INDEPENDENT EVALUATION OF THE ARPA PROJECT

AMAZON REGION PROTECTED AREAS PHASE 1: 2004 - 2008

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OUTLINE

SECTION A

AN INTRODUCTION TO ARPA

SUMMARY PROJECT DESCRIPTION FOR PHASE 1

The Project Appraisal Document for the Global Environmental Facility Trust (GEF) describes the need for an Amazon Region Protected Areas Project (ARPA) to expand and consolidate the protected area system to sustain Amazonian biodiversity in a significant and representative manner over 12% of the Amazon biome. Building on the formal creation of the National System for Protected Areas (SNUC) in 2000, this project was launched by President Fernando Henrique Cardoso in Decree N° 4326 of August 8, 2002.

The ambitious objectives over a 10-year period (3 Phases) are to strengthen the Brazilian system of protected areas in the Amazon through a 3-part methodology of creation, effective management, and long-term financial sustainability. Specifically this project was designed to meet 4 goals during Phase 1:[1]

1. Create 18 million hectares of new protected areas (9 million hectares of "strict protection" PAs and 9 million hectares of "sustainable use" PAs)
2. Consolidate the management of 7 million hectares of existing "strict protection" PAs and of 9 million hectares of newly created "strict protection" PAs
3. Establish an endowment fund to support the recurrent costs of PAs
4. Establish a biodiversity monitoring and evaluation system at the PA and regional levels

ARPA is a program of the Brazilian government and implemented by the Chico Mendes Institute for Biodiversity Preservation (ICMBio). To accomplish the four goals above, the government has an innovative institutional arrangement that includes a nonprofit – the Brazilian Biodiversity Fund (FUNBIO) to execute the funding and state government partners in areas where there are state protected areas in the program. Technical assistance to build the capacity of the implementing partners was provided primarily by Deutsche Gesellschaftfiir Technische Zusammenarbeit GmbH (GTZ) and WWF-Brasil.

Four major donors contributed approximately US$81 million in Phase 1 of the project: 1) the GEF (Global Environmental Facility); 2) KfW (Kreditanstalt fur Wiederaujbau - German Bank for Development); 3) the Government of Brazil; and 4) WWF-Brasil. This strong commitment from a multilateral agency, a bilateral agency, the host government, and a private nonprofit is a strong indicator of the global importance of ARPA and the willingness to engage many diverse partners in advancing this project.

December 31, 2008 marked the end of Phase 1 for GEF investments albeit other donors are continuing their Phase 1 contributions through mid 2009. This independent evaluation is being conducted at the end of Phase 1 to help review the accomplishments of the ARPA program to date and help guide GEF's support for Phase 2.

[1] World Bank, Project Appraisal Document p 10.

SECTION B

EXECUTIVE SUMMARY

INDEPENDENT EVALUATON OF ARPA PHASE 1

MAJOR FINDINGS

The Amazon Region Protected Areas (ARPA) project is the most innovative and successful project currently strengthening the Brazilian protected area (SNUC) system in the Amazon. During Phase 1 ARPA is working to effectively conserve 32 million hectares of federal and state protected areas. ARPA's institutional partners are working together to ensure that both 'strict protection' and 'sustainable use' Protected Areas or UCs (Unidades de Conservação) are managed successfully for the long term. The results of ARPA Phase 1 (2002-2008) are summarized below: [2]

TABLE B.1: KEY GEF PERFORMANCE INDICATORS FOR ARPA PHASE 1[3]

INDICATOR	ASSESSMENT 12/08
23 ecoregions in the Brazilian Amazon analyzed for identification of new PAs	■ Extensive and participatory priority setting of ecoregions undertaken for identification of new PAs. Led to *Map on Priority Areas to the Conservation, Sustainable Use and Sharing of Benefits from the Brazilian Biodiversity*, established by Presidential Degree #5092 and Administrative Rule of the MMA #126 in May 2004.
18 million hectares of new PAs (9 million hectares of "strict protection" PAs and 9 million hectares of "sustainable use" PAs) created.	■ 43 new UCs created totaling 23,981,642 ha. 13 UCs are in 'strict protection' covering 13,195,911 ha and 30 UCs are in 'sustainable use' covering 10,785,731 ha.
7 million hectares of existing "strict protection" PAs and 3 million hectares of new "strict protection" PAs consolidated and managed.	■ An additional 17 "existing strict protection UCs" totaling 8.5 million ha are being managed under ARPA. None has moved into the "consolidation" phase as of 12/08.
An endowment fund for financial sustainability of existing "strict protection" PAs established and capitalized with a minimum capitalization of US$14.5 million.	■ The Protected Areas Fund in FUNBIO has been established and capitalized with US$23.4 million and with US$37.2 million committed.
Demonstration projects for financial sustainability of PAs	■ Revenue generating pilot projects were dropped and attention shifted to new financial

2 Phase 1 of ARPA was anticipated to run from 2002-2006. Early delays in implementation coupled with promising early results led to an extension through 2008.

3 This list was taken from "Key Performance Indicators" of the GEF Project Appraisal Document. World Bank, PAD p 2.

implemented.	markets. The 3 highest potential mechanisms identified are: Environmental compensation funds; Green lottery; and Carbon transfers for avoided deforestation.
An environmental monitoring methodology for specific PAs defined and implemented.	■ No effective monitoring methodology is in place for ARPA.
Program Committee, Conflict Mediation Committee, and two project coordination units (one in the Ministry of Environment (MMA) and one in the Brazilian Biodiversity Fund (FUNBIO) created and operational	■ Project coordination units are operational in both FUNBIO and the MMA. The Program Committee (CP) has been operational, but has not been convened for the past year during staff transitions in the MMA. Other strategic advisory committees such as the Mediation Committee and Science Panel were never truly launched.

For years there has been a sense that protected areas in the Amazon cannot be effectively managed given their size, extensive logistical complications, and the numerous threats in the area. ***The ARPA program has proven that effective protected area creation and management can indeed happen in the Brazilian Amazon.*** ARPA has shown that protected areas can have a real impact in reducing deforestation and protecting biodiversity as well as the rights of local peoples. This project also showcases that private-public partnerships can break through long-standing bureaucratic and administrative bottlenecks creating the operational capacity to effectively support field staff.

MAJOR ACHIEVEMENTS IN PHASE 1

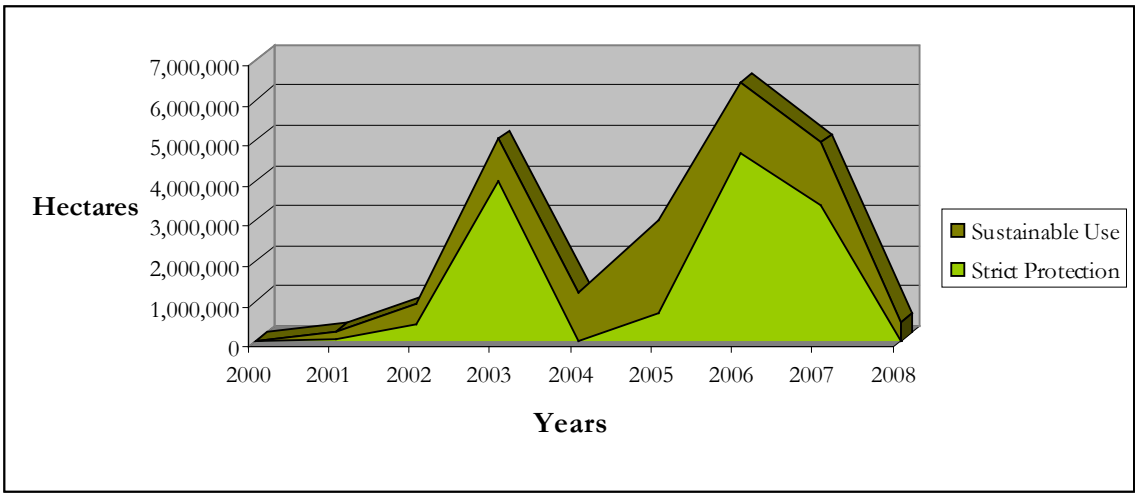
ARPA has surpassed expectations in the majority of Phase 1 benchmarks. It has also earned a number of admirers over the years. As one puts it: "The particular advantage of ARPA is the quality of the product, starting with the protected areas themselves, the coalition of partners that have been enlisted in the ARPA Project, the innovative methods that are being used for funding and management, and the basic allure of this last great frontier."[4]

Successes that deserve particular note include:

1. **23 million hectares of new Protected Areas created.**
   ARPA has surpassed the originally ambitious goal of 18 million ha, creating over 23 million hectares of new protected areas throughout the Amazon. 43 new UCs were created including 13 'strict protection' UCs covering 13,195,911 ha and 30 'sustainable use' UCs covering 10,785,731 ha.

[4] Putney. p 6.

CHART B.1: HECTARES CONSERVED PER YEAR IN ARPA PHASE 1



2. **Institutional public/private partnerships were essential to success.**
   Contributions from an extraordinarily diverse set of institutional partners have been the driver for the success of the ARPA program. From the programmatic leadership of the Ministry of the Environment (MMA) to the strong financial executing role of a nonprofit (FUNBIO), to active engagement from international donors, civil society, state government agencies, and international and domestic technical assistance providers, ARPA has engaged the strengths and commitment of many organizations. While there are clearly numerous day-to-day tensions in communicating and managing a large program among so many partners, the successes could not have been achieved by any one of these institutions operating independently.

3. **Administrative innovations made effective on-the-ground management possible.**
   A number of very impressive internet-based systems have evolved to track protected area management status (SisARPA) and allow partners to track procurement requests and other financial items (CEREBRO). Joining these innovations is the much praised "*conta vinculada*" or "conjoined account" that allows a direct flow of resources from FUNBIO to protected area site managers. This system avoids the problems often inherent in a government bureaucracy while still providing ready accountability and an efficient receipt and documentation system. Given that numerous other Amazonian environmental projects managed by government agencies have been unable to successfully expend funds in a regular and sustained way on site,[5] the *conta vinculada* mechanism has been an essential contribution to ARPA success. In contrast to so many other programs, ***92% of the GEF funds were expended***[6] – in large part thanks to this administrative innovation.

4. **ARPA Trust Fund was created and capitalized.**
   Capitalization of the ARPA Trust Fund has been successful thanks to the commitment of the ARPA major donors and the appeal of an effective endowment for long-term protected area management. To date US$23.4 million has been received from major donors GEF and

[5] This problem was raised in many interviews at the MMA, with interviewees specifically mentioning other GEF funded programs such as Corredores Ecológicos which are having much more difficulty ensuring funds can be expended on site in a reliable and replicable way to provide consistent support to local protected areas.

[6] FUNBIO – private communication February 13, 2009. Final accounts are anticipated to be submitted in April 2009.

WWF-Brasil with US$37.2 million committed. A €10 million donation from KfW is awaiting Brazilian Senate approval to be deposited in the Trust Fund.

MAJOR CHALLENGES IN PHASE 1

A number of challenges arose over the course of ARPA Phase 1 that will need to be surmounted in Phase 2. While more detailed analysis is provided in the full report, critically important challenges are mentioned below.

1) **The Monitoring and Evaluation Component failed to meet its objectives.**
Developing effective indicators that could be replicable across UCs in a timely and cost-efficient way is an ARPA priority. Unfortunately, in Phase 1 ICMBio was unable to produce any reports that could answer strategic questions relevant to UC managers. It also failed to develop remote sensing data that could at a minimum enable ARPA to measure UC efficiency in reducing deforestation.

2) **Procurement and consultancy contracts were high cost and often ineffective due to both donor financial requirements and MMA standards (or lack thereof) that fail to account for the reality of doing business in the Amazon.**
Interviewees reported numerous cases of 2-year delays for "goods" that were not suitable for the Amazon environment. Cited examples include products such as high-powered boat motors that were quickly damaged in Amazon rivers with no local repair facilities or parts available. The current process for infrastructure projects – with no clear guidance from MMA - has also delayed implementation given extremely high bids. National contract bidding requirements led to very high cost contracts – that did not necessarily equate with high quality. Most importantly the bidding requirements created delays and headaches for UC managers rather than being a tool for increased effectiveness. *This aspect of ARPA tarnished the otherwise excellent reputation of the program in the field.*

3) **ARPA Advisory Committees were not used to their full potential.**
The original program design proposed a number of Advisory Committees that would increase the strategic oversight and civil society support for the ARPA program. Some of these were never convened (e.g. Mediation Committee), others were convened once or twice but never truly used (e.g. Science Committee), and the most important – the Comité de Programa had an important role, but has been deactivated for the past year. The UCP (Unidade de Coordenação do Programa) of the MMA has responsibility for this function and must staff appropriately and prioritize the importance of having strategic oversight support to strengthen ARPA.

4) **Improved financial reporting is needed for strategic oversight.**
The impressive *CEREBRO* system that allows all ARPA partners to track procurement requests and see expenses, was not designed for effective reporting in Phase 1. This led to difficulties for the UCP and CP to effectively oversee the project. The partners have now agreed on needed reports and *CEREBRO 2* is expected to be released in June of 09.

MAJOR RECOMMENDATIONS FOR PHASE 2

The economic and political context that contributed to successes in Phase 1 has changed, rendering the need for some new strategies in Phase 2. Recent commitments from President Lula to reduce deforestation by 72% by 2017 create more opportunities for Northern investment to help pay for the environmental benefits of more sustainable forest management techniques.[7] While private philanthropy is anticipated to decline during this difficult economic period, there are more international resources being committed to REDD and environmental compensation mechanisms looking for effective programs that can showcase Amazonian conservation on the ground. The importance of the Amazon for providing ecological services to Brazil and the world has never been clearer, opening new financial opportunities for ARPA in Phase 2. Within this context ARPA needs to bolster the key strategies that have made it successful to date and expand its ability to showcase measurable transparent results.

1) **Ambitiously create new UCs.**
   The success of Component 1 in creating new protected areas has surpassed all expectations of ARPA in Phase 1. The original plan for the whole ARPA project over 3 phases was to create 50,000,000 hectares of new conservation areas – an incredibly ambitious goal. ***Given the successful creation of almost 24,000,000 hectares in Phase 1, this evaluation endorses the idea of increasing the scope of ARPA to support the creation of 60,000,000 hectares over the life of the project.***

2) **Develop an immediate partnership with a remote-sensing facility for M&E**
   Given the lack of success of the M&E component during Phase 1, funding should be redirected. There is an immediate need to take stock of ARPA UC boundaries and the ability of the UCs to lower deforestation rates both within and on the peripheries of the UCs. Remote sensing capacity is needed. IMAZON and/or INPE should be assessed as potential strategic partners for ARPA in Phase 2 to provide needed data for strategic decisions on UC management.

3) **Engage Brazilian Government partners (federal and state) to make significant contributions to the ARPA Trust Fund and help steer new funding toward ARPA.**
   Capitalization of the Trust Fund to date has been done with little engagement from the Brazilian government or state government partners. Given that ARPA is one of the best, if not the best, program currently managed by the MMA, government entities should be excited about actively supporting its long-term goals. In addition, the most likely new sources of funding are environmental compensation funds and voluntary carbon market funds, both of which will require state and federal government support to steer towards ARPA UCs and the Trust Fund.

2) **Set a ceiling on operational ARPA funding so that UCs graduate to the Trust Fund**
   While much of ARPA's original design has proven to be extremely effective, there is a perverse incentive in the current system for "consolidating" UCs. There are well managed UCs that meet consolidation criteria for accessing the ARPA Trust Fund. However, they prefer to continue using ARPA operational funds which provide greater flexibility in types of expenses and from the UC Director's perspectives – more funds. Thus, well-managed UCs have no incentive to graduate to the Trust Fund. Similarly, in the current system poorly-managed UCs with little conservation results or political commitment, can continue

[7] The Guardian

receiving ARPA operational funding. Ceilings are needed for both 'years in the ARPA program' and 'total operational funds' per UC. A 3-part system is proposed so that well-managed UCs continue to move up the "ladder" to Trust Fund access, while poorly managed UCs will not advance.

5) **Re-energize the committees that were proposed in the original project design.**
ARPA has a lot of support among Brazilians who care deeply about sustainable development and conservation. The committees provide a way for ARPA to tap that support with additional insights and strategic recommendations. Staffing committees and managing forceful personalities takes time, but it is a key role that the UCP should be playing. The CP (Comité de Programa) needs to be immediately revitalized and should play an important strategic role in major Phase 2 decisions, not just yearly POA approval. Additionally the Scientific Advisory Panel, the Conflict Mediation Committee and some work groups (e.g. Grupo de Trabalho such as Infrastructure) need to be rebuilt and given clear mandates and deadlines. The UCP needs to be staffed effectively to manage this role in Phase 2.

6) **Raise the ceiling on the *conta vinculada* per UC and incorporate low cost "goods".**
The *conta vinculada* is a major achievement of the ARPA program for advancing conservation on site. Over the past few years the effectiveness of the *conta* has been proven: transparent systems have been developed; UC staff has been able to do their jobs far more effectively; local communities have benefited from UC spending in the municipality; and donors have had time to see the effectiveness of the program. Given the success of the *conta* over the past few years, inflation, and the cost of activities - particularly in the most far-flung parks, raise the *conta* ceiling per UC to R$20,000. At the same time provide an additional line of credit through the *conta* for low-cost goods (recommend $20,000) that will enable field staff to buy supplies and equipment when needed, rather than waiting 12-24 months. This also guarantees locally suitable products with warranties from local stores and the ability to get local parts and repair services.

