamaica National Parks Institute. The JCDT will then be responsible for the legal establishment and initiation of administrative procedures to set up JNPI's offices.

The transition from PARC PMU to JNPI is expected to take place over a 12 month period. During the transition, existing parks will be financed through the National Parks Trust Fund and USAID with project resources and staff administered by the PMU



As time progresses, the JNPI will assume sole responsibility for day-to-day management at the national park sites. The JNPI will be responsible for continuation of PARC I initiatives and for implementation of the management plans for both of the pilot parks established under Phase I. This will involve contracting for additional staff for both existing parks, and the gradual phasing over of maintenance and capital costs to the National Parks Trust Fund.

As developer and custodian of the National Parks Trust Fund, established and capitalized at a little more than J\$16 million in PARC I, JCDDT will have to ensure that the Fund grows fast enough to eventually cover recurring salary costs for all parks under development at the end of the PARC II Component. This will be done through a sustained capital campaign directed at the Jamaican business community, international foundations and other donor resources, and by the generation of income through local park services. The financial analysis in Section II contains an analysis of estimated recurrent cost for the entire national park system, and likely sources of funding.

Possible sources for resource generation to be explored include:

User fees	Concession fees
Visitor center entrance fees	Hotels
Dive and snorkel operators	Cruise ships
Marina fees	Research fees
Boat tours (glass bottom)	Trail fees
Membership dues	Souvenir sales
Entertainment fees (movies, video, etc.)	

The JCDDT will assist local NGOs to support specific national parks. Local park "trusts" will be trained in the solicitation of funds from local sources.

The experience of the PARC I Project has shown that the collection of user fees has been problematic. Given that any fees collected could not have been used for park expenses, there was not enthusiasm about pursuing such sources of funding. The introduction of the JNPI will allow for fees collected to be used at the local level. The JCDDT will play a major role in developing and implementing a strategy for identifying, collecting, investing, and using locally generated funds.

An obstacle to the success of the park system and to garnering public support is the lack of awareness of environmental issues in general and in parks specifically. The JCDDT will therefore promote the value of the system and its relevance to national and community development through a public education program.

JCDDT is expected to play a role in channeling the considerable interest among private sector landowners regarding land

protection measures and developing a small program to explore such interest and lend technical support as appropriate. Private areas abutting existing parks in key buffer zones or as "in-holdings" within protected areas would be of particular interest as would the prospect of developing land protection strategies for such adjacent lands without the costs or difficulty of direct acquisition

c. Jamaica National Parks Institute:

The institutional arrangements described herein are the result of detailed discussions among PARC I implementing agencies, and represent the consensus reached in the National Parks Systems Plan. At the initiation of PARC I, responsibility for the diverse work elements involved in starting up national parks -- essentially a complex set of separate but interlinked field and core activities -- was widely dispersed among a variety of Jamaican statal, parastatal and non-governmental organizations. During the implementation of PARC I, several cooperating partner institutions learned how to work together to capitalize on the combined ingenuity of the group. The PARC I Project Management Unit was instrumental in bringing together and catalyzing the activities of these organizations, in resolving problems and disputes that arose, and providing leadership, efficient administration, and effective coordination for the PARC Project.

The PARC I Project was, however, just a project, and the PMU to implement PARC I was only intended to be a short term measure to expedite project management. One of the primary challenges of the PARC II Component of DEMO is to transform the national parks initiative from "project" status to "program" status. In order to accomplish this, an entity is needed to manage and administer national parks. This entity is to be the Jamaica National Parks Institute, and it will be formed from the nucleus of the PARC I PMU under the auspices of the JCDT.

The JNPI will be an independent, non-profit institute established by the JCDT, and will have a separate Board of Directors that includes permanent representation by the NRCA. Characteristics of Board members of the JNPI include expertise in protected area management, commitment to the environment, involvement with local parks, and financial expertise.