SECTION C

CREATE 18 MILLION HECTARES OF NEW PROTECTED AREAS

SUBCOMPONENTS 1.1 AND 1.2

Major Findings

The ARPA project surpassed all expectations in the creation of new conservation areas (Unidades de Conservação - UCs) in the Amazon. ***The project far exceeded its own ambitious expectations, converting 23,981,642 hectares into 43 new UCs, a huge achievement for advancing the goal of biological conservation in the Amazon.*** ARPA has doubled the amount of Brazilian Amazon under strict protection – from the 3.2% (12 million ha) at the start of the project[8] to over 25 million ha today. The addition of another 10 million ha in sustainable use areas meets two societal needs in Brazil – conserving biodiversity and providing improved livelihoods for traditional forest dwellers.

TABLE C.1 KEY OUTPUTS FOR SUBCOMPONENT 1.1 AND 1.2 IN ARPA PHASE 1[9]

OUTPUT	ASSESSMENT 12/08
Creation of 18 million hectares of new protected areas ■ 9 million hectares of "strict protection" PAs; ■ 9 million hectares of "sustainable use" PAs	ARPA created 23,981,642 hectares in 43 new conservation areas in Phase 1. ■ 13,195,911 hectares in 13 "strict protection" UCs. ■ 10,785,731 hectares in 30 "sustainable use" UCs.
Backup studies and analyses (documents), including polygon maps, rapid biological assessment, and others.	Regional seminars, commissioned research, data compiled by numerous organizations, updated satellite images, and scientific input all went into the *Map on Priority Areas to the Conservation, Sustainable Use and Sharing of Benefits from the Brazilian Biodiversity*, established by Presidential Degree #5092 and Administrative Rule of the MMA #126 in May 2004.

[8] World Bank, Project Appraisal Document (PAD) p 6.

[9] The project outputs used for Phase 1 are in the Detailed Project Description of Annex 2 of the PAD. Outputs are organized by component – this evaluation has moved the outputs of component 1.3 to Section D. World Bank, PAD. p 56.

EFFICIENCY

The overall cost of Subcomponent 1.1 and 1.2 was approximately R$15.4 million[10] with funds provided by all the major ARPA donors (GEF, MMA, WWF-Brasil, and KfW) in Phase 1. This amounts to 19% of the operational costs of ARPA, not including the ARPA Trust Fund. Given the extremely high importance of the creation of these UCs, the costs and the high rate of expenditure in this component seem reasonable. Administrative efficiencies for better managing high cost consultancies which affected Component 1.2 are recommended in Section G.

1.1 IDENTIFY PRIORITY AREAS

BACKGROUND TO SUBCOMPONENT 1.1

The implementation of Subcomponent 1.1 was primarily managed by the UCP/ MMA with involvement from a large number of partners.

> **Purpose:** *Identify priority areas over 23 ecoregions:*
> Collect biological, social, and economic data on the Amazon region for use in selecting the protected areas to be created. Data collection employed existing information, databases, and updated satellite images.[11]

IMPLEMENTATION OF SUBCOMPONENT 1.1 IN PHASE 1

An impressive planning effort held in many venues in the 2002-2006 period involved a large number of stakeholders, nonprofits, academics, and state and municipal agencies in setting priorities for the ARPA project to help expand the conservation area coverage in the Amazon from 4 to 12%.[12] The UCP organized the prioritization exercise, holding regional seminars, incorporating data from numerous organizations, and commissioning analyses of the major threat factors and highest biodiversity targets in each Amazonian state. As specified in the PAD, the data collection employed existing information, databases, and updated satellite images. Their efforts piggybacked on work already done by the MMA through the PROBIO project that looked not just at biodiversity but also sustainable use opportunities throughout the Amazon.[13] This philosophy of balancing economic and social needs with the maintenance of biological diversity has played a major role in MMA's planning process and led to the engagement of many representatives of civil society as well as biologists and environmental NGOs.

Many products resulted from this effort including a map reviewing the state of conservation areas and indigenous territories across the Amazon in 2007,[14] an MMA Administrative Rule in 2007 giving these areas increased priority, and important guidance to the MMA, states, and the ARPA team as large numbers of UCs began being proposed for creation. The process also highlighted the demand and availability of lands for "sustainable use" UCs. The demand – and

[10] Financial figures provided by Funbio "compon x donor" - 12/08.
[11] World Bank, PAD, p 13.
[12] Funbio, Programa Áreas Protegidas da Amazônia - ARPA
[13] MMA-ARPA Áreas Prioritarias para a Conservação, p 1 (Presentation by MMA Executive Secretary Capobianco).
[14] ARPA, Amazônia Brasileira, map done by Instituto SocioAmbiental

political will – for creating "sustainable use" UCs, appears to cover about twice as much land as that identified for "strict protection".[15]

This was an extremely well-managed component of ARPA that consistently gets high reviews from participants and obviously has contributed to some very successful results on the ground.

RECOMMENDATIONS FOR IDENTIFYING PRIORITY AREAS IN PHASE 2

Given ARPA's long-term commitment to creating over 50 million ha in new UCs, the strategic importance of updating data for this subcomponent will be ongoing in Phase 2. The following recommendations are for additional consideration in Phase 2 design.

1) **Continue to invest heavily in this activity.** With ongoing changes happening throughout the Amazon the need to stay current on both the size of remaining areas as well as ecological representation within the ARPA and wider SNUC system remains a priority for Subcomponent 1.1 in Phase 2. If ARPA is going to meet and surpass its goal of creating 50,000,000 hectares of new protected areas it will need to use the best science available in supporting UC creation over the remainder of the project.

2) **Re-engage the Science Panel and Comitê de Program (CP) in this subcomponent.** Over the course of ARPA these important panels have lost traction, albeit they were an important part of the project's early success. The POA of 2005 discussed the need for engaging the Science Panel but this recommendation has not been adequately implemented.[16] The UCP should be managed and staffed to ensure that these panels are immediately reactivated with clear strategic review functions. For example, Ronaldo Weigand has been contracted to prepare a new "Estratégia de Conservação e Investimento", based on updated studies of biological representation, gaps and threats. This is the type of ARPA product that would benefit from strong scientific review and support.

3) **Make more explicit and differentially weigh factors in the identification of priority areas.** As the threats in the Amazon continue to grow the conservation of biodiversity becomes increasingly difficult and more weighting must go into defining priority areas. The Science panel should be engaged to consider issues such as:
   - Irreplaceability
   - Mosaics
   - Connectivity and isolation of potential UCs. Given the continued high rate of deforestation and degradation with population dispersal in the Amazon and the decision to create UCs under 100,000 ha within ARPA – the smallest is 30,643 ha – should Phase 2 weigh mosaics and connectivity even higher to reduce the risk of isolated islands of biodiversity in future Amazon scenarios?
   - New scientific approaches such as a recent analysis by WWF-Brasil on ecological representation in the Amazon that overlapped ecoregions and vegetation types to ensure repeat representation.[17] These new types of approaches could help to further steer ARPA Phase 2 to protect types of vegetative cover not adequately represented in today's UC system.

[15] MMA-ARPA, "Áreas Prioritiarias …" Tabela 2 "Áreas por Tipo de Acão Prioritária" 97 UCs over 434 million ha recommended for sustainable use as opposed to 44 UCs over 207 million ha for strict protection.

[16] Cabral, Relatório Final Sobre Diagnóstico.. p 13.

[17] WWF-Brasil, Impacto p 1.

1.2 CREATE DECREES FOR UC ESTABLISHMENT

BACKGROUND FOR SUBCOMPONENT 1.2

The implementation of Subcomponent 1.2 was primarily managed by the UCP and ICMBio of the MMA for federal conservation areas and State Ministries of the Environment for state areas.

> Purpose: "The preparation of studies, consultations, and proposals for creating the new protected areas. These studies will include environmental and social studies carried out locally, as well as land tenure assessments. Any social conflict identified in the assessments would be reported to the Conflict Mediation Committee. The local consultations would discuss the proposals and once discussed, the decree would be submitted for approval and publication."[18]

The ARPA project funded the above studies and public outreach processes in support of any of the following 5 types of conservation areas (Unidades de Conservação – UCs) in two broad categories:

- Conservation areas for biological protection (IUCN Categories I-II):
  1. National, State or Municipal Parks
  2. Biological Reserves
  3. Ecological Stations
- Conservation areas for sustainable use (IUCN category VI):
  4. Extractive Reserves
  5. Sustainable Development Reserves

IMPLEMENTATION OF SUBCOMPONENT 1.2 IN PHASE 1

It was originally supposed that 10 new UCs would be established in Phase 1 covering 18 million ha[19] and encompassing a small number of extremely large, relatively isolated, "strict-protection" UCs, such as Montanhas do Tumucumaque (3,867,0000 ha) or Estação Ecológica Terra do Meio (3,373,131 ha). However, demands emerged for the ARPA program to consider a much more diverse group of UCs. Amazonian populations wanted to establish sustainable use areas, there is the imperative of protecting areas along the "Arc of Fire" where deforestation pressures are strongest, and ARPA needed to engage state governments as stakeholders. ***The inclusion of these priorities became extremely important factors in rapidly escalating the number of UCs created within the umbrella of the ARPA program***. Additionally it led to a greater range in the size of ARPA UCs, enabling the creation of 8 UCs under 100,000 ha, not envisioned in early project design. Finally, the work of the Executive Secretary of the MMA, João Paulo Ribeiro Capobianco, in actively promoting and negotiating the inclusion of many new areas was mentioned in interviews as an important factor in the success of this subcomponent.

This pragmatic and responsive approach moved the ARPA project away from a more exclusive focus on prioritizing areas of high biodiversity and low threat to developing a portfolio to respond to the social needs and aspirations in the Amazon. ***The result is a program with a***

[18] World Bank, PAD, p 13.

[19] World Bank, PAD p 13.

riskier portfolio from a biodiversity perspective, but a much richer opportunity to influence the evolution of long-term conservation programs by showing measurable results in areas of greater anthropic pressure.

TABLE C.2 PROTECTED AREAS CREATED UNDER THE ARPA PROJECT

Year	Type	# of UCs	Hectares
2000	Strict Protection	1	59,010
	Sustainable Use	1	179,602
2001	Strict Protection	2	422,701
	Sustainable Use	4	516,158
2002	Strict Protection	2	3,974,399
	Sustainable Use	3	1,055,060
2003	Strict Protection	0	0
	Sustainable Use	2	1,220,695
2004	Strict Protection	1	693,975
	Sustainable Use	3	2,328,960
2005	Strict Protection	4	4,677,148
	Sustainable Use	9	1,761,925
2006	Strict Protection	3	3,368,677
	Sustainable Use	4	1,561,295
2007	Strict Protection	0	0
	Sustainable Use	1	477,042
2008	Strict Protection	0	0
	Sustainable Use	3	1,684,990
TOTALS	**Strict Protection**	**13**	**13,195,911**
	Sustainable Use	**30**	**10,785,731**
	TOTAL UCs	**43**	**23,981,642**

Table C.2 illustrates the difference in size between the average Sustainable Use UC (359,524 ha) and the Strict Protection UCs (> 1 million ha). Consistent with research on protected areas, the larger "strict protection" UCs tend to be farther removed from current human population pressures and thus have greater potential for long-term biodiversity conservation.[20] Smaller reserves are established closer to people and usually have greater hunting pressures and other threats that result in species decline. An important biodiversity contribution in Phase 1 is the placement of a number of "sustainable use" areas adjacent to "strict protection" areas, providing greater buffer areas within a wider mosaic. The table also showcases the huge amount of traction gained during the 2005-2006 period, the apex of Phase 1.

The Table fails to show the preparation already underway for major new UCs in 2009. There are 20 additional sites being proposed (7 million ha) of which 3 are far along in the evaluation and

[20] Naughton-Treves et.al., p 225.

public comment process and are anticipated to move forward quickly.[21] Thus Phase 1 has also set up additional "early wins" for Phase 2.

Another clear priority in ARPA UCs is to "regularize" land tenure claims by surveying all the residents in an area, reviewing their claims, defining UC boundaries, setting up appropriate relocation policies, etc. To clarify the methodology for this process ARPA hired two consultants to develop a "roteiro" or "guidebook" based in part on the ARPA experience to help improve this process throughout the SNUC system in Brazil.[22] While there are few examples of completed "regularization" where landowners accept compensation[23] and withdraw their claims for lands within UC boundaries, Phase 2 should see higher levels of activity in this arena.

Four additional justifications for the importance of this subcomponent have emerged over the past 6 years:

- **ARPA is a leader in demonstrating the critical role conservation areas play in reducing deforestation and preserving carbon in the Amazon.** As the world looks to protect the Amazon as a globally essential carbon sink, this project is an important showcase of the types of mechanisms needed to be successful. A recent study on the Amazon indicated that "the model showed that by 2050, expansion of protected areas during 2003-07 reduced 272,000 km² (27.2 million ha) in deforestation, thereby avoiding 3.3±1.1 gigatons of carbon (GT C) emissions, of which 0.4 GT C was attributable to 13 protected areas established with ARPA's support. Including an additional 127,000 km² (12.7 million ha) of new ARPA protected areas throughout 2008, the ARPA program would reduce a total of 1.4 GT C (or 5.1 GT CO2) in emissions by 2050." [24]

- **Decreeing UCs on "unclaimed government lands" reduces deforestation.** Approximately 12% of the Amazon region prior to ARPA was "unclaimed government land." This land is targeted by squatters and speculators looking to make land claims, as well as by INCRA (Instituto Nacional de Colonização e Reforma Agraria) which works to resettle people in need of land and employment. Newly declared conservation areas (UCs) however, attract fewer new colonizers as land claims are recorded as part of the UC creation process. New colonizers, unable to justify a historic claim, are far less likely to invest their time and energy there. As the WWF-Brasil study indicates: "Based on analyses of historical deforestation rates from 2002-07 within the region´s 520 protected areas, and in surrounding zones at 0-10 km, 10-20 km and >20 km distance, we found that the probability of deforestation was 7-11 times less within protected areas than outside these areas, increasing progressively in zones increasingly distant."[25]

- **Acting now is imperative.** Ongoing population growth and dispersal throughout the Amazon requires protecting places sooner rather than later. Fewer, smaller, and more degraded sites will be available in the future and costs will only increase as the agricultural frontier or urban interfaces move closer to potential conservation areas.

- **Engaging willing State Governments is a strategic investment**. The ARPA project has successfully engaged 5 state governments (Mato Grosso, Acre, Tocantins, Rondônia

[21] ARPA, Relatório de Actividades 07-08 p 6.
[22] MMA, Roteiro Metodológico Para Implantação do Plano de Consolidação de Unidades de Conservação
[23] The evaluator heard of a number of UCs where compensation was offered and not accepted – leading to still outstanding courtroom decisions. In one case in Mato Grosso, "legal reserve" funding was applied to buy out a local farm with an absentee landlord – funds from legal reserves and environmental compensation could play an important role here.
[24] Soares-Filho et. al., p 1.
[25] Ibid p 1.

and Amazonas) in creating and managing their own state UCs and strengthening their state environmental infrastructure. Other states all worked with the federal government (at different levels of commitment) to create new federal protected areas and sustainable use UCs. ARPA's efforts to institutionalize the political will and increase support for conservation goals as part of the mandate for state governance is an important contribution to state capacity in the Amazon.

In summary this subcomponent has been a tremendous success, not only in numbers and hectares but as a major contribution to the ARPA mission of conserving biodiversity.

RECOMMENDATIONS FOR CREATING DECREES FOR UC ESTABLISHMENT IN PHASE 2

The high level of success with this subcomponent begs a hands-off approach to recommendations. However, the situation is dramatically different going into Phase 2. Additionally, a number of the recommendations made in the original PAD documents need to be reaffirmed and revitalized in Phase 2.

1) **Leverage ARPA support for ongoing UC creation.** While an argument is being made by some ARPA implementers that Phase 2 funding should go into enhancing management capacity rather than creating more UCs – the need and political opportunity to create UCs should not be passed up. An alternate approach, if funding for Phase 2 is a concern, could also be considered. During Phase 1 it was assumed that all new UCs created with ARPA support would automatically be included in ARPA management support. However, there is high leverage potential for ARPA to provide support for the creation of a large number of UCs cheaply and relatively quickly. ARPA can provide states and federal government with the data from Subcomponent 1.1 and funding for Subcomponent 1.2 to assist in the creation of many new UCs and mosaics in Phase 2 that support the goals of the Brazilian government and willing states. As discussed further in Section D, the decision as to which of these newly created UCs will receive ongoing management funds can be based on separate criteria. Early negotiations for Phase 2 have raised the prospect of increasing ARPA support over the life of the project to support the creation of 60,000,000 hectares of new protected areas. Ongoing strong investments in this component could make this extremely ambitious plan a reality.

2) **Revitalize the Science Panel and Comitê de Program (CP) in this subcomponent**. The Science Advisory Panel can help set criteria for UC creation that reinforces ideas from Subcomponent 1.1 such as mosaic creation. It could also help set minimum criteria for investing in UC creation by reviewing considerations such as:

   - **Keep UC size above 100,000 ha.** The ARPA project has sponsored UCs that range from 30,643 ha (Reserva Extrativista Maracana) to over 3.8 million ha (National Park Montanhas do Tumucumaque). The PAD indicated a preference for UCs of over 100,000 ha in the hope that genetically viable populations of wide-ranging species could be secured.[26] Smaller sustainable use UCs face greater challenges in preserving biodiversity particularly in allowing adequate species movement, ecosystem processes such as flooding cycles, and regeneration from large-scale losses such as fires etc. Landscape fragmentation and ecological isolation are very big threats within the current

[26] World Bank, PAD p 7.

Amazon context. Yet these smaller protected areas safeguard biodiversity within a wider number of ecoregions, often housing unique and endangered species. Research indicates however that protected areas smaller than 10,000 ha generally are unable to stem long-term species loss.[27] Designing UCs that have "no take zones" or "core conservation areas" of at least 10,000 ha in UCs of "sustainable use" could be considered a bare minimum requirement. That way these areas can be respected for their ability to replenish the surrounding sustainable use UC with both species and ecological services.

- **Establish political guidelines**. Similarly the Comitê de Programa (CP) can review and approve additional minimal political criteria prior to authorizing funding for subcomponent 1.2 such as the maintenance of the current policy of not overlapping with areas declared for indigenous territories, state commitment to newly created UCs, etc. (There are further recommendations for engaging the Conflict Mediation Committee for sites selected for ARPA management in Section D.).

3) **Sequence steps in UC Creation.** ARPA currently uses 5-steps to create a new UC, but in no set sequence.

   - Public consultation process
   - Diagnosis of the land tenure situation
   - Environmental assessment
   - Socio-economic assessment
   - Legal decree

   Reports from both Mato Grosso and Rondônia indicate there is danger in starting a public consultation process prior to documenting land tenure. The assumption is that just as declared protected areas tend to discourage new settlers, the time period just prior to a UC declaration, has the opposite effect. In the expectation that an area will be declared a UC, settlers and speculators may make a greater effort to move in so they can be counted as residents and take advantage of permanent residency, relocation or compensation arrangements. While no academic research of this phenomenon is cited, the cautionary tale from two states makes a strong point that sequencing of the steps to ensure appropriate environmental and land tenure assessments prior to public comment periods may lead to fewer conflicts and a more ecologically intact UC.

The success of Component 1 in creating new protected areas has surpassed all expectations of ARPA in Phase 1. The original plan for the whole ARPA project over 3 phases was to create 50,000,000 hectares of new conservation areas – an incredibly ambitious goal. ***Given the successful creation of almost 24,000,000 hectares in Phase 1, this evaluation endorses the idea of increasing the scope of ARPA to support the creation of 60,000,000 hectares over the life of the project.***

Subcomponent 1.3 is a management component and addressed in Section D. The recommendation is that the management activities be grouped in one component for administrative and reporting efficiency.

[27] Terborgh J, pp. 15–35.

SECTION D

EFFECTIVELY MANAGE ARPA PROTECTED AREAS

SUBCOMPONENT 1.3 AND COMPONENT 2

EXPLANATORY NOTE: The ARPA project tracks both the establishment of basic management in new ARPA sites (Component 1.3) and the efforts to consolidate management in 17 "established UCs" (e.g. "strict protection" UCs created prior to 2000) which are budgeted in Component 2. Given that many of the same issues recur in establishing effective management practices, this section of the evaluation bridges Component 1.3 and Component 2 to avoid repetition.

MAJOR FINDINGS

ICMBio's experience in establishing a basic management presence on the ground has proven to be more successful in the ARPA experience than in any other Amazonian MMA managed program. State capacity has also been strengthened in ARPA state UCs. Given that 10 new UCs were anticipated in the original project design but 43 were created and are installing basic management capacity – this is exceptional progress! In addition 17 "strict protection" UCs founded prior to 2000 were included in Subcomponent 2.1 for receiving ARPA funding to improve management – an additional 8.5 million ha. ***Thus, in total the ARPA project is providing management support to 60 UCs covering 32 million hectares.***

TABLE D.1 KEY OUTPUTS FOR SUBCOMPONENT 1.3 AND COMPONENT 2 IN ARPA PHASE 1[28]

	OUTPUT	ASSESSMENT 12/08[29]
1.3	Development of 14 basic protection plans for new protected areas.	■ 10 newly established UCs have solid basic protection plans as of 2008 with funding supporting 37 UCs.[30]
1.3	Completion of on-the-ground establishment activities for 10 protected areas including basic infrastructure, equipment, staffing,	■ 37 UCs are getting support with 11 having reached a high level of effectiveness – 4 "strict protection" UCs and 7 "sustainable use" UCs.[31]

[28] While there are many areas where the PAD lays out goals, this list looks at the "Detailed Project Description" in Annex 2 of the PAD. World Bank, PAD. p 56 for 1.3 outputs p 60 for Component 2 outputs.

[29] The measures for key outputs are taken from the Relatório de Actividades 2007-2008. The measures are based on each manager's portrayal of the UC advances in management capacity. The tracking system used assigns percentage values to determine if the UC has effectively met threshold management criteria.

[30] ARPA, Relatório de Actividades 2007-2008, p 20.

[31] Ibid p 14

	and demarcation.	
2.1	Nine approved protected area management plans under implementation.	■ 10 "strict protection" UCs have management plans completed and approved and 2 more have completed plans.[32]
2.1	11 management plans under elaboration.	■ Many plans are being undertaken; however this evaluation and those of other consultants raise concerns about the effectiveness of some of the plans. Recommendations are made for accelerating the timetable for a UCP organized work group to improve upon the current model being used in management plan development. Section G also recommends changes in procurement to allow contracting a greater range of qualified professionals.
2.1	12 federal "strict protection" protected areas and three state/municipal "strict protection" protected areas with basic infrastructure completed and equipped.	■ A few "strict protection" areas have both infrastructure and equipment fulfilled at threshold levels. However, the current infrastructure process is overly expensive and time consuming. Recommendations are made for accelerating infrastructure development with basic modular designs and the ability to contract local builders.
2.1	A management review system in place at IBAMA and at target protected areas.	■ The UCP has successfully developed SisARPA, a transparent internet based system that reviews UC management indicators. It is viewable by the UCP, ICMBio, UC managers and all ARPA partners.
2.3	Increased and tangible inter-institutional coordination and community participation at the protected area level through a strong buffer zone management program	■ The *conta vinculada* is key for engaging local Councils in support of the UCs and covering the costs of volunteer Council members to attend meetings. In addition, 12 small grants were provided to community groups around 6 'strict protection' UCs to assist in buffer zone management and capacity building.
2.3	Improved inter-institutional coordination and demonstration of participation from the communities	■ 11 of the 17 UCs supported in this subcomponent have established local advisory councils with 9 councils

[32] Ibid p 23.

	around the protected area.	determined to be actively engaged within the threshold criteria.[33]

In addition to the outputs above the Project Appraisal Document[34] also indicates that "7 million hectares of existing "strict protection" PAs and 3 million hectares of new "strict protection" PAs be consolidated and managed." The program is effectively building management capacity in these areas and some UCs are reaching threshold criteria. ***Phase 1 has established that consolidation criteria are achievable.***[35]

Developing effective operational tools in Phase 1 has effectively differentiated ARPA as a program that enables on-the-ground management. Four major initiatives deserve special mention given their strong impact on ARPA management successes to date:

- MMA and State Governments are staffing the UCs, thereby providing the essential ingredient for effective management — on-the-ground staff;
- Money gets directly to the UC managers through the "conjoined account" or *conta vinculada*. Financial planning, execution and tracking for UCs is visible to all ARPA partners through *CEREBRO*, an internet-based financial management system managed by FUNBIO;
- There are systems in place to advance effective management. The *SisARPA* internet system managed by the UCP/MMA tracks the efficiency of UC management against benchmarks in the creation – implementation – consolidation cycle and helps along with *CEREBRO* to produce yearly operational plans; and
- Co-gestão, or shared management, is being established with local community groups as an underpinning for the long-term sustainability of the UCs.

These 4 processes have broken through long-standing bottlenecks allowing more effective UC management in the Amazon. This is an enormous feat that the Brazilian government and ARPA partners should be exceptionally proud of. There are well-managed UCs in the Amazon with measurable on-the-ground results and a motivated and effective staff – a few at very high levels of evolution.

While ARPA UCs are envied within the Amazon for having resources, a greater number of assigned staff, and higher levels of operational efficiency, there are obstacles that must be cleared in Phase 2. There are two issues that affect the ability of UCs to meet the consolidation criteria:

1) **ARPA has a perverse incentive in its design that needs to be reversed**. The assumption that the best managed UCs will want to "consolidate" is erroneous. There are a number of 'strict protection' UCs that have the political support, financial resources, solid management, infrastructure, and substantial conservation results in place to meet all the "consolidation" criteria. They are not interested in being consolidated as they will lose funding if they move to FAP funds that only cover recurrent costs. Given the current 'rules of the game' ARPA will penalize the best prepared UCs by giving them less resources with the FAP while continuing to provide higher levels of support to UCs that are not producing effective results. This needs to be reversed and ICMBio and the state agencies with exceptional UC teams and accomplishments should be rewarded.

[33] Ibid, p 24-25.
[34] World Bank, PAD p. 2.
[35] UCP, Relatório de Actividades 07-08. p. 21

2) **Many UCs have not yet met basic management effectiveness criteria and will continue to encounter obstacles in their efforts to reach consolidation due to ongoing bottlenecks.** Bottlenecks to effective management that are addressed in this section include:

- Partnerships with law enforcement agencies (fiscalização)
- Lack of results-oriented UC Management Plans;
- Overly expensive and time-consuming infrastructure projects; and
- Inability to consistently contract local people for needed services.

In addition, given the scale of ARPA and the huge amount of work being undertaken by UC staff, ongoing administrative improvements are needed. Yearly plans must be approved in a timely fashion, procurement rules need to be eased for low cost "goods', and the financial ceiling for the *conta vinculada* per UC should be raised. These administrative issues are discussed further in Component 5 (Section G) along with additional concerns about MMA and state staffing structures.

EFFICIENCY

The overall cost of Subcomponent 1.3 and Component 2 to manage 60 UCs was R$41.8 million with funds provided by all the major ARPA donors (GEF, MMA, WWF-Brasil, and KfW) in Phase 1.[36] This amounts to a full 50% of the operational costs of ARPA, not including the ARPA Trust Fund. It also fails to reflect the vast majority of the Government of Brazil's contribution to the ARPA project in the form of staffing in all the UCs. Given the expense of establishing management capacity in this far-flung UC network, the costs and the high rate of expenditure in this component seem reasonable. Additional recommendations are provided in Section G for keeping costs in line for equipment, management plans and infrastructure projects to enable more effective and efficient spending at the local level.

[36] FUNBIO "compon donante.xls".

Managing and Consolidating ARPA UCs

BACKGROUND TO SUBCOMPONENT 1.3 AND COMPONENT 2

The implementation of Subcomponent 1.3 and Component 2 was primarily managed by the UCP and ICMBio of the MMA for federal protected areas and State Ministries of the Environment for state areas with the exception of Subcomponent 2.3 which was managed by FUNBIO. For the UCs established under ARPA, as well as selected existing 'strict protection' UCs established prior to 2000, on-the-ground management is to be put in place including:[37]

- Demarcation and land regularizations, including land tenure assessments, baseline land registry surveys, ground surveys, private property infrastructure surveys, and mapping. A detailed land acquisition plan will be prepared and government funds will be used to finance land purchase where needed.
- Basic protection activities, including infrastructure, equipment, and core staff, to secure services of protection and community outreach before the preparation and implementation of management plans.
- Preparation and implementation of management plans for new and existing protected areas consolidated under the Project.
- Community participation for the establishment and consolidation of protected areas. The activities will include the establishment and operation of protected area councils, partnerships with NGOs for protected area management, and community-driven subprojects.
- Training programs to strengthen the administrative, financial, and conservation management of protected areas.

The following subcomponents, while managed separately, have substantial overlap between their strategies and operational systems.

1.3 Designed to support basic management capacity in all newly created ARPA UCs (e.g. 43 new UCs totaling over 23 million ha).

2.1 Designed to provide enhanced management support to existing strict protection UCs established prior to 2000 to help them achieve consolidation. 17 UCs were selected totaling over 8.5 million ha.

2.2 Not initiated in Phase 1. It is designed for UCs in subcomponent 1.3 that are ready for consolidation, but none have met the criteria at this time.

2.3 Provides specific additional funding for outreach to communities.

2.4 Training and Outreach to support the objectives above.

SUCCESSES IN ESTABLISHING EFFECTIVE UC MANAGEMENT

PERSONNEL ARE ASSIGNED TO ARPA PROTECTED AREAS

One of the most important steps in the evolution of a "paper park" to a respected conservation area is the presence of local staff. Staffing is the Government of Brazil's and state government's

[37] World Bank, Project Appraisal Document (PAD) p 14.

essential contribution to ARPA. ARPA funding support for management is provided to UCs that have a minimum of 2 professional staff members in a 'strict protection' UC and 1 professional staff person and 1 community-based person for a 'sustainable use' UC.[38] Of the 43 UCs established in ARPA only one has yet to receive regular funding for Component 1.3 (Parque Nacional do Rio Novo) due to lack of staffing from ICMBIO.[39] The commitment of the MMA and state governments to ARPA is evidenced in their follow through in staffing the UCs. The idea is that every UC will ultimately have a minimal 5 staff contingent to be eligible for FAP financing as a consolidated site.[40] ***The average staffing rate in ARPA is over 2 staff members per UC - a major gain according to all Amazon watchers on even less adequate staffing and funding in non-ARPA supported areas.***

DIAGRAM D.1 TOTAL STAFF ASSIGNED TO UCS[41]

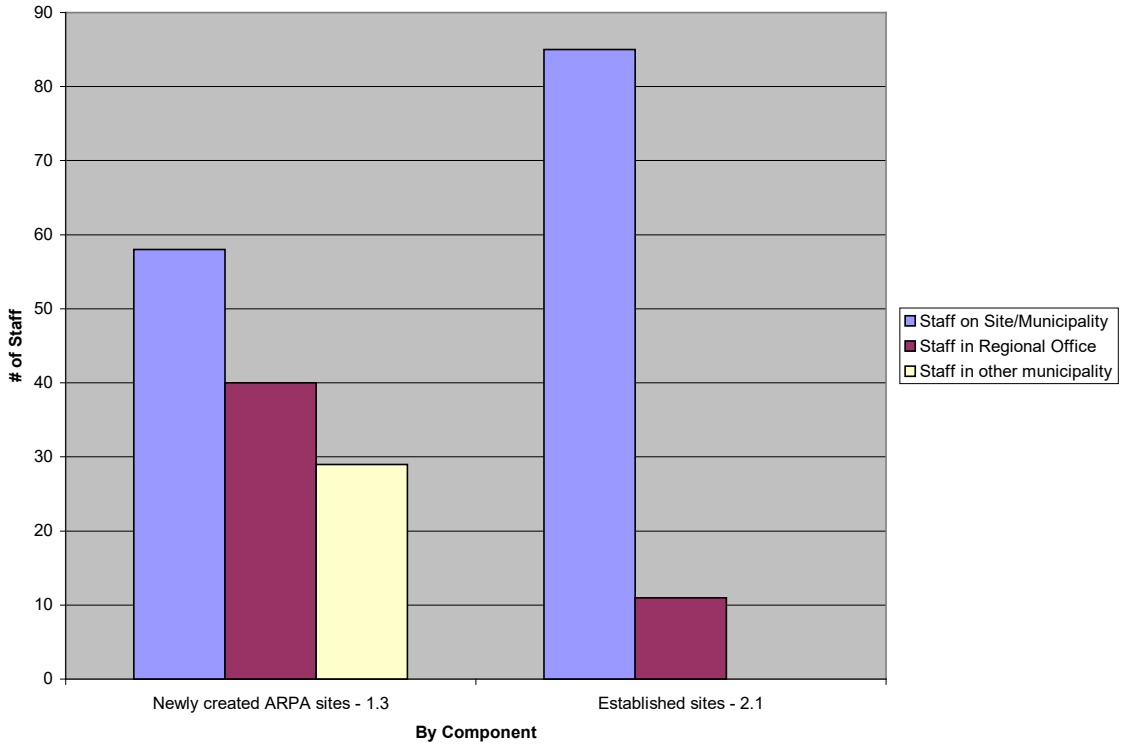


Diagram D.1 indicates that the total staff working directly for the UCs formed under ARPA in Subcomponent 1.3 is 127 staff for the 43 newly created UCs or an average of 2.9 staff persons/UC – or 1 staff member/190,000 ha. As can be seen in the diagram, there is substantial flexibility in locating staff – with most based on site or in a surrounding community. Some staff are based in larger towns when much of their work is engaging with other government agencies or the town is the common travel destination/market for far-flung communities. Some staff base in these regional cities for the amenities and then rotate in and out of field sites or low-income rural communities. Where effective staffing breaks down, is when the majority of staff are centrally located (e.g. state capitol) and provide no ongoing physical presence. This is more noted

[38] World Bank, Missao de Revisão de Meio Termo. Pt 27 on p 6.
[39] Personal communication – UCP on 1/5/08. Daniela de Oliveira.
[40] World Bank, Missão de Revisão de Meio Termo, Pt 26 on p 6.
[41] ARPA, Relatorio de Actividades pp 66-76. Summarizing these numbers for Chart D.1

in Mato Grosso that had few state staff assigned on site[42] and high level of turnover with those assignments. In these cases there is no continuous presence or follow through with local communities and the effectiveness is questionable.