The JNPI will operate under the terms of a Delegation Instrument from the NRCA that assigns to it responsibility for administration and management of national parks. Assets acquired from PARC I funds will be transferred to the JCDT.

The following activities must be satisfactorily accomplished before the PMU can be transferred to the JNPI:

1. An Instrument of Delegation between the NRCA and the JCDT

under the terms of the NRCA Act that would delegate the management of the two existing parks to the JCDT.

2. A Memorandum of Understanding between the NRCA and the JCDT would be signed that specifies the conditions under which the JNPI can be established.
3. The Articles of Association and the Memorandum of Association will be drafted by the JCDT, and the JNPI will be legally registered. The JCDT, as the parent company, appoints the initial Board of Directors
4. The administrative structure will be designed, office space located, staff hired and operations begun.

The JNPI will assume responsibility for establishment of the new national parks in the Cockpit Country and Black River Morass. This will be done under the terms of an action plan for each park approved by the NRCA, and will include community sensitization, establishing Local Advisory Committees, producing management plans acceptable to the NRCA, contracting staff, procuring commodities and establishing community outreach programs.

The JNPI will be staffed by an Executive Director supported by a Deputy Director. The JNPI will be responsible for overall administration of the national parks system, continuation of activities in the Blue and John Crow Mountain National Park and the Montego Bay Marine Park, and activities associated with the establishment of the new national parks. This will involve synthesizing lessons learned from the experience of the first two parks, overseeing park staff, training managers and rangers, and ensuring smooth administration of the parks. These individuals will be supported by a financial controller, accounting clerk, and clerical staff. Recruitment of JNPI staff will be initially from the existing PMU for PARC I Project, as well as Jamaican university graduates with training in natural sciences.

The JNPI will also address park development planning, resolution of differing views on priorities, environmental education initiatives, and policies regarding fees, concession income, and other revenue-generating activities related to the funding of park development and recurrent management costs.

d. Planning Institute of Jamaica:

The PIOJ will be the executing agency for the PARC II Project until the JNPI is established. The PARC I PMU will remain in place and become the PMU for PARC II. It is responsible for procurement of goods and services, and the administration and coordination of the project.

The PMU will form the nucleus of the JNPI and will also perform

the function of park management. It will be assisted by a Project Management Council (PMC) consisting of PIOJ, NRCA and the JCDT. USAID shall act as an observer on this committee. The committee will approve action plans and budgets for PMU operations and will monitor the progress of the project. When the JNPI is formed, the committee will be concerned with advising the JNPI, its overseeing function being assumed by the JNPI's Board of Directors. As such the committee will then be known as the Project Advisory Council (PAC).

The PMU will facilitate the formation of the JNPI and the strengthening of the Protected Areas Division of NRCA by providing resources. Once the JNPI is operational, it will assume the functions of the PMU which will cease to exist.

Over the course of the PARC II component, the PIOJ will assist with the identification, coordination and provision of other outside donor assistance for the NPTF, JNPI, and individual national park sites. The PIOJ will make every effort to include national parks in national planning and budgeting.

e. Other GOJ Institutions:

Department of Forestry and Soil Conservation. The FSCD, as custodians of Jamaica's forest reserves, will be a major contributor to establishing policies for national park implementation. This will include: the application of forestry laws and regulations within forested park areas and private forested protected areas, linkages with the Tropical Forestry Action Plan (TFAP), development of conservation strategies for forests, and definition of complementary objectives with the emerging National Parks System and the JNPI.

The FSCD will provide guidance, technical assistance and personnel to the park system. Although they are not legally responsible for the management of parks, FSCD may manage protected areas through delegation or on behalf of the NRCA. They would also be responsible for protecting and monitoring buffer zones and Forest Reserves that abut national parks. The FSCD will continue enforcing forestry laws.