For the longer-established "strict protection" UCs in Component 2.1 there is a higher ratio of just over 5 staff per UC (17 UCs) and an average of 1 staff person per 88,500 ha. A much larger percentage of staff are based on site with many teams taking turns in staffing the area and then switching off to spend time in towns.

State levels of staffing commitment to protected area management vary. The SEMA Mato Grosso and SEDAM Rondônia staff point to their ARPA agreements as critical to getting state commitment to staff the ARPA state parks. Both states acknowledge that non ARPA state UCs have few if any assigned staff. While staffing, neither of these states have yet created professional career tracks and still use political appointments to secure UC jobs. Alternatively, Amazonas and Tocantins actively staff sites with professional staff and are using ARPA to further build their professional capacity and make substantial investments in on-site management.

Anecdotal comments from a large number of interviewees indicate that new or transferring ICMBio staff request to be placed in ARPA UCs and that tenure in ARPA UCs is markedly longer. The reason for this perception is that ARPA is the only large-scale project that regularly gets funding to the UC managers. These operational funds enable them to: patrol the area; meet with local communities; advance the land regularization process; cover the expenses of community advisory councils; and implement many core management activities such as putting up signage about the existence and borders of the UC. ARPA staff indicate they are more fulfilled and effective in their work. While MMA Human Resource records were not available to verify transfer requests, interviews with federal and state staffs consistently mentioned ARPA UCs as the plum assignment within the Amazon.

Finally, substantial training of relevant personnel has occurred throughout Phase 1 that has made a big difference for new UC managers and staff who had little prior experience. WWF-Brasil and the GTZ provide an impressive amount of technical support and training as part of their commitment to ARPA. Some of this training needs to be assumed by the MMA in Phase 2 to further institutionalize the commitment to staff development and benefit the wider SNUC system.

MONEY GETS TO THE UC MANAGERS

The most far-reaching decision of the March 2004 Supervision Mission was to allow FUNBIO to set up a "conjoined account" – the famous *conta vinculada* – to get operational money directly to UC directors as needed. These funds pay for transport, buy gas, get basic supplies, hire boatmen, host community advisory council meetings etc. – all of the day-to-day activities that allow UC staff to actively manage their UC. A bank account is opened for each ARPA UC requiring two signatories. Account reimbursement is linked directly to receipt of formal receipts, and is limited to relatively small amounts of cash (R$10,000) in a rotating fund. As soon as the receipt is provided for an approved item within the Yearly Plan, an additional R$10,000 is made available. ARPA staff are impressed with how well this system functions and how quickly FUNBIO processes the reimbursements (usually within 24-48 hours).

[42] ARPA, Relatório de Actividades 2007-2008, pp 68-69 and interviews.

The *conta* also pays for occasional local services from boatmen, cooks, trail hackers etc - a boon to the local economies and the reputation of the UC. Furthermore, local community advisory council members get compensated for their travel expenses – making membership on the local Councils much more appealing and meetings far more effective. Interviewees describe the *conta vinculada* in worshipful tones. As one state staffer declared: "*I prefer to get R$100,000 from ARPA to R$1,000,000 from the state, because I know I will actually get to use the ARPA funds.*" ***ICMBio and state staff report that there is NO other program as effectively disbursing funds for UC management in the Amazon.***

EFFECTIVE SYSTEMS SUPPORT UC MANAGEMENT

An excellent contribution from the MMA is the development of *SisARPA*, an internet-based system that uses the WWF Tracking Tool/ FAUC (Ferramenta de Avaliação de Unidades de Conservação) approach to monitor how UCs are moving towards consolidation. The MMA adapted the WWF Tracking Tool to create the FAUC system which indicates the status of each UC on the creation–implementation–consolidation cycle. UC managers update the database with their assessment of how far along the UC is in the process. This system is available to all ARPA UC managers and as such is a major part of the institutionalization of the knowledge – and essential in helping new managers understand what is going on within their UC. FAUC is also used to design the annual operating plans (POAs). An additional benefit is that the land ownership information is automatically linked to a wider census/land titling database. The major problem with the system at this point is that the server for this system is slow, making access from the field – and even from the UCP – cumbersome and frustrating at times.

Another system wide breakthrough for the Amazon region was establishing the yearly operating plans or POA (Plan Operativo Annual) for each UC. The POA is the basis for accelerated accountability and management capacity by laying out yearly UC plans, developing detailed budgets, and then approving funding within budgetary ceilings. The overall ARPA Program Committee (CP) approves the POA for the following year giving FUNBIO and UCP staff direction in assisting the UCs to implement their plans. POAs also provide guidance to ARPA support teams to know how to focus. For FUNBIO, the POA provides the budgetary guidance that allows costs and equipment and other line item requests to move forward. For the UCP, the POAs provide an aggregate sense of the UC managers' priorities and where the UCP can best add strategic value. While recommendations for ongoing improvements are included below, the fact that these systems are established and functioning is a major strength of this project.

A final break-through system is the transparent internet-based financial system – *CEREBRO*– linked to the POAs and managed by FUNBIO. All ARPA partners can view expenses and see what stage a given procurement process is in and what the next step needs to be.

These administrative breakthroughs are directly linked to ARPA's public/private partnership that has allowed more flexible and entrepreneurial systems to evolve.

COMMUNITY MANAGEMENT COUNCILS ARE EFFECTIVELY SUPPORTED WITH ARPA FUNDS

Co-gestão, or shared management, is a required underpinning for the long-term sustainability of UCs in the SNUC system. For "strict protection" UCs the purpose of engaging the local community is to advance the objective – conservation. In these cases the committee is advisory in nature. For "sustainable use" UCs, the committee has decision-making authority and thus the

dilemma of balancing economic growth opportunities with sustainable resource use is front and center in community deliberations. ARPA UC managers work with the local communities to engage them in discussions about the future of the UC and have them elect representatives to the "conselho" or Local Area Management Councils. A key ARPA indicator of effective UC management is the establishment of these conselhos. Fourteen UCs have formally established councils while 23 additional UCs are currently being funded to advance this goal.[43]

Seen as a partnership between UC management agencies and local communities, the ideals behind the conselhos are impressively democratic and participatory. Implementation however, runs into very real issues around politically divisive UC goals, lack of education and leadership skills in many communities, burdensome volunteer obligations, rivalries between communities, and the logistics of traveling around very large UCs with minimal infrastructure to attend meetings.

To help over come some of the local obstacles, ARPA funds, through the *conta vinculada,* provide incentives through per diems and travel expenses to conselho members to attend meetings and participate in UC management decisions.[44] Interviewed staff indicate that without the ability to pay for meetings and cover travel expenses there would be a lot less enthusiasm for serving on the conselhos and minimal attendance at meetings. ARPA funds allow for a more professional approach to meetings, building leadership skills of the conselho members, and raising their prestige in the communities.

Some ICMBio staff interviewed have received quite a bit of training to learn more participatory techniques for running productive community meetings. While levels of proficiency vary, there are some excellent products coming out of a number of conselhos that educate community members about sustainable use decisions and explain the workings of the UC and goals for the communities.[45] Increasingly there is an effort to use visually graphic and 'easy to understand' communication tools to depict the reality of the UC and the local communities.[46]

RECOMMENDATIONS FOR EFFECTIVE UC MANAGEMENT IN PHASE 2

While much is going well, there are uneven results across UCs and bottlenecks for even the most effectively-managed UCs that are creating strains within the system. These strains will only be exacerbated with more UCs and become more entrenched problems in Phase 2 unless aired and resolved. This section raises 5 key issues and recommends placing management (gestão) under 1 component rather than split (1.3 and 2) to make financial oversight, explanations, and comparisons easier.

1) SET FINANCIAL CEILINGS ON TOTAL ARPA FUNDING THAT REWARD TOP PERFORMANCE.

During Phase 1, ARPA provided substantial operational funding with a yearly ceiling set with each POA per UC. However, there is no defined limit on the number of years that a UC can receive operating funds, nor a ceiling on the total funds that can be received. ***Thus, no current UC wants to use FAP funds which are restricted to "recurrent costs" while***

[43] ARPA, Relatório de Actividades 2007-2008. p 19.
[44] Almeida da Silva pp. 2 -3 and interviews.
[45] A particularly useful document is Gomes, *Criacão do Conselho Deliberativo* which documents the processes used in Reserva Extrativista do Cazumbá-Iracema.
[46] An example is IBAMA, "Gestão Participativa na Reserva Extrativista Cazumbá-Iracema.

operational funds are more flexible. As part of designing Phase 2 it is imperative to deal with this situation so that well-managed UCs are rewarded and the FAP is available to those who have done a good job in moving towards conservation results. One proposal is to think of management evolution as a 3-part hierarchy with funding ceilings and performance criteria set for each level that must be attained before "graduating" to the next level.

Level 1: Basic Management in Place. This has much the same focus as Component 1.3 in Phase 1, but for a maximum 3-year period and a set total budget ceiling. Aside from the criteria that currently exist for ARPA funding (minimal staff etc.) set a requirement that within 3 years the site, whether 'strict protection' or 'sustainable use' has to show results on the ground in the conservation of biodiversity. The easiest measure would be to use remote sensing data to corroborate a decrease in deforestation for strict protection UCs (see Section F) and clear conservation of the core "no take" zone and solely licensed deforestation in "sustainable use" UCs. The most critical criteria will be staffing and a management plan that effectively guides strategic management actions to reduce threats to the UC. All of the current support through the *conta vinculada* would be provided, money for leasing office space where needed, equipment, as well as support for management plans. 3 years is recommended as a suitable amount of time to staff up, develop a management plan, work effectively with local communities, and begin showing trend data on measurable results.

Level 2: Effective Management in Place. For those who are able to show improved results in the first 3 years, they will then move into Level 2, similar to Component 2.1 in Phase 1, which will have a new ceiling level that includes all the operational funds from Class 1 plus "obras" (the assumption being that after 3 years of effort there will be a better sense of the best location for office placement as well as what type of facility would truly be needed). Again, a benchmarked result would be needed here showing real results on the ground prior to moving to "consolidation". The length of Class 2 would need to be at least 2 years to build appropriate infrastructure but given the need to continue staffing up, probably 3 years is optimal as well.

Class 3: Consolidated. The UCs that again meet established criteria are provided with ongoing FAP funds. These UCs have received operating support for the previous 6 years, have had an opportunity to make larger investments, and are now consolidated and receiving "recurrent costs" through the FAP. FUNBIO is also analyzing expenses to date to determine some projections as to how often new equipment is needed per UC in the Amazon, in the hope that some set equipment replacement could also be incorporated in the FAP, making it even more responsive to UC needs.

The proposal above differs substantially from Phase 1 as it allows "failure" and recognizes that some ARPA sites will drop off and not advance to the next level. It also sets financial and time bound ceilings – making the transition to the FAP a positive moment. More selective criteria also serves to open doors to other UCs as ARPA is in the fortunate position to be able to pick and choose which UCs will receive management support. It further serves to limit the FAP to UCs that are producing conservation results and, by extension, have the needed political support from their management agencies.

2) ENSURE STRONGER PARTNERSHIPS WITH ENVIRONMENTAL LAW ENFORCEMENT AGENCIES

A major difference in the success of on-the-ground conservation actions is the presence, or lack of, law enforcement capacity to follow up on key threats. UC managers and staff spend

most of their time educating local community members about environmental laws, organizing appropriate use agreements with communities, and developing signed agreements on levels of hunting, deforestation permits etc. with the Conselhos. When these agreements are violated – by residents or non-residents – staff can report environmental crimes, but do NOT make arrests or actively fine people for illegal hunting/fire setting etc. In many situations local people also report environmental crimes as their livelihoods are jeopardized by commercial hunters, fishermen, miners, or illegal timber cutting.

Once persistent environmental crimes are reported, UC staff try procure enforcement "vigilantes". Interestingly, this process differs by state, and even by site, whether the vigilantes are local police units, special environmental "military police", or even private contractors. ***What is clear is that there has to be an enforcement follow up or no amount of education, shared management, or warnings will have an effect.*** The ARPA project currently does not have this relationship as a key criterion in its acceptance of new sites or for consolidation, but it was consistently mentioned by UC staff as a major impediment/help to their ability to reduce threats in their region.

3) IMPROVE THE DEVELOPMENT OF MANAGEMENT PLANS FOR THE UCS.

Brazil recognizes the need for management plans in each of its protected areas (Lei 9.985 of 2000) but there are a number of different guidelines for developing management plans at the state and national levels. While a few satisfactory management plans were developed in ARPA UCs,[47] as a whole it became clear to the ARPA team that many plans in Phase 1:[48]

- Took an unreasonably long time to be researched and written. (Maria Olatz Cases Vega documented 5 protected areas that have had work plan design underway for over 3 years);[49]
- Cost far more than is reasonable or comparable with other countries. Terms of Reference often led to national bids by large teams with few controls over the number of field trips, biological qualifications, or guidance on critical information needs;[50]
- Provided a high degree of detailed technical information that was irrelevant for prioritizing and directing management activities;
- Did little analysis of the communities outside of the UC so the understanding of how communities viewed and used the UC was lacking; and
- Were not used by UC staff as demonstrated through the lack of correlation between the completed Management Plans and the staff-submitted yearly operational plans (POA).[51]

These serious problems are constraining UCs from advancing their management capacity. The current ICMBio template needs to be made more flexible to allow clear common sense guidelines to accelerate on-the-ground management in ARPA sites. Recommendations provided by Olatz Cases, particularly on the need for Adaptive Management approaches are very relevant for Phase 2.[52] ***Recognizing that we will never know all the biological intricacies of a given protected area, management plans need to be simplified to provide guidance for managing and alleviating known threats – they should not be***

[47] Vasconcellos Section 3.2 notes a successful Management Plan developed in 18 months for Rio Trombetas.
[48] Olatz Cases, p 5 and reiterated in interviews with both UCP and Funbio staff.
[49] Ibid p 13.
[50] Ibid, p 11.
[51] Vasconcellos, Section 3.2.
[52] Olatz Cases, p 24.

exhaustive ecological surveys. She follows this recommendation with the proposal to use The Nature Conservancy's "Conservation Action Planning" (CAP) tool. The CAP process (also called the Open Standards for the Practice of Conservation as used by WWF, The Nature Conservancy and many other conservation organizations) provides straightforward and useful guidelines for developing effective management plans.[53]

DIAGRAM D.2 CONSERVATION ACTION PLANNING 10 STEP PROCESS[54]

By instituting a clear management action-oriented methodology such as CAP, ARPA can showcase the utility of effective management plans to the wider MMA – an enormous contribution to effective conservation within the SNUC system.

Another potential response is using a GTZ intervention – Gestão por Resultados (GPR) – designed to help UC managers develop needed skills and improve the overall results orientation. This pilot program, based on Baldridge National Quality Programs, was launched with 7 'strict protection' ARPA UCs to develop more specific results-oriented goals and strategies. It has received very high reviews from participants. An investment in GPR, CAP or other process will require having a staff member trained in the process at the UCP to help review and expedite effective management planning. Training and technical assistance provision will have to be streamlined across 60 UCs (and more in Phase 2) and tied into ongoing evaluation of UC progress for reaching realistic conservation and sustainable use goals. This decision should be made quickly in Phase 2 with appropriate guidance to the field – and tied into suggestions in Section G to enable contracting highly qualified consultants that are currently excluded based on procurement rules and the ICMBio template.

[53] Conservation Measures Partnership.
[54] The Nature Conservancy, Conservation Action Planning

4) REWORK OR TERMINATE INFRASTRUCTURE PROJECTS FOR ARPA UCS

Very few infrastructure projects have been approved to date.[55] Requests for constructed facilities are very high cost with few expenses benefiting local communities. In the worst cases, architects from outside the local area are proposing high-cost facilities built by national businesses unfamiliar with Amazonian reality. Given the huge amount of time and frustration going into designing unique facilities, a standard prototype approach is recommended. Rondônia currently has three prototypes that can be selected for state parks – a very basic model, a model with more of a community meeting room, and a larger 2 story facility that can house multiple researchers and training events. ARPA should follow suit and create a few prototypes that meet engineering requirements, respond to Amazonian reality, and can be built as much as possible with local materials and local employment. In a parallel proposal, GTZ is looking at prefabricated designs that could be managed through the current procurement process and then transported as needed.

More flexible funding guidelines for infrastructure projects to provide incentives for locally sustainable infrastructure projects would greatly accelerate construction in Phase 2, build goodwill with local communities, and create projects that fit the local reality and can be maintained. An ARPA work group was formed, but has not met regularly and needs to be re-energized with clear goals and timelines prior to spending any more time or money on infrastructure projects. ***If no resolution is found, the infrastructure component of ARPA should be shut down as it is currently not a credit to the program, is creating headaches and unrealistic expectations for UC staff, and the current process will lead to unwarranted and wasteful expenditures.***

While the above recommendation sounds harsh, there are other means of resolving UC staff needs if a successful infrastructure program cannot be developed. For short term needs, cheap rentals of facilities and houses in surrounding communities are available. There are also examples of UCs, such as Guajará Mirim, which used *conta vinculada* funds for maintenance activities to successfully refurbish an old facility. Many UCs are also hosting Conselho meetings in the largest municipal center – minimizing the need to build infrastructure with large meeting facilities.

5) DEVELOP THE OPERATIONAL CAPACITY TO CONTRACT LOCAL PEOPLE

An administrative snag with Brazilian employment law arose during Phase 1 that impacts UC management efficiency. UC staff cannot contract individuals for ongoing repeat assignments (e.g. a boatman to regularly transport UC personnel to different sites) as it can violate Brazilian employment law if the individual is hired over more than a 3 month period. Thus UC managers are constantly switching boat drivers, cooks, office cleaners etc. An unexpected result, beyond the administrative headaches, is that boat maintenance etc. is more problematic as no one person is responsible for regular maintenance activities. These jobs are critical to effective UC functioning – the staff must be able to visit and stay in local communities – and the income is a big boost to the UC's reputation among local residents.

The proposal, mentioned by many interviewees is to train local community members to establish cooperatives or micro enterprises that in turn can be hired by UC managers, and others, as needed for jobs such as:

[55] ARPA, Relatório de Actividades 2007-2008. pp 16-17.

- Transporting people and goods
- Handiwork - Clearing trails, posting signs, maintaining buildings
- Construction – Constructing UC facilities
- Cleaning/Cooking – Caring for UC guests

With an official business classification – local people can be contracted on a more permanent basis without violating employment law. As importantly, business formation provides community members with the basic infrastructure to adapt to new economic opportunities so that tourism, sustainably harvested foods and materials, and other ideas can flourish. **Finally, it is a solution that uses the strengths of the partners in meeting the needs of ARPA and in promoting economic development opportunities in local communities.** The UC managers know who the responsible contractees are and FUNBIO and the *conta vinculada* have the ability to directly pay cooperatives and micro enterprises. There are also Brazilian agencies that specialize in micro-enterprise development in the Amazon such as SEBRAE (Servicio de Apoio as Micro e Pequena Empresas) that FUNBIO could approach to help manage this. Just as the donors displayed great flexibility in approving the *conta vinculada* – this approach holds promise for a way to help manage the ARPA project more efficiently, improve relationships with local communities, and be able to do one thing at scale (support official business registration) that would advance community economic development.

In an effort to find funding to manage a new recommendation a number of people proposed transferring the current funding from Subcomponent 2.3 to manage this task. This is a fund for local income generation managed by FUNBIO. It got little traction in its first few years and experienced staff turnover. By late 2007 however there was a plan to assist communities around "strict protection" UCs. This approach is consistent with the belief of many scholars that conservationists must promote an environmental agenda outside of parks: "Protected areas remain our best hope for conserving substantial tracts of habitat, but only in recent years have some protected areas begun to foster better environmental stewardship in the surrounding region."[56] In 2008, 12 projects such as family farm plots, leadership development, greenhouses for native tree seedlings, fish processing, and other livelihood/income related capacity building projects were funded around 6 UCs. According to the Mission of December 2007 the eligibility criteria will be broadened in Phase 2 so that these types of projects can take place among all ARPA UCs, making this a potentially large part of ARPA.[57] The new approach is being well managed and has strong supporters among ARPA staff.

However, ARPA must make hard decisions as to which components to continue investing in. The need to contract local service providers is urgent for effective management in Phase 2. The current strategy in 2.3, while addressing a paramount issue – economic livelihoods – raises a number of concerns for the long term:

- UC management staff are not closely engaged with the activities of this program – it is managed by FUNBIO. As a result, there is potentially less leverage for UC management when the communities perceive funding coming from a different pot;
- There is no framework for the 12 groups to learn from each other – to share information within a wider system – or for ARPA to develop a systematic learning

[56] Naughton p 239.
[57] World Bank, Missão Dezembro de 2007, p 7.

opportunity for engaging local communities when so many different types of income-generation are funded;

- Taking this approach to scale will require a major increase in ARPA operating funds to reach every UC. Then there is the issue of every community – an extraordinarily ambitious undertaking even beyond ARPA's ambitious aims.
- Community economic development programs need time to develop. Four years of support is considered necessary by the project manager and community development literature indicates investments of twice that long are often required.

The project manager would like to see continued funding for pilots that have begun well and are reaching their benchmarks. This could be considered for Phase 2 as an additional learning contribution from ARPA to the wider SNUC system, but would be dependent upon resource streams. During this time period FUNBIO could approach SEBRAE and other micro enterprise promoters and determine if the idea of enhancing micro-enterprise creation has merit for advancing ARPA management goals and contributing to community economic livelihoods in a relatively streamlined fashion.

The successes of Components 1.3 and 2 are substantial and particularly in the difficult Amazon context, represent substantial breakthroughs in MMA and state management capacity. Building on the successes and addressing ongoing bottlenecks will lead to additional significant advances in Phase 2. In addition to the issues raised below, there are constraints due to administrative or personnel policies that directly impact UC management. Administrative

SECTION E

issues such as Staffing Policies, *Conta Vinculada* Ceilings, and Procurement Bottlenecks are covered in Section G.

ENSURE THE LONG-TERM FINANCIAL SUSTAINABILITY OF ARPA PROTECTED AREAS

C O M P O N E N T 3

Major Findings

FUNBIO has lead responsibility for the implementation of this component and the administration of the ARPA Trust Fund. ***The establishment of the Trust Fund, coupled with major successes in advancing its capitalization, merit recognition of this component as successful in Phase 1.***

TABLE E.1 KEY OUTPUTS FOR COMPONENT 3 FOR ARPA PHASE 1[58]

OUTPUT	ASSESSMENT 12/08
Make operational and capitalize a PA endowment	■ Capitalization has been the priority in Phase 1. To date US$23.4 million has been received from major donors GEF and WWF-Brasil with US$37.2 million committed.
Implement an institutional arrangement with FUNBIO to administer the protected areas endowment fund (FAP)	■ FUNBIO effectively administered the Trust Fund during Phase 1. Internationally donated funds are placed with an asset manager and maintained in US$. 2004-2008 averaged a 14% return over inflation including the losses of late 2008.[59] Independent audits of FUNBIO are performed yearly.
Studies and subprojects for revenue generation implemented	■ Research indicated highest potential financial transfers coming from environmental compensation, green lottery and carbon fund transfers for avoided deforestation. No subprojects launched.
Study for establishment of an endowment fund for "sustainable use" PAs completed	■ A 2004 study (Fuschetti and Perl) indicated the need for a fund of US$240 million. This study needs updating given the number of "sustainable use" PAs being created. ARPA partners are working to secure the capitalization of the Fund and identify additional sources to manage the long-term UC sustainability.
Cost-recovery strategy and program implemented for selected PAs	■ Revenue-generating pilot projects at individual UCs were dropped and attention shifted to analyzing newer financial mechanisms. The 3 determined to be of greatest interest to ARPA are: Environmental compensation; Green lottery; and Carbon finance.
Five PA concession agreements finalized for the implementation of financial mechanisms	■ No concession agreements were finalized. Concessions such as UC entrance fees, ecotourism etc. may be possible in a few UCs, but as a system the analysis indicates that this has low feasibility.
Improved legal framework supporting PA	■ Administrative improvements were mentioned in Components 1 and 2. With regard to strengthening the legal framework of the

[58] World Bank, PAD. p 63.
[59] FUNBIO, "Apropriação – FAP (no exterior) em US$."

administrative and financial management	Trust Fund, Grau Neto was contracted to review ARPA and FUNBIO's legal standing and makes recommendations for the type of agreements that would be needed with the government for different types of funding opportunities such as environmental compensation.

The major donors to ARPA, with the exception of the Government of Brazil, have all made serious commitments to the Trust Fund. Even the global financial crisis while dealing a heavy blow to the FAP book value (7.81% loss in 2008 after inflation) made up much of this loss with the exchange value of the strengthening dollar.[60]

Ongoing contributions from the current major donors and other philanthropists will not be as effective in Phase 2 given changing global conditions and the increased number of UCs entering the ARPA program. The financial mechanisms pursued in Subcomponent 3.2 have huge potential for contributing to the long-term financial sustainability of ARPA UCs. Developing this diversified mix of financial mechanisms is the priority for Phase 2. However, the preferred financial options such as environmental compensation will require much greater engagement of the Government of Brazil and state governments in this component in Phase 2.

EFFICIENCY

The overall operational cost of Component 3 was R$889,016, just over 1% of the overall ARPA budget, of which almost all of it was used for subcomponent 3.2 - research studies on future sources of financial sustainability. Commissions for fund managers in Component 3.1 were paid for from revenues generated by the endowment. The operational funding for Component 3 was managed by FUNBIO and paid for by GEF. While many donors made big financial contributions to the ARPA Trust Fund, as shown in Table E.2, only GEF supported the operational aspects of Component 3.

Long-term efficiency needs to be watched however, as FUNBIO's administrative costs to execute ARPA are currently covered in Component 5. These costs will be transferred to the endowment once the other components are concluded. If FUNBIO can simplify administration, as recommended in Section G, with less rigid donor procurement rules and ongoing use of the *conta vinculada* then the long-term administration of the FAP can be managed at a very low overhead rate. FUNBIO has set a goal of 12% which would be a very acceptable rate for trust fund administration.[61]

[60] ARPA, Relatório de Actividades 2007-2008. p 34. This is as of late 2008 – obviously ongoing disruptions in the market will continue impacting the FAP.

[61] Discussion with Fabio Leite – 23/2/09 in FUNBIO offices.

ESTABLISH ARPA TRUST FUND
SUBCOMPONENT 3.1

BACKGROUND TO SUBCOMPONENT 3.1

The ARPA program commits to providing long-term financial support to UCs that are "consolidated", meaning they have effective management systems in place that can be verified against established criteria agreed to among the ARPA partners. Within ARPA, consolidation funding for "strict protection" UCs has been negotiated to mean funding for the recurrent costs of conservation activities provided that the MMA/State continues paying for staff and basic infrastructure services such as utilities. Recognizing that funding from GEF and other major donors will decrease over time, long-term UC financial sustainability is being pursued through 2 subcomponents:

3.1 Establishment of the ARPA Trust Fund or FAP (Fondo de Areas Protegidas), an endowment fund built to benefit "strict protection" UCs – and now being asked to incorporate "sustainable use" UCs as well; and
3.2 Preparation of studies and subprojects aimed at defining and testing appropriate revenue-generating mechanisms for long-term UC sustainability.

The ARPA Trust Fund is managed by FUNBIO and capitalization of at least US$29 million[62] has been the priority during Phase 1.

IMPLEMENTATION OF SUBCOMPONENT 3.1 IN PHASE 1

The major donors all met their commitments to capitalization for Phase 1 with WWF-Brasil exceeding their US$5 million commitment by US$2 million. The PAD goal of US$29 million has been met albeit the German Government funds are awaiting approval by the Brazilian Senate to be transferred to the ARPA account.

The deposits to date serve as the initial contribution to what is estimated to be a needed endowment fund of at least $US240 million for the long-term management of ARPA "strict protection" UCs.[63] Criteria has now also been set for "sustainable use" UCs albeit the financial commitment for long-term support is still minimal. It should be noted that Phase 1 had no expectation of Government of Brazil contribution to the trust fund, or of state governments.

[62] World Bank, PAD p 31.
[63] Fuschetti and Perl, p 1.

TABLE E.2: COMMITMENTS AND INVESTMENTS IN THE ARPA TRUST FUND DURING PHASE 1[64]

	Funds Committed US$	Funds Invested US$
GEF 3	$14,500,000	14,500,000
WWF Brasil	$7,782,204	$7,782,204
German Government*	$13,000,000	0
O Boticário^	$1,000,000	$600,000
Natura^	$1,000,000	$600,000
Total	US$37,282,204	US$23,482,204

* The German Government has made a commitment of €10,000,000. This is an estimate of worth as of 1/16/09 with an exchange rate of €1/US$1.30. Final transfer requires Brazilian Senate approval.

^ Natura and O Boticário are two private companies who have made a multi-year commitment to the FAP. Their deposits have been in Reais that are kept in a separate Brazilian FAP account.

FUNBIO effectively established the ARPA Trust Fund during Phase 1 in compliance with World Bank requirements.[65] Donor funds can be earmarked, managed in separate funds or conjoined, and are spent in accordance with donor approved yearly operating plans. FUNBIO is managed by an active Governing Council and all funds are placed with an asset manager. During Phase 1, the portfolio performed well relative to its benchmark indices for the 05-07 periods. After accounting for inflation, the portfolio returned 1.57% in 2005, 11.8% in 2006, and 10.28% in 2007.[66] During 08 and the stock market crisis of Fall 08 FUNBIO moved its account from AIG management to Itaú Luxembourg. Its paper losses were over 18% due to the stock market fall however, the strengthening of the US Dollar against the Real led to a 19% rebound.[67] Like endowments the world over, FUNBIO Board members and fund managers are continuing to carefully review their investment portfolio and strategy for long-term growth in the current economic context.

There are plans in place – including the ARPA Trust Fund Prospectus – for dramatically improving the capitalization of the Trust Fund in Phase 2. Many bilateral and multilateral donors will still see the strength of an endowment fund as appealing. Nonetheless, there are already indications of private foundation hesitation to invest in endowments in the face of the current financial crisis – and there are always other demands for philanthropic dollars. Thus, marketing the Trust Fund as a transparent and independently managed means of slowly disbursing carbon market funds or environmental compensation for big infrastructure projects may be a more appealing model for donors and corporations in Phase 2.

[64] FUNBIO, FAP Capitalization in $US for ARPA Phase 1
[65] WWF - FUNBIO, ARPA Trust Fund Prospectus. p 13
[66] FUNBIO, "Apropriação – FAP (no exterior) $US." 2004-2008.
[67] ARPA, Relatório de Actividades 2007-2008. p 34.

RECOMMENDATIONS FOR THE ARPA TRUST FUND IN PHASE 2

1) **Commit FAP funding only once established operational consolidation criteria have been met, conservation results are clear, and UCs have concluded their eligibility for ARPA operational support (see Section D Recommendation 1).**
   The program in Phase 2 needs to eliminate the "perverse incentive" wherein the best managed UCs resist moving to the FAP. UC managers are concerned that there will be less flexible resources available to them given that there is no current cap on either time or funds in the ARPA operational support phase. Simultaneously, the mechanism should exclude UCs that are not meeting criteria from FAP eligibility. Setting higher standards provides a greater sense of security to donors of the value of long-term funding and prioritizes linking well-managed UCs to funding sources. Prior to committing FAP funding to UCs in Phase 2 this system needs substantial refinement. An additional recommendation that is being considered is to include replacement equipment within FAP permitted expenses – a big boon over time to UCs that will need equipment upgrades.

2) **Ensure Brazilian Government partners (federal and state) make substantial contributions to the FAP.**
   ARPA is a program of the Government of Brazil. The FAP is the best mechanism established to date for ensuring long-term funding to individual UCs. The Government of Brazil has made no financial contributions to the Fund nor initiated fundraising efforts – in sharp contrast to other Trust funds in the hemisphere. Interviews with MMA staff indicated government hesitation to invest in a privately managed fund. But the results speak for themselves as they also acknowledged that no other Brazilian government fund has a history of disbursing directly to parks. The Government of Brazil and state governments' roles in helping to fund the long-term financial sustainability of the UCs through the FAP needs to be stronger in Phase 2. The governments – both federal and state – have huge opportunities to steer substantial global carbon investments such as the Amazon Fund[68] or environmental compensation funds towards the FAP as ARPA is a proven project that can meet both government and donor goals.

3) **Update Capitalization Plan**
   ARPA's successful efforts to help create so many new UCs, particularly 'sustainable use" UCs, was not anticipated in the initial ARPA Trust fund design. The capitalization plan of 2004 by Fuschetti and Perl, that began addressing these issues, needs further refinement as the number of new UCs is expected to continue to grow in Phase 2.[69] Sustainable Use UCs are requesting the same opportunities for long-term sustainable funding that the "strict protection" UCs are entitled to, but are currently budgeted to receive a smaller amount of recurring costs.[70] The current rationale for the smaller budgets for 'sustainable use UCs' – greater volunteer commitment from local communities – is an unproven hypothesis and a more conservative approach is recommended.

[68] The Amazon Fund was launched by President Silva to generate $21 billion for avoided deforestation in the Amazon over the next 13 years. Norway is the first committed donor with $1 billion commitment conditional upon reduced deforestation data.

[69] Cabral, p. 12 in the mid-term review also supported the need for an additional analysis of the impact of so many sustainable use reserves on the financial capacity and budget of the ARPA Trust Fund. The World Bank Mid-term Review Mission in 1/06 also raised this issue in Points 62 and 63.

[70] WWF – FUNBIO, ARPA Trust Fund Prospectus. Estimated projections are for US$165,000/year for "strict protection" UCs and US$50,000/year for "sustainable use" UCs. p 5.