University of the West Indies. The UWI will continue to house the Conservation Data Center. The CDC will provide resource information services for park system management. At the inception of the PARC II Component, the CDC will prepare a business plan to guide efforts to achieve long-term financial sustainability. It is expected that the CDC will be able to market its services to a wide range of public and private entities.

f. Local Advisory Committees:

The role of the LACs is expected to grow relative to resolving

issues faced by buffer zone communities adjacent to parks. Many questions relative to the LACs have arisen from the experience of PARC I, such as the issue of election vs. appointment of LAC leaders, formal vs. informal proceedings, official vs. unofficial membership lists, officers, and minutes, and decision-making by voting vs. consensus building. Opinions on this subject vary and it is clear that a review of LAC experiences arising out of the two pilot parks and the lessons learned from those areas is needed. A workshop on the subject will be organized by the JCDT during the first year of the project.

Strategies for the Local Advisory Committees to be established during PARC II should build on lessons learned during the development of the two pilot parks. A decentralized approach wherein a deliberate attempt is made to solicit community involvement will help to assure commitment to the development and maintenance of national parks and to supporting environmental goals. While this general approach provides a common methodology, there are such variations from one community site to another that it would be counter-productive to develop a single PARC II design for all.

Despite the need to assure flexibility, there is a risk that citizens in a particular community will fail to link with park management as full partners in development of a particular park site. To minimize that possibility, leadership within LACs should come from within the community, with park management represented in an ex officio role within the LAC and at each LAC meeting. During PARC II some "fine tuning" will be made (1) to improve the effectiveness of the LACs and (2) to appropriately adjust the relationship of LACs with the park management team. The first objective will be reached through implementation of more standardized operational procedures for the management of LACs as informal, yet quasi-institutional groups. The second involves further definition of the role of the park manager vis-a-vis the LACs. Specific recommendations for use or review in a LAC-focussed workshop are contained in ANNEX E.

g. External Capacity Building:

External support in building institutional capacity for the PARC II component will be directly obtained and financed by the USAID. It may include: assistance with the second stage of the Debt-for-Nature Swap and continued support to JCDT and other PARC II NGO partners; assistance with income generation and fund raising strategies for Trust Fund capitalization; assistance with workshops, training activities, environmental monitoring programs, and specialized institutional development needs. In addition, it is expected that assistance will be required to explore new approaches to Trust Fund capitalization, seeking alternatives for further Trust Fund development and direct funding of environmental NGOs engaged in park management.

Other capacity building needs include. (1) services as needed by the JNPI, JCDT, and others to complete and implement the parks system plan; (2) assistance with the development of required management plans for new park units, and (3) guidance with defining and developing a more focused working relationship between CDC and PARC II, aimed at providing improved resource information services for existing and proposed park areas.

The experience of the PARC I project showed that this type of support can best be provided in a cooperative agreement to a PVO/NGO that is dedicated to the task. These types of organizations typically bring to the effort their own resources, and an ability to attract other resources. In addition, they have a commitment to environmental conservation that extends beyond the scope of the project. In this sense the role of the entity providing support becomes more than one of supplying competent individuals, but extends to filling in needed gaps, providing motivation, assisting in external networking, and other tasks. Since this type of assistance may be different in nature and scope than that provided by the Technical Assistance Contractor for the DEMO project, requests for proposals may be solicited directly from capable NGO/PVOs and a cooperative agreement method used. Technical assistance required to strengthen the NRCA's Protected Areas Division and to develop national park policies will be provided by the DEMO technical assistance contractor.

Other U S. Government agencies are expected to play discrete roles during project implementation. The U.S. National Park Service assisted in the training of Jamaican rangers at the St. John's National Park in the U.S. Virgin Islands during PARC I, and this relationship is expected to continue. The U.S. Forest Service began a sister forest relationship between the Blue and John Crow Mountain National Park and the National Forests of North Carolina under the Neo-Tropical Migratory Bird Program. Under similar arrangements, the U.S. Forest Service will provide technical assistance and training to Jamaican project implementors. As the PARC II Component progresses, it is expected that more opportunities for collaboration be available.

h. Non-Governmental Organizations:

The development of NGOs under PARC II is directly related to the development of new park areas. Where feasible, appropriate NGOs (i.e., sufficiently developed organizational entities sharing common goals and program objectives with PARC II) will assume park management or co-management functions under PARC II. Such organizations should be capable of providing multipurpose, on-the-ground administration of park sites. Because they are motivated by local environmental concerns and have roots in the communities they serve, NGOs can play an important role in fulfilling the community outreach objectives of PARC II. This

will be an experimental strategy, however, requiring short-term rather than longer-term institutional arrangements for the provision of management services. Periodic evaluation of the NGOs' accomplishments and service-delivery competence will be carried out under the direction of the JNPI.

i. USAID Project Management:

The USAID Mission to Jamaica will oversee the Project through the Director of the Office of Natural Resources and Agricultural Development. The Director will be supported by the Mission Environmental Advisor/DEMO Project Manager contracted through DEMO Project funds and through 50% time of a Personal Services Contractor (PSC). The PSC will work closely with the JNPI, NRCA, park managers, JCDDT and other PARC II component implementors and will advise the JNPI on financial transactions, USAID procedures and substantive project issues. The PSC will report to the Environmental Advisor/DEMO Project Manager for PARC component responsibilities and the Director will oversee all Project implementation activities. The Director, Environmental Advisor and PSC will work with Mission offices including the Office of Program and Project Development, Controller's Office, and Executive Office. In addition, the USAID DEMO Project Committee will support project implementation.

B. TRAINING PLAN

A training plan and implementation schedule will be prepared collaboratively by parties to the PARC II component during the first six month period under this Supplement. The plan will include specific statements on competencies needed by all key personnel assigned to the national parks; the assessment of where gaps exist in those competencies will be the statement of training needs. The process for carrying this out is described in Annex E on Environmental Education. The plan and schedule will also identify potential training organizations and set out a schedule and cost estimates for completing required training. In those cases where training is to take place outside Jamaica, in the United States or third countries, funding for international travel will be from non-AID sources.

C. PROCUREMENT PLAN

Table 6 contains a general listing of the items to be procured under the PARC II component, the estimated dollar value, the timing when needed, and the agency needing the item. Procurement for items requiring U.S. Dollars and originating from overseas may be performed by the same Technical Assistance Contractor that will be implementing the DEMO Project. Procurement of services, training, shelf items and items denominated in Jamaican Dollars

will be done locally through the responsible implementing agency

All costs associated with the PARC II component of the DEMO project are included as part of the US government's contribution to the Global Environmental Facility (GEF), a program providing grants and low-interest loans to developing countries to help them carry out activities to relieve pressures on global ecosystems. As a project accepted by the GEF, procurement for the PARC II component of the DEMO project will not be "tied" to the US or host-country sources. However, US and Jamaican contractors will be fully eligible to compete for all procurement activities.

TABLE 6			
Procurement List			
ITEM	AMOUNT - US\$	TIMING	AGENCY NEEDING ITEM
Office equipment	83,000	Year 1,2	MBMP, B/JCMNP, CCNP, BRNP, JCDT, JNPI
Boats (2)	40,000	Year 1,2	MBMP, BRNP
Vehicles (6)	108,000	Year 1,2	CCNP (2), BRNP, JCDT, NRCA, JNPI
Rachos (12)	20,000	Year 2	CCNP, BRNP
Dive Equipment	8,000	Year 1	MBMP
Moorings	3,000	Year 1	MBMP
Motorcycles (14)	56,000	Year 2	CCNP, BRNP
Trail signs	28,000	Year 2,3	CCNP, BRNP

D. AUDIT, MONITORING AND EVALUATION PLAN

Audit. At the present time, it is expected that the first year of institutional support costs will be done through an operating program grant (OPG) to the Project Management Unit (PMU) at the Planning Institute of Jamaica (PIOJ). This organization has annual recipient-contracted audits and will continue to do so.