There are a number of concrete recommendations for prioritizing areas, setting ceilings on spending etc.[71] but the partners have yet to fully set these in place to update capitalization needs. The good news is that with the data from ARPA expenditures over the past 6 years, FUNBIO has solid financial records that can serve as a base for projecting spending needs for UCs. Another issue that needs to be incorporated into this projection is the need for ongoing equipment purchases for UCs. Again, the ARPA experience is helping to provide a baseline for knowing how frequently boat motors and other equipment need to be replaced for successful UC management, an investment that should be considered in ongoing FAP funding, and is of interest to a number of donors.

4) **Support main recommendations from the Spergel study.**
A recent independent evaluation of the Trust Fund raised a number of issues on future governance that are being reviewed by a partner working group in preparation for Phase 2.[72] Four clear recommendations were made that are supported in this evaluation:[73]
   a. Strengthen the role of civil society in FAP governance;
   b. Obtain a significant cash contribution to the FAP from the Government of Brazil;
   c. Allocate to FAP the voluntary international payments for REDD and other environmental services which are provided by ARPA protected areas; and
   d. Define a set of clear fundraising targets, strategies and actions for FUNBIO (and/or other organizations) to carry out for FAP,

This evaluation supports the above recommendations, but prioritizes *b* and *c* given the need for higher level Government of Brazil integration and commitment to the FAP.

DEVELOP REVENUE GENERATING MECHANISMS FOR UC SUSTAINABILITY
SUBCOMPONENT 3.2

BACKGROUND TO SUBCOMPONENT 3.2

In the design of Phase 1 every UC was expected to develop a financial sustainability plan built in part with revenue-producing partnerships with private concessions. Ten pilots were anticipated to be launched using this approach. "Strict Protection" UCs are still expected to develop a proposal for financial sustainability as part of the consolidation criteria.[74] The thinking was redirected however, after ideas such as ecotourism, concession agreements, and park entrance fees were determined to have poor feasibility in most Amazon UCs. ARPA staff are now more focused on identifying larger opportunities for funding multiple UCs.

IMPLEMENTATION OF SUBCOMPONENT 3.2 IN PHASE 1

After a number of failed starts, FUNBIO redirected their efforts in Subcomponent 3.2 to look at wider funding opportunities such as environmental compensation, avoided deforestation, and

[71] World Bank, Missão de Revisão de Meio Termo pt 63.
[72] Spergel, Preliminary Report on the FAP raises issues about the long-term governance of the fund once the ARPA project is over and provides a set of options that need legal review and partner discussion.
[73] Ibid p 5.
[74] WWF-Funbio, ARPA Trust Fund Prospectus p 5.

mitigation. Given the increased international attention on climate change, the important role of forest-based carbon in greenhouse gases, and huge development projects being built in the Amazon – large new funding opportunities were surfacing with environmental compensation and carbon funds. These approaches have huge potential for supporting protected areas – just one current project's environmental compensation payments are on the order of R$40 – 61 million.[75]

Subcomponent 3.2 has thus changed dramatically over Phase 1 from a plan for income generation at individual UCs to research on the wider issue of other forms of payments and financial transfers that could support large numbers of UCs within the ARPA system. While this transition took time, by the end of Phase 1, FUNBIO had convened the ARPA partners to determine new priorities, managed 3 consultants for in-depth analyses of a number of possible funding sources, and identified the following as the 3 biggest opportunities for ongoing financial support to ARPA projects:

1. Environmental compensation
2. Carbon transfers for avoided deforestation
3. "Green" Lottery funds

Lottery funds will be the hardest sell as there are many sectors of society that can take advantage of these funds. Grau Neto also raises doubts as to the political viability of getting access to lottery funds albeit the legal standing is in place.[76] ***Given that the other 2 options are legally required to benefit standing forests – they have a stronger chance of supporting the ARPA UC system in the short term and with less competition from other interests.*** Both environmental compensation and carbon funds require high levels of political support from both state and federal agencies in capitalizing the trust fund and directing funds to the long-term management of UCs in the Amazon.

Environmental compensation

Environmental compensation is seen as the best option by the ARPA team albeit new payments are currently suspended until the MMA develops a more appropriate system for assessing compensation.[77] SNUC Law nº 9.985/00 directed environmental compensation for projects with significant environmental impact to support creation and management of UCs. Given a number of major projects across the Amazon, and opportunities such as World Bank engagement in both IIRSA and ARPA, there should be many opportunities to support UCs with environmental compensation funds. An immediate opportunity is being explored with Santo Antonio Hydroelectric Installation taking place on the Madeira River. Madeira Energia S.A. is working with FUNBIO to review different possible investment opportunities to contribute to the conservation of protected areas, particularly those near the concession.

[75] Madeira Energia. S.A. "Proposta para um modelo inovador para aplicação dos recursos provenientes da compensação ambiental da AHE Santo Antônio". p 3.

[76] Grau Neto, Werner, "Relatorio Final" p 2. Available through FUNBIO.

[77] Spergel p 36 referring to a Supreme Court ruling of April 2008 which suspended compensation payments until the MMA can measure specific impacts of new infrastructure projects.

Environmental compensation will usually be directed to UCs directly impacted by the new infrastructure or in the immediate watershed or biome with an emphasis on "strict protection" UCs. However, as is being discussed with Madeira Energia S.A., if enough funds are available, additional UCs that are further removed from site impacts could also benefit. Funds can be provided for both immediate operation as well as long-term endowment such as the FAP to ensure that conservation benefits are maintained over time. These types of opportunities should be the focus of Component 3 activities by all of the ARPA partners in Phase 2.

Carbon Credits

There are huge opportunities in carbon credits with the upcoming post-Kyoto treaty which is expected to incorporate forest-based carbon. The carbon market has the potential to transform the way that tropical forests are valued, thus changing the perverse incentives to burn if benefits reach local people and/or strengthen enforcement capacity. The carbon market is currently generating $30 billion / year and is projected to reach $100s of billion or more.[78] This indicates that there is the potential for sufficient and sustainable sources of funding to make a real and sustained difference not only for ARPA UCs but wider deforestation issues in the Amazon. Preserving standing tropical forests allows governments, corporations, and financial institutions to take immediate action in reducing greenhouse gas emissions while also preserving areas of high biodiversity importance. ***This is a huge opportunity to have sufficient funding to generate economic benefits in the protection of natural habitats that, coupled with the increasingly notable ecological costs of habitat destruction, outweigh the economic drivers of deforestation.*** ARPA is obviously at the leading edge of showcasing ways to preserve these standing forests now.

The ongoing ups and downs in the negotiations leading to the Copenhagen agreement coupled with the Brazilian government's current position against REDD funding, are constraints on ARPA's ability to launch into pilot programs. Currently Amazonas and Acre are both taking leadership positions in opening up dialogue on future REDD activities and there are numerous opportunities for ongoing advancement with the voluntary carbon market.

RECOMMENDATIONS FOR REVENUE GENERATING MECHANISMS IN PHASE 2

The global economic and environmental climate has changed dramatically as ARPA moves into Phase 2. While private philanthropy is anticipated to decline during this economic period, there are more international resources being committed to REDD and environmental compensation mechanisms looking for effective programs that can showcase Amazonian conservation on the ground.

Over the past 30 years, developing countries have rapidly expanded their protected area systems recognizing the unprecedented loss of global biodiversity, high rates of rainforest deforestation, and worldwide goals for increased environmental stability in an era of increased awareness of human impact on the planet. These global concerns have been accompanied by increased resource availability from private foundations, bilateral and multilateral assistance programs to assist developing countries in establishing effective protected areas. These trends have been further reinforced through the Millennium Development Goals, the Convention for Biological

[78] Schwartzman et al, 2007, *Getting REDD Right* p 5.

Diversity, and increasingly today in the negotiations to include forest-based carbon in the post-Kyoto treaty.

In addition, what was increasingly apparent in 2002 during ARPA project design is even more apparent today. The Amazon plays an exceptionally important role in the future of global warming. Tropical forests are the largest terrestrial store of carbon and, after coal and oil, the third-largest source of carbon emissions – estimating to contribute over 18% of current greenhouse gas emissions.[79] When including industrial emissions along with emissions from deforestation, Brazil is the fourth largest source of carbon emissions in the world, right behind the US, China and Japan.[80] The importance of the Amazon for providing ecological services to Brazil and the world has never been clearer. Thus new funding will be forthcoming for ARPA in Phase 2, but less from traditional philanthropic sources and more from investors who need to quantify clear results from their investments.

1) **Use the ARPA Trust Fund for managing environmental compensation funding directed to specific UCs.**
   A major bottleneck to effective compensation funding is linking disbursements to conservation. The government has a poor record of expending funds for conservation through the Caixa Econômica or other government bodies.[81] The transparency of the ARPA Trust Fund and FUNBIO's proven ability to get funding to the field is an exciting contribution for interested business partners. The ARPA public-private partnership can showcase effective environmental compensation strategies for SNUC in Brazil.[82]

2) **Encourage donations from the voluntary carbon market in the FAP**
   Donations such as the Amazon Fund that support avoided deforestation could be a major contribution to the FAP. There are huge possibilities in making the link between ARPA success and the Government's need to show progress in reducing deforestation as well as transparent fund management.

3) **Encourage a few well-managed ARPA UCs to be early REDD pilot projects**
   ARPA, as a leader in international conservation efforts, has the opportunity to choose a few UCs for early pilot projects for applying REDD (Reduced Emissions from Deforestation and Degradation) approaches to valuing these tropical forests and showcasing verifiable reductions in deforestation and greenhouse gas emissions. While the federal government policy toward REDD is currently not supportive, some state governments such as Amazonas are passing state laws on climate change and developing policies to manage REDD funds and enable pilot projects to get underway.[83] There will be substantial legal and technical issues to tackle to launch forest carbon projects in ARPA UCs – but many are issues that ARPA has been tackling for six years. Examples of ARPA expertise include:
   - Clarifying land title;
   - Applying fundamental principles of social justice and environmental integrity, as understood within the UNFCCC and more broadly, to support sustainable incomes to local people dependent upon forest products;
   - Engaging local people in negotiations;

[79] Stern

[80] Instituto Socioambiental p 370.

[81] Ibid p 37.

[82] This hope is also supported by Frickmann Young in his analysis of the future of environmental compensation funds.

[83] Amazonas, Centro Estadual de Mudanças Climáticas

Areas that will challenge ARPA but that will also keep it as an incredibly high profile innovator in world conservation will include:

- Managing the liability in case of project failure or under-delivery of credits.
- Developing the ability to measure forest-based carbon to a reasonable standard;
- Measuring deforestation on a national level to a reasonable standard.

ARPA partners such as WWF-Brasil are already building capacity to help launch pilot forest carbon projects with state governments and could serve as important partners in this aspect of ARPA's future as well.[84] The technical papers done for FUNBIO to look into the feasibility of this mechanism indicate the huge potential coupled with the absolute necessity to have support from government partners.[85] There is strong potential for early REDD pilot projects to be funded through voluntary carbon market mechanisms in the short term.

4) **Appoint a counterpart within the MMA for Component 3.**
In Phase 1 the Brazilian government did not have a major role in Component 3 and therefore there is no counterpart established for working with FUNBIO and other ARPA partners. Given the importance of this component going forward, the need for strong political support within the MMA for long-term sustainable funding, and the extensive coordination anticipated – it is highly recommended that the MMA ask a Director level staff member to work with the ARPA partners on Component 3.

ARPA provides a proven demonstration of how standing forest can be preserved in the Amazon. Funding mechanisms are available and the importance of the Brazilian Amazon to world environmental health is established. ***Phase 2 is the test of how the ARPA partnership***

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can mobilize major new sources of funding to create a permanent breakthrough in conserving both the standing forest and the biodiversity of the Amazon by building on the foundation blocks of ARPA's established capacity.

[84] Soares-Filho et al.
[85] Cabral, Atividades sobre Prospeccão, p 6.

ESTABLISH A BIODIVERSITY MONITORING AND EVALUATION SYSTEM AT THE PA AND REGIONAL LEVELS

COMPONENT 4

MAJOR FINDINGS

A project of the size and importance of ARPA clearly requires an ongoing effort to determine if the strategies and activities are advancing goal attainment. ***The monitoring and evaluation (M&E) results to date, as managed by ICMBio, are disappointing and provide little help in determining how effectively ARPA is achieving its goal.***

TABLE F.1: KEY OUTPUTS FOR COMPONENT 4 IN ARPA PHASE 1[86]

OUTPUT	ASSESSMENT 12/08
A monitoring and evaluation system at PA and regional levels, including complete implementation in five existing protected areas.	■ Protocols were developed for standardizing data across UCs. Field work was done in 6 UCs. Some monitoring stations for automatic data collection have been installed. Little comparative data is available and there is no current capacity to link the data generated to support decision making within ARPA. No replicable cost-effective monitoring system has been developed.
Training methodology and manuals developed and applied	■ 6 monitoring courses were held to standardize specific research methods.

While the effort to develop a complex and nationwide set of protocols was justified, the effort has failed to develop an effective M&E system for ARPA.[87] No replicable methodology has been developed within the 6 pilots that are cost effective or timely. No reports are available that answer strategic questions on threat, management, or priorities between UCs, etc. No remote sensing application or partnerships have been put in place to specifically monitor ARPA sites.[88] Potential long-term benefits from the creation of protocols could serve ICMBio and hopefully

[86] Based on the outputs indicated in the Detailed Project Description of Annex 2. World Bank, Project Appraisal Document (PAD). p 65.

[87] Much of the information in this section was provided by ICMBio in their report "Sistema de Monitoramento Ambiental Para Unidades De Conservação – Simbio".

the SNUC system and ARPA over time. These have yet to be made public however – expected release is April 2009 – so no evaluation was possible.

EFFICIENCY

ICMBio spent R$2 million of GEF funds on this component or about 2.5% of the overall ARPA operational budget. Substantial Government of Brazil counterpart funds were invested in maintaining the core ICMBio staff, bringing together numerous government partners, and covering the costs of many of the researchers. There are no financial reports to indicate how much the Government provided. This was a relatively low cost GEF investment meant to support a wider ICMBio M&E effort. However, ICMBio did not advance their SIMBIO system with other funding in other geographies, as had been initially anticipated. ***To date the investment has failed to provide any real monitoring and evaluation capacity to the ARPA program. As a result, efficiency has to be considered poor.***

Staff report substantial funding inflexibility which affected efficiency. The problems seem to stem from 2 issues that need to be addressed in Phase 2:

1) FUNBIO was authorized to establish the *conta vinculada* for UC staff but not for centrally-based Brasilia ICMBio teams. At this point, FUNBIO has enabled Brasilia-based staff to travel on UC accounts when working in specific UCs, but ICMBio staff based in Brasilia will need easier funding access for project implementation in Phase 2.
2) About 50% of the M&E budget was used on equipment (monitoring stations etc).[89] The purchase of "goods" requires very stringent procurement procedures creating substantial delays in getting equipment.

These two issues are discussed further in Section G on administrative recommendations.

DEVELOP A MONITORING AND EVALUATION PROGRAM

BACKGROUND TO COMPONENT 4

In an effort to ensure greater objectivity and build MMA capacity the PAD requested that: "Within MMA, a Project Monitoring and Evaluation (M&E) unit will be established that will be independent of the Project Coordination Unit. This unit will be responsible for monitoring and evaluating the Project technically."[90] Originally, in IBAMA this unit became part of ICMBio in 2007. Their goal was to "Establish a biodiversity monitoring and evaluation system at the protected area and regional levels."[91] There was clearly to be a link between the M&E component and management: "The M&E system is designed to give early warning to managers of protected areas to permit mitigating actions. The indicators fully reflect the project. The M&E program would assist and guide the development of activities to be permitted in the parks and

[88] There were high expectations for remote sensing feedback for ARPA including the ARPA, Manual de Operação 1 indicating that 26 UCs should have full remote sensing data by the end of Phase 1. ARPA, MOP 1 p 35.
[89] ICMBio, p 27.
[90] World Bank, PAD p. 23
[91] Ibid p 10.

reserves."[92]

IMPLEMENTATION OF COMPONENT 4 IN PHASE 1

Two key strategy decisions were made early in project design that in hindsight failed to respond to ARPA's needs:

1) To invest ARPA funds into building MMA capacity to create an M&E program that could work across the full SNUC system. Building on a program developed in the late 1990s called the Sistema de Monitoramento Ambiental Para Unidades De Conservação – SIMBIO, the idea was to develop clear protocols that allow for comparable data across the full spectrum of UCs rather than create separate protocols for different projects.

2) To invest across a wide range of different monitoring elements such as climate change, water resources, socio-environmental data, and species diversity. The team clearly reached high and wide in an effort to develop protocols and data across a number of important areas.

Originally pilot monitoring projects were put in place in 5 "strict protection" ARPA UCs. In 2005 a set of biodiversity indicators were selected for on-the-ground studies. From 2006 to 2008 a number of inventories, ecological studies and surveys were done. Many of the results reported are population census data of key species. Other research was done on water quality/turbidity/temperature etc, and automatic weather stations measuring precipitation, etc. were installed in two UCs.

With the increased number of "sustainable use" UCs in the project, a socio-economic research line was added and the Resex Lago Capanã Grande from Amazonas was included as a 6th pilot area. A similar methodology was developed for socio-environmental data. A large meeting of a diverse group of collaborators led to the establishment of socio-environmental indicators that were then discussed with a local community in the Resex. 5 sets of consultants/research groups then followed up and developed data sets in Resex Lago Capanã Grande.

To assemble the research teams and data, the M&E program has focused on partnerships. For example, a partnership with the Agência Nacional de Águas in ARPA pilot sites was used to monitor precipitation, water flow rates, and set standards for water quality monitoring. Protocols for data collection were established and training programs were managed to engage researchers, UC managers, and in some cases local populations in supporting the monitoring program. There was also a strong commitment to work with the Programa de Pesquisa em Biodiversidade – PPBio (Program for Biodiversity Research within the Ministry of Science and Technology). The team's effective use of partnerships and outside researchers is one of the highlights of this Component.

While ARPA's goals for Component 4 were not attained, three results can be attributed to GEF's investment:

1. Protocols for biodiversity monitoring were agreed to among a diverse group of researchers and will be released to the ARPA partnership in April 2009.
2. ARPA UCs are being actively used by a academic, nonprofit and government researchers;

[92] World Bank, PAD p. 36.

3. Projects managed by other institutions such as Agência Nacional das Águas on water quality or INPE on climate change[93] in ARPA sites were encouraged.

While there is no global unified measure of protected area effectiveness given the many different objectives for UCs, there are many best practices to build from. The team strived to do it all — attempting to develop indicators across many fields and with many partners. ***As a result, they have failed to have any one set of indicators be replicable across UCs in a timely and cost-efficient way that can answer strategic questions relevant to UC managers.***

Finally, one of the most promising M&E areas for ARPA is remote sensing to monitor UC borders, incursions, and deforestation trends. A critical indicator of the success of ARPA is the success of the UCs in diminishing forest conversion. This measure is also critical for future efforts of the Government of Brazil to live up to its new commitments to slow deforestation and of great interest to the international community on global warming indicators. As Naughton-Treves et al. put state the situation: "Avoiding deforestation is not the ultimate litmus test for parks; biodiversity can be significantly compromised by invisible threats, such as hunting. But intact forest is an important signal that protected areas are having substantive results on land-use changes."[94] A series of partnerships were launched in 2005-2006 from the Remote Sensing Center of IBAMA, but failed to produce the desired results. Another effort to link with a state system also failed to produce the desired results. In 2007 terms of reference were put together for contracting a private firm to build ICMBio's internal capacity in remote sensing, but given financial concerns this contract has not moved forward. ***Component 4 has failed to establish the partnerships needed for ARPA to have access to needed remote sensing data***.

While the monitoring and evaluation efforts of this Component have done little to advance ARPA at this point, there have been other efforts to provide monitoring and evaluation in the program – outside of the budget used Component 4. The annual evaluation missions conducted by the principal donor agencies were particularly relevant in helping to make course corrections and ensure ARPA stayed on track. SisARPA and the use of the Tracking Tools and FAUC – mentioned in Section D provide another means of assessing how the ARPA program is progressing towards its goals. The training program – Gestão por Resultados – supported by GTZ is actively helping participating UC teams to measure real conservation results. Finally, Amazonas has developed an M&E protocol including explicit indicators such as the ability to apprehend people committing environmental crimes.[95] Rondônia downloads hot spots from INPE on a regular basis to track and respond to fires. None of these systems were developed to meet the goals of this component but all show some promise in advancing this goal in the future.

[93] ICMBio, p 18.
[94] Naughton-Treves et. Al. p 232.
[95] Amazonas, "Indicadores de Efectividade.." p 20.

The present direction shows little promise for monitoring ARPA and funding for this component should be shifted to another partner institution with a much clearer M&E mandate. Immediate needs for Phase 2 include:

1) **Forge a partnership with a respected institution that has remote sensing capacity.**
   There is no need and a very long time delay in trying to replicate this capacity in ICMBio. Given the huge potential of environmental compensation, REDD, and other funding, there is also a big advantage in having data generated outside of ICMBio for the objectivity and neutrality that the original PAD design was striving for. Organizations such as IMAZON and/or INPE need to be assessed as potential additional partners in the ARPA network.

2) **Actively engage the Independent Scientific Panel to review the work of ARPA across components 1, 2, and 4.**
   The UCP needs to be staffed adequately to effectively manage these important advisory panels. This panel is desperately needed to make the strategic connections between what park managers need to assess their conservation and sustainable use strategies and how the M&E program evolves – a critical missing piece throughout Phase 1.

3) **Secure Phase 2 funding for M&E from a number of donors.**
   The strong engagement of the ARPA donors is one of the reasons for the overall project success. GTZ and WWF technical assistance and training efforts do an enormous amount of good in helping to build capacity for the implementation of ARPA components. However, given that this component was entirely funded by just one donor – GEF, there was no training, capacity building or other interventions – to the component's detriment.

Given that ARPA is an innovative project of global significance, **once a basic M&E program is functioning**, a long-term vision of how ARPA could contribute to the world scientific understanding can be envisioned. Two ideas that a project the size and scope of ARPA would be ideally suited for are indicated below. These should not be started however until serious progress is made in the recommendations above with regular M&E information being provided to UC managers.

- Remote sensing is the priority, but field work also needs to be done. An exciting reach for ARPA would be to have studies attempt to integrate quantitative satellite image analysis with field mapping of invisible threats to protected areas, such as hunting. The few studies that have done this tend to confirm that deforestation patterns offer a conservative view of the extent of human activities in protected areas[96] and no doubt would provide greater insights for effective protected area management.

- A global scientific concern is the lack of good data to show the tangible economic value of UCs. Given the importance of ARPA on a global scale a partnership with a group measuring natural capital and effectively identifying environmental compensation costs etc. would have real relevance for Brazil and for local populations.

[96] Naughton-Treves et al. p 238.

SECTION G

PROJECT COORDINATION AND MANAGEMENT

COMPONENT 5

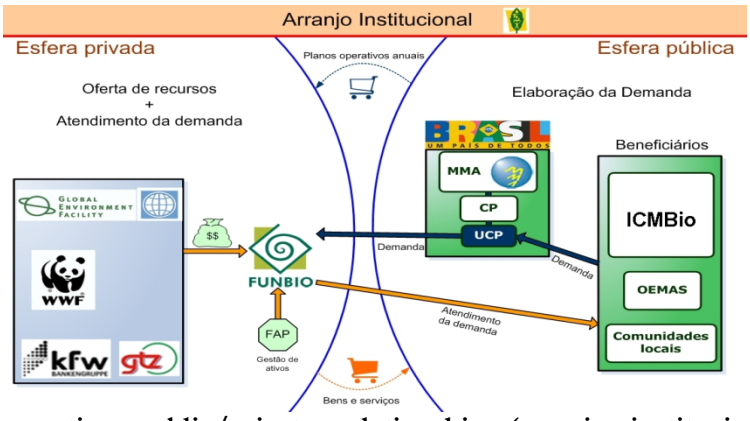
MAJOR FINDINGS

This section provides a more detailed assessment of the overall programmatic management ability of the managers of the ARPA program - the UCP, ICMBio, State Institutions (OEMAS) and FUNBIO.

TABLE G.1: KEY OUTPUTS FOR COMPONENT 5 IN ARPA PHASE 1[97]

OUTPUT	ASSESSMENT 12/08
A fully functional Project Coordination Unit (UCP) operating in accordance with the Project Operational Manual	■ The UCP has been operating within the MMA through Phase 1 using 4 detailed operational manuals. Staff strength has varied over time but currently has a Director, 5 professional staff and a contract relationship for secretarial and financial administration.

The ARPA institutional partnerships and project coordination far surpass simply the creation of the UCP. The complex relationship has best been depicted below: [98]



This innovative public/private relationship (arranjo institucional) has been the underlying driver of much of ARPA project success. While ARPA has certainly had its ups and downs in management and partner relationships, as a whole, it has had a very healthy start up. The lengthy and careful planning that went into the design of ARPA, clear principles that are

[97] Based on the outputs indicated in the Detailed Project Description of Annex 2. World Bank, PAD. p 65.
[98] FUNBIO, "Proposta para o ARPA ser parceiro do ICMBio na aplicação de recursos da Compensação Ambiental". p 4.

value-based to help steer the ship,[99] the elaboration of 4 operational manuals to help clarify implementation, and the obvious dedication of the staff from many different partner organizations have all played a role. Donors, government agencies (federal and state), technical assistance providers (GTZ and WWF-Brasil), and the nonprofits (FUNBIO as well as local groups such as SOS Amazônia), all have extremely dedicated staff who clearly not only go the extra mile, but are dedicated to helping ARPA be successful. They care deeply about the biodiversity and local communities affected by this project. Many of them describe their extra efforts and long hours as part of the privilege of getting to work on a project that is making a real difference on the ground. ARPA has also helped to build capacity in each of the leading institutions.

The apex of ARPA in Phase 1 was the 2005-2006 period when an enormous number of conservation goals were achieved. Activities in 2007 were severely affected by the restructuring of IBAMA to create ICMBio and subsequent staff strike. A re-energized team emerged in 2008, but with many new players getting up to speed. There was also a setback in partner relationships over financial projections as Phase 1 started coming to a close, funding restricted for the first time, and *CEREBRO* reporting was inadequate for enabling strong financial oversight. However, when reviewing the scope of the project over Phase 1 and the number of achievements attributable to synergies between the different partner organizations, the institutional partnerships have to be considered a major success.

Issues that have harmed partner relationships and are being addressed today and in negotiations for Phase 2 include:

1) Staff turnover – particularly in ICMBio and UCP positions;
2) Poor financial reports from FUNBIO in *CEREBRO 1*;
3) Inconsistent use of work groups and advisory committees.

Phase 2 is an opportunity to further build on the diverse competencies and skills of the different partner organizations creating the types of synergies that have enabled ARPA to advance conservation on the ground.

EFFICIENCY

A full R$22.8 million or 27% of ARPA funds were spent on this component.[100] Much of the administration was spent by the UCP and FUNBIO in training programs, software development, publications, ARPA promotional materials, and staffing to manage the administrative processes. FUNBIO's administration costs for managing the financial execution and procurement processes has been calculated for every POA (Operating Plans) year in Table G.2. The actual times that POA years functioned range from the 2 months so far in POA 2008 to 20 months for the POA of 2007. As a result, figures range widely. Nonetheless, a comparison with FUNBIO's administrative costs over the same periods, provide a general sense of efficiency.

[99] The "Principios" of ARPA – detailed in ARPA, MOP 1, pp 22-23 provide clear guidelines to staff on strategic direction.

[100] Calculations were based on "compon xdonor.xls" provided by FUNBIO. This reflects by POA year and the final books on Phase 1 will not be closed until April 2009 – so these are best estimates at the time of this report.

TABLE G.2: FUNBIO – ADMINISTRATIVE COSTS FOR EXECUTING ARPA[101]

POA Year	*FUNBIO Administrative Costs in $Reais*	*ARPA Expenses in $Reais per POA year*	*Administrative %*
2003	1,112,085	1,865,224	60%
2004	2,255,432	5,473,120	41%
2005	3,448,740	24,664,563	14%
2006	3,540,986	23,073,256	15%
2007	6,749,419	26,908,481	25%
2008	1,946,217	8,565,796	23%
Phase 1 Total	**19,052,879**	**90,550,440**	**21%**

The FUNBIO ARPA team was relatively small (less than 8 staff members) in 2003-2004 and most of the expenses shown for that period went into planning and meetings among the many partners to help launch ARPA. Given that there were few other expenses in the field, the "start up" costs fell inordinately on FUNBIO. As the program became truly operational in the field and started growing, FUNBIO grew its ARPA staff to approximately 20 staff members to manage the program expense disbursements. During the 2005 and 2006 POAs, FUNBIO achieved very acceptable administrative rates – well under 20% while expediting substantial funds to the field.

Since 2007, FUNBIO's administration has been higher than 20%, a rate usually considered at the upper end of acceptable, for nonprofits. During the 2007 POA year, FUNBIO made the decision to maintain its core staffing even when overall ARPA expenses were down due to a 4 month strike of ICMBio staff. They reasoned that these were factors beyond FUNBIO's control and laying off FUNBIO staff to only have to rehire and retrain made little sense and diminished overall ARPA capacity. Given that it was also unclear how quickly the strike would be resolved, this decision made strategic sense.

It is too early to draw any large conclusions about 2008 as the POA has been active for only a few months, but early projections indicate that FUNBIO needs to make adjustments. Overall program expenses are expected to be lower in this POA year as Phase 1 comes to a close. Unlike the ICMBio strike, this is a challenge that should be borne equally by all partners, so administrative expenses should be lowered during this period. FUNBIO's goal for the end of Phase 2 is to achieve 12% and the recommendations in this section should help them achieve that goal.

[101] Administrative costs organized by POA year by Daniela Leite of FUNBIO and compared to total expenses per POA year from "compon x donor.xls" from FUNBIO.

UCP - PROJECT COORDINATION AND MANAGEMENT

The UCP is the lead programmatic coordinator for the overall project. It has done an impressive job over the 6 years of ARPA implementation in a number of areas. Excellent project management work that deserves special mention includes:

- Managing the mapping process for Subcomponent 1.1
- Developing effective tools for UC management such as FAUC and SisARPA
- Maintaining close relationships with the field programs – field staff consistently indicate they respect the UCP staff and feel that staff tries to respond quickly to their needs;
- Working with field staff to improve the POA or yearly plans and advance the planning processes by actively analyzing and responding to submissions.
- Producing regular materials about ARPA to share learning from this program with the wider SNUC system and the world.

A small but important program management improvement over the course of ARPA was the physical relocation of UCP staff so that they share the same facility as the Secretariat for Biodiversity and Flora – its supervising department. This greatly increases communications between the UCP and the wider MMA structure. Staff describe ARPA as an innovative – leading edge program within the MMA and the UCP has attracted and kept competent dedicated employees through Phase 1.

RECOMMENDATIONS FOR THE UCP IN PHASE 2

Areas where the UCP needs to focus more in Phase 2 include:

1) Managing the Advisory Committees. A particularly strong recommendation is to convene the CP more regularly and request their advice in the resolution of ARPA bottlenecks and dilemmas as well as reviewing overall financial priorities and expenditures;
2) Supporting the Grupos de Trabalho with clear end dates so that solid products are produced to break up bottlenecks and improve efficiency in areas such as Management Plan templates and prototypes for infrastructure projects;
3) Providing financial oversight of the full project to weigh the priorities of different large scale spending objectives as part of its strategic overview responsibilities.[102] This responsibility will be made a lot easier with *CEREBRO 2* providing more reliable reports;
4) Continuing to raise the ARPA flag within the MMA – providing solid connections between partner staff and advancing the different components with political support within the MMA and the Government of Brazil. Senior political appointees appear to be very sensitive about partner/donor roles – albeit none can point to a more effective project for getting resources to the UCs. UCP staff can continue to help to build Government of Brazil recognition of ARPA as one of its most effective conservation programs, in part due to the innovative partnership relationships.

[102] According to the Manual de Operacao 1 the UCP is responsible for "Monitorar a execução do Projeto, segundo a matriz lógica do Projeto ARPA (Anexo 1-1)." It should be made clear that this means a financial overview as well. ARPA, MOP 1, p 36.

Additional support for the UCP will be needed in Phase 1 to continue to effectively lead this project as well as have more time to invest in the four areas above. Ideas for discussion in the Phase 2 negotiations include:

1) **More staff assigned to the UCP that are not "temporary"**
   The Government of Brazil has mainly filled central ARPA positions in the UCP and ICMBio with "temporary" employees who can work for a maximum of 4 years. The good news is that the staff hired through this process tend to be extremely well educated and dedicated. The bad news is that the majority of the UCP team and many experienced hands in central ICMBio functions will turn over in 2009 – creating a major brain drain and many timing set backs for launching Phase 2. Part of professionalizing the system is to provide longer-term personnel in central support functions such as the UCP.

2) **An additional staff assignment – with political skills – for convening and managing the advisory committees**
   The disengagement of the advisory committees, particularly the CP over the past 18 months is a major failure in the current ARPA management from the UCP, and is no doubt related to staff shortages and turnover in the Director position. Civil society members of this committee are appropriately advocating for a more effective role,[103] but it takes staff time and attention to host meetings, manage regular correspondence, and set appropriate agendas. Similarly the PAD proposed a **Conflict Mediation Committee** to manage inevitable land disputes around UC creation, a project element not implemented in Phase 1. A consultant paper (Pasca) lays out a framework for developing a Conflict Mediation Committee to deal with indigenous lands. Finally, this evaluation also urged the revitalization of the Advisory Science Panel in Components 1 and 4.

3) **Improve the POA Timing Approval process**
   The Annual Operational Plan (POA) process merits recognition as a great planning tool, however there is currently too long of a delay time in approving the POAs through the various partners and ultimately the CP. POAs for a given year often start up to 10 months late! This is an issue for all the partners – who all play a role in POA review and timing - but the UCP needs to lead this process and set deadlines. Delays have big implications in the field including:
   - Loss of credibility with local communities if activities have been promised;
   - Loss of windows for doing the activities (POA activities are programmed for set time periods. In much of the Amazon there are windows for accessing certain areas/communities by boat or by road that are closed off during parts of the year); and
   - Inability to quickly move forward with the local Conselhos that ensure participation from local communities in key decisions.