It is expected that an operating program grant will be done with the Jamaica National Parks Institute (JNPI) once the organization is established. The systems will be reviewed and, if necessary, strengthened before funds are provided. This entity will also have annual recipient-contracted audits.

The majority of the remaining contracts will be AID-direct. No host country contracts in excess of US\$250,000 are planned. Additional funds are reserved for a non-federal audit to be contracted at the end of the second year, if needed.

Evaluation. The PARC II Component of DEMO will undergo two evaluations, one at month 24 of the project and a second evaluation at the end of the Project. These evaluations will be carried out by external evaluators, which USAID will contract for and manage directly, and should include both Jamaican and international consultants on the evaluation teams. It will be advantageous to conduct the PARC II evaluations simultaneously with those of the DEMO project, as this would allow the use of the same evaluation team.

These evaluations will provide feedback to the GOJ and USAID on overall progress in achieving the stated objectives of the PARC II component of DEMO. These evaluations will also measure progress of PARC II in meeting two strategic objectives of USAID's/Jamaica's country program. The two strategic objectives are: increased foreign exchange earnings and employment, and improved environmental quality and natural resource protection.

Specifically, the external evaluations will focus on the following items:

1. Establishment and development of national park sites:

[N.B. During the month 24 evaluation, the evaluation team will be measuring progress, particularly at new park sites; during the end of project evaluation, the assessment will focus on satisfactory completion of activities.]

- ◆ Legal declaration and gazetting of boundaries for new parks completed.
- ◆ Boundary surveys completed and borders marked for new land-based parks.
- ◆ Management plans prepared for and operational at all park sites.
- ◆ Local management/advisory committees established and meeting regularly at each park site.
- ◆ Environmental education program activities underway.
- ◆ Visitor and interpretation facilities completed.
- ◆ Procedures established for the participation of local residents in park management including youth, women, small farmers, maroons, fishermen, watersports operators, hoteliers, vendors and others.
- ◆ NGO roles in leadership, fund raising and management defined.
- ◆ Sustainable community buffer zone programs in place.
- ◆ Environmental and resource user baseline studies completed for all parks.
- ◆ Environmental monitoring operational in all parks.
- ◆ Visitor impact assessment and mitigation plan in place for all parks.

2. Development of the National Parks System:

- ◆ National Parks System Plan approved by GOJ.
- ◆ Orders for new parks in place.
- ◆ The Jamaica National Parks Institute operational with a business plan addressing financial sustainability.
- ◆ National park policies established by NRCA.
- ◆ LACs and NGO park management units in place.

3. Development of a Financial Support Framework for the National Parks System:

- ◆ National Parks Trust Fund fully capitalized at J\$100,000,000 by the end of PARC II.
- ◆ Local NGO fundraising programs or local park trusts in place at each park site to help finance operational requirements.

4. In addition to the above benchmarks, which are generally tangible measures of progress, the evaluation taking place during month 48 should focus on several items which are more subjective:

- ◆ assessment of the level and quality of local and national support for the initiatives begun under the PARC Project;
- ◆ assessment of the ability of the various PARC institutional partners to assume full responsibility for project components initiated with USAID support, specifically, the local park management units (NGOs), CDC, NRCA Protected Areas Division, JCDT, and the JNPI.

Monitoring. In addition to the two formal evaluations scheduled under PARC II, a series of monitoring activities will be carried out during the course of the project. The JNPI Director will be required to submit quarterly qualitative updates on all of the project components to USAID. These update reports should summarize progress to date, identify problems, and propose a plan of action for the next quarter to overcome problems identified.

Monitoring activities at the park level will include:

- ◆ monitoring of resident and tourist visitor uses, preferences, practices, and impacts;
- ◆ monitoring of resource extraction within the park;
- ◆ monitoring of levels of pollution, traffic, and other factors affecting park ecosystems, species, and ambience;
- ◆ monitoring of polluted and damaged area recovery including intervention or remedial costs;
- ◆ reporting on local monitoring activities to the NRCA.

[N.B. The JNPI in association with the DEMO Project will conduct a workshop on the design and implementation of local monitoring programs.]

Additionally, an annual, community-based evaluation of park management by each Local Advisory Committee (to be submitted to the JNPI) will be encouraged and supported.

Monitoring activities at the national system level, managed by the JNPI, and coordinated with the NRCA will include:

- ♦ Assembly, analysis, publication and distribution of environmental monitoring data generated by the parks.
- ♦ Annual park environmental audits, indicating ecosystem status and recommending impact mitigation. Special audits would be conducted in the event of a natural disaster or major pollution event affecting a national park.

E. CONDITIONS PRECEDENT AND SPECIAL COVENANTS

Conditions Precedent:

- ♦ Prior to any disbursement or commitment of any PARC II Component funds for a new park, except as required to prepare an action plan for that park, the Grantee will submit to USAID in form and substance satisfactory to USAID:
 1. a financial sustainability plan, including a national fundraising strategy, for the national park system;
 2. evidence of sufficient capitalization to sustain the operations and management of the two existing national parks; and
 3. evidence of acceptable progress toward sufficient capitalization to sustain the new park.
- ♦ Prior to disbursement or commitment of any PARC II Component funds after September 30, 1994, unless as the parties may otherwise agree in writing, the Grantee will provide evidence in form and substance satisfactory to USAID that the JNPI is legally established, staffed and operational, and has been delegated authority from NRCA to manage the Blue and John Crow Mountains and Montego Bay National Parks.
- ♦ Prior to disbursement or commitment of PARC II Component funds to support the Conservation Data Center after March 1, 1994, except as required to meet essential data needs of national park management and, unless as the parties may otherwise agree in writing, the Grantee will provide evidence in form and substance satisfactory to USAID that a strategic financial sustainability plan has been established that demonstrates sufficient sources of capital and revenue to sustain CDC operations after the end of the project, and that the CDC has an executive director in place.

- ◆ Prior to disbursement or commitment of any PARC II Component funds to procure non-expendable property (including boats, vehicles, and radios), the Grantee will provide a commodity use and maintenance plan to USAID in form and substance satisfactory to USAID, for approval.

Special Covenants:

- ◆ The parties agree to establish an evaluation program acceptable to USAID of key project elements, including the JCDT capital campaign and development/management of the trust fund, the establishment of the JNPI, the implementation of business plan objectives of the JNPI and CDC, and the establishment by the NRCA Protected Areas Division of policies to guide the management of all national parks. The program will include evaluation of progress toward attainment of project objectives; evaluation of problem areas or constraints which may inhibit such attainment; assessment of how such information may be used to help overcome such problems; and evaluation of the overall development and conservation impact of these project elements.
- ◆ Before October 1, 1994, the GOJ agrees to authorize JNPI to collect and retain user and concession fees and other revenues associated with the use of park facilities and resources. These fees and other revenues will be used for operating expenses and for contribution to the National Parks Trust Fund. The GOJ also agrees that any other government allocations to JNPI will not be reduced as a result of such retentions.
- ◆ The GOJ will use its best efforts to provide an annual contribution to the National Parks Trust Fund of not less than J\$5 Million in order to assist in achieving long-term sustainability of the national parks system.
- ◆ The GOJ will submit in form and substance acceptable to USAID a detailed time-phased Project schedule, implementation plan, and budget for each year no later than 60 days before the beginning of the GOJ fiscal year.
- ◆ If determined necessary by the USAID Environmental Officer, the Grantee will perform or arrange to have performed an Environmental Assessment prior to commitment of PARC II Component funds for any activity. Project implementation plans will be modified, as appropriate, to incorporate mitigation measures developed under any assessments performed.
- ◆ Participant training elements of the PARC II component will be accomplished in accordance with the policies, procedures, allowances, guidance, reporting requirements and other requirements of AID Handbook 10--Participant Training.