   A recommendation from the field for improving this process is to create a 2-tiered system. UC managers feel that over 70% of the field gets their POA requests in on time and with few controversial requests. They feel these 70% should be approved quickly so they can move forward at the appropriate timing. It is the UCs that are late submitting or have an extremely high budget item such as a high cost Rapid Ecological Assessment or infrastructure project that require greater review time and slow up the process for the whole system. Thus, a 2-tiered system is recommended to quickly move through the easier decisions and create an incentive for UC managers who are on time and within the budget parameters.

[103] Durigan.

ICMBio - PROJECT COORDINATION AND MANAGEMENT

The creation of ICMBio in 2007 was an important statement by the Government of Brazil of the importance of professionalizing the management of the SNUC system. As discussed in Section D, ICMBio staffs the federal protected area system. It has two different divisions that in turn support the "sustainable use" and "strict protection" UCs. ICMBio staff have been hired through a competitive "concurso" system attracting bright young college-educated professionals. As mentioned in Section D the building of this system has been a major success within ARPA as the UCs are getting staffed and many of the staff have been tremendously dedicated and effective. ICMBio has also done a great job of limiting non-professional appointments that are more politically motivated. They should be congratulated for their efforts to date and encouraged to continue their efforts to use transparent "concurso" or other selective processes to increase the likelihood of committed and qualified staff.

ICMBio is still a very young institution – only created in 2007. Thus, there are huge expectations that it can dramatically enhance its capacity and better support staff in the field. At this point ongoing restructuring, a high level of job turnover in senior Brasilia positions, and tensions in the field as ICMBio-IBAMA jobs/property/offices get divided, is constraining high levels of effectiveness. Additionally staff turnover – and the numerous responsibilities of central staff that have a percentage of their time assigned to ARPA - provides a sense of minimal staff truly engaged in centrally supporting the ARPA program. This limits the visibility of ARPA within Brasilia and may minimize the understanding of the program within the wider ICMBio community.

RECOMMENDATIONS FOR ICMBIO IN PHASE 2

The following recommendations are designed to better support ICMBio staff in the field and continue building the capacity of ICMBio over time. While this young institution has made some strong strides, greater attention to system-wide human resource issues would help to improve ARPA and the wider SNUC system.

1) **Create new Job Descriptions consistent with professionalizing ICMBio.**
   There is no "UC manager" job description within the Government of Brazil's personnel classification system. Everyone is an "environmental analyst" – a field that attracts young biologists / ecologists with a research background and little experience in management, budgeting, or community outreach. This exacerbates the high levels of turnover, as many don't adjust either to the site or their job functions.

   In addition there is no "park guard" job description that would allow the hiring of local people who know the area, can communicate with local communities, and can manage roles like posting signs, patrolling, boat piloting, and documenting threats etc. with lower costs, increased tenure, and stronger ties to the local communities. Staff recommend managing selection for these jobs in a similar way as firefighters are chosen – job descriptions and competitive selection processes that don't require high levels of academic preparation but strongly weigh local knowledge and motivation. On-site staff also suggest this job function would prove far more useful to effective management than additional "environmental analysts."

2) **Provide job incentives and salary differentials for difficult Amazonian postings.**
Jobs in the natural resource sector in the Amazon are notoriously difficult. Many staff want to rotate as soon as possible to easier physical and social environments. Some new hires take an Amazon posting to become part of the civil service only to transfer to other regions of the country within months. One recommendation is to provide a salary incentive for staying longer periods of time – e.g. a 1 time increase after 2 years and again after 4 years. To make this successful the job rotation service would have to be offered on a regular basis – so that people can choose to stay and still know they have a chance to transfer out after spending longer periods in the Amazon. The current rotation offered in late 2008 led to numerous ARPA applicants for transfers – some of whom were afraid that if they didn't apply now, they may not be able to move for many more years. The provision of other incentives, such as days off after lengthy field forays, to those who choose to work in more difficult conditions would also potentially help attract – and keep – more qualified candidates in the Amazon region.

3) **Provide support staff to UCs.**
When ICMBio was carved out of IBAMA in 2007, administrative support staff stayed with IBAMA. Thus administrative staff such as secretaries, financial administrators etc. are not currently available to most UC managers. This unforeseen repercussion of the institutional separation is causing a lot of stress in the field as qualified UC managers are spending a large amount of time on basic administrative forms. Lower level administrative positions are also jobs that can go to local people – improving relations on the ground. The ARPA program recognizes the importance of support staff positions and allows it within the 5 staff needed for consolidation. Administrative support was consistently requested by field staff above and beyond the importance of having another professional assigned to the UC.

4) **Set 2-3 concrete human resource data management goals to help ICMBio develop base capacity for knowledge sharing.**
ICMBio's data management services are weak and some core services need to be put in place to help this young institution get some traction. ICMBio lacks basic, and technologically simple, systems such as an accessible database on employee assignments and skill sets or a standard e-mail system for all employees that functions. These holes are indicative of bureaucratic inertias in the effort to more fully professionalize ICMBio at this time. Field staff are isolated and without these types of tools, cannot easily identify or create networks with people with similar interests and problems. Effectively sharing learning within the wider ARPA and other networks requires basic data management systems to be in place.

5) **Improve transparency with ARPA partners.**
The Brazilian government has failed to provide clear financial records of its contribution to the ARPA program. Most of the partners estimate that the government has contributed more than its share to the ARPA partnership, but the lack of disclosure of financial records harms the ability to cost out the true cost of effective UC management, credit the government appropriately, or clarify fundraising needs for additional ARPA investments with new donors.

6) **Work out with donors and FUNBIO guidelines for central staff use of the *conta vinculada***

The *conta vinculada* was created to support easy financial operating transactions for UC managers. As mentioned in Section F, this system has not been as easily accessed for ICMBio centrally located staff. Currently they must tie into a UC POA to travel – creating some constraints around core travel and expense needs of ICMBio staff located in Brasilia. Clarifying this situation would be helpful to these staff and may strengthen planning support services for the federal UCs.

7) **Think through security prior to major equipment/infrastructure investments**

This recommendation applies to State agencies as well. A number of discussions with UC managers led to comments about "vigilancia patrimonial" which refers to the security forces that guard buildings, club houses, or equipment. When facilities are not regularly staffed, many Brazilian agencies and companies hire "vigiliancia patrimonial." A few UC staff admitted to purchasing furniture and other "goods" through ARPA but they have yet to deliver it to the site as there is no security. In another situation, a good boat was purchased, but no one had thought of where it could be securely stored. Security tends to be very expensive and a number of UCs have given up the idea of contracting through standard security firms as the sites are too isolated to allow regular rotations at a reasonable rate. The recommendation is that prior to major equipment or facility investments, the UC managers (state and federal) need to think through security concerns and have a cost-appropriate solution.

STATES - PROJECT COORDINATION AND MANAGEMENT

Within the Brazilian political system, states have a lot of autonomy and strength. State UCs are managed by State Environmental Ministries who are equal partners in ARPA. As mentioned in Section D, a number of states are managing UCs within the ARPA system including Acre, Amazonas, Mato Grosso, Rondônia and Tocantins. ARPA is committed to helping to build the capacity of ICMBio and state agencies to effectively manage UCs. Part of this commitment is reflected in the formal agreements and support that enable the continued professionalization of these agencies. Technically ARPA is also able to support municipal UCs, but none have entered the system in Phase 1.

While a thorough look at state agencies was not included within this evaluation, a number of interviews were held. Many of the agencies reported higher levels of staffing in ARPA sites and strong political support for meeting ARPA obligations. In addition, it was clear that environmental ministries across different states are making very different levels of commitment to the scope and staffing of their UC activities. Amazonas has a "keep standing forests (floresta em pé)" policy that has led to a rapid increase in hectares conserved in state UCs (7 m hectares in 2002, 16.5 m in 2008 and an expectation of 20 m in 2010). They had a competitive process with over 600 applicants for 20 jobs. Seeing this type of professionalization and clear political commitment from an ARPA state partner is rewarding and a statement as to the importance of ARPA's support to state UCs.

RECOMMENDATIONS FOR STATE AGENCIES IN PHASE 2

1) ACCELERATE EFFORTS TO PROFESSIONALIZE GOVERNMENT STAFFING

Non-competitive job appointments. As in all countries, Brazil uses job provision as political payback to people who have helped the current ruling party or who are friends of a given political figure. While ICMBio has dramatically limited appointments of this kind that is not the case in all of the state ministries. While qualifications of state employees vary, the institutionalization of park management as a professional career in state institutions appears to be tenuous in many Amazonian states. Amazonas is developing a professional corps in their Centro Estadual de Unidades de Conservação and has begun competitive hiring processes. In Mato Grosso steps are being taken to staff the protected areas but jobs are filled by appointees with relatively unqualified people and high rates of turnover. There is a movement now to document the professional characteristics needed and have a decree from the governor that will allow for a competitive hiring process. ARPA needs to endorse and support these efforts in states such as Mato Grosso and Rondônia which have not yet developed professional standards.

2) **Increase the political commitments in states with ARPA UCs.**
To date ARPA UC selection has been based primarily on ecological factors discussed in subcomponent 1.1. However, political commitment to natural area protection is essential or the protected area will fail – especially in the early period upon creation and prior to effective management installation. It appears that some states are doing a much better job than others in respecting the borders of UCs and supporting their protection. States that are seriously addressing land titling, providing incentives for landowners who follow the Brazilian Forest Law and protect their "legal reserves" and "Areas of Permanent Protection"[104], and supporting law enforcement for "environmental crimes" are throwing a true lifeline to newly State UCs. These will be far less likely to be populated and deforested than in states that are not making this commitment. A minimal set of commitments to ensure states respect the land regularization process and will sanction the use of "vigilancia" or law enforcement in and around UC boundaries could be considered as a base entry requirement for new ARPA UCs.

[104] The 1965 ***Forest Code*** allows for agricultural expansion but obliges landowners to:

- Maintain an ***Area of Permanent Preservation*** of natural vegetation along waterways (e.g. riparian forests), flood plains, headwaters, and steep slopes to limit erosion and protect Brazil's freshwater resources; AND
- Create ***Legal Reserves*** by maintaining a set percentage of farmland in native vegetation to avoid clear cutting and ensure ongoing environmental services.

Some states are taking far more leadership than others in setting standards, allowing for compensation (including using legal reserve compensation to purchase private land within UCs), and requiring proof of compliance prior to additional agricultural loans etc.

FUNBIO - PROJECT COORDINATION AND MANAGEMENT

FUNBIO is the financial executor of the ARPA program as well as the lead coordinator of the ARPA Trust Fund in Component 3 and subcomponent 2.3. It has brought a level of innovation and financial transparency to the project that has allowed high levels of program expenditure – 92% in Phase 1[105] a huge improvement on other internationally sponsored programs managed with the MMA.

Excellent work in project management includes:

- Creation of the *conta vinculada;*
- Transparent ability to review status of procurement and other items in *CEREBRO;*
- Fast response time to field requests and demands – particularly with the *conta*;
- Ongoing training and outreach to ICMBio and other staff to train them in Brazilian law and donor financial management requirements for effective project administration.
- Maintaining close relationships with the field programs – field staff indicate they respect the FUNBIO staff and feel that staff tries to respond quickly to their needs and transparently posts process steps in *CEREBRO.*

RECOMMENDATIONS FOR FUNBIO IN PHASE 2

The following are recommendations to improve financial efficiency and transparency for Phase 2 that can be worked on during the negotiations process.

1) Dramatically improve *CEREBRO* Reporting

One of the biggest problems for FUNBIO, particularly noticeable as funding started to restrict in 2008, was getting good management reports from *CEREBRO*. This is needed for each UC to see actual expenses vs. budgeted expenses and is especially critical for the UCP to thoroughly assume the task of Financial Oversight of the project – essential for priority setting in Phase 2. The lack of standard easy reports is a known problem and the partners have collaborated on defining their needs. Their reporting requirements are being incorporated into a new version, *CEREBRO* 2, which should be released in June 09.

Effective reporting from *CEREBRO 2* is essential and early trials are needed to ensure that the UCP, the CP, donors and all ARPA partners can effectively understand the financial state of ARPA and the individual UCs. If the decision is made to set financial ceilings on each UC as part of ARPA practice, the need for successful tracking becomes even more paramount for UC managers.

2) Work with Donors on more flexible Procurement Rules

An area that FUNBIO is regularly criticized for, but for which it has generally done an impressive job, is procurement. The issue is more to do with donor regulations than FUNBIO capacity. Procurement has tended to take a long time as "goods" must be purchased in "lots" through a national bidding process. This tends to lead to bids only by large companies that have the administrative structure to manage the paperwork – regardless of their knowledge of Amazon conditions or the time and expense in transportation costs etc. The current process leads to cases such as:

[105] FUNBIO – private communication February 13, 2009. Final accounts are anticipated to be submitted in April 2009.

A "Successful" Case. A UC in Mato Grosso needed a 50 m tape reel for measuring boundaries. Following procedure they got local prices, determined it cost R$350, and requested the funding in the 2006 POA. FUNBIO, based on current donor/MOP procedures, then put together all the requests for "tape reels" and got national bids on who could provide the items in bulk cheapest. They succeeded and eventually were able to purchase tape reels for all requesting UCs for R$80 a unit, a substantial savings. However, the transaction took over 2 years – unreasonably delaying activities in the field. It also required a large amount of administrative staff time and a R$50 express mailing fee to Cuiaba. While in this case a cost savings was achieved – the 2-year delay, high administrative costs, and most importantly long delays in effective actions on site makes even this successful case questionable.

An "Unsuccessful" Case. A national bid for a major purchase on new boat motors was won by Mercure. These wonderful powerful state-of-the-art boat motors were sent to many UCs. Unfortunately, the UCs interviewed reported the motors have been nothing but a headache – breaking down quickly in the difficult river currents of the Amazon with no access to parts or local repair facilities. To make matters worse cheaper motors are available locally with no long delays or expensive delivery costs. They are not as powerful, but are far more reliable on local rivers. Additionally, warranties can be secured locally, they are far easier to maintain, local boatmen know how to handle them, and parts are available.

An additional concern is that Phase 1 had some procurement efficiencies but mainly thanks to the greater flexibility provided by one of the donors - WWF-Brasil - for specific requests and for goods under US$1000. If WWF-Brasil contributes a smaller percentage of the overall ARPA budget and no changes are made to donor procurement requirements – procurement lag times and purchases will no doubt be even harder in Phase 2. The current procurement processes lead to a time delay (usually 1-2 years), hurt ARPA's reputation in the field, increase FUNBIO's administrative costs, and do not necessarily provide better quality or overall cost savings to the project.

Many transparent options are available to donors to create more flexible rules while maintaining their desire for costs savings and transparency. Ideas such as allowing "internet" price quotes to replace the need to secure numerous formal bids would dramatically speed up the process. A bigger step would be to create a category of small-scale equipment purchases or "goods" that can be purchased with the *conta vinculada* once approved in the POA. Currently "goods" are considered equipment assets, so even small-scale purchases, such as camping knives, have to go through the onerous procurement process. A new MOP procedure could be put in place for purchases under a certain amount (recommended R$20,000). Advantages include:

- Avoiding long delays;
- Minimizing administrative costs;
- Spending money in local communities;
- Giving UC managers control over quality level of goods needed; and
- Maintaining transparency, receipts and proven effective administration for donors.

3) Work with Donors to relax Contracting Rules

Currently complex processes that require experienced consultants such as Rapid Ecological Assessments and Management Plans are best secured through contracting a business registered as a "pessoa juridica". While it is possible to contract individual consultants as

"pessoas fisicas" – with easier rules, it is hard to pull together a team of people in this manner as there is no clear coordinator, report writer, administrative support etc. Current requirements for contracting business groups are very high cost with national bidding processes. As stated by one state team, "We will do everything possible to avoid contracting through ARPA as it will only create delays and a horrendous amount of paperwork."

Small businesses – often with specialized biological expertise – cannot manage the complex and administratively difficult "pessoa juridical" bids and therefore do not respond. Therefore, FUNBIO often gets extremely expensive bids for projects that do not have the best staffing and are managed by firms more interested in securing high overhead costs than best conservation plans. A Mato Grosso team spent 18 months trying to hire a Rapid Ecological Assessment (REA) team, including flying to Rio to review final candidates once FUNBIO had gotten national bids. The resulting bids proved so high that the REA has not been approved and their efforts to get the data needed for new UC creation have ground to a halt. A more minor, but still important repercussion, is that firms develop a bad relationship with FUNBIO after they spend a lot of time responding to these bids – and then are not hired or the time frame keeps extending.

FUNBIO should make the case for transparent easier procurement rules to allow greater flexibility to contract conservation professionals in smaller firms. With regard to Management Plans, as mentioned in Section D – part of the problem is also the poor terms of reference template provided by ICMBio – which needs to be changed concurrently.

4) Do sporadic audits in the ARPA system

Recognizing that donors are being asked to be more flexible with procurement rules and the *conta*, greater efforts may be needed to ensure appropriate funding expenditures and minimize risk. Two potential ways of approaching this are:

- FUNBIO organizes ARPA team members to visit UCs and review financials. This could be a learning opportunity for ARPA staff and include a mix of FUNBIO, donor, UCP, and UC staff. One of the advantages of including other UC staff is that they learn more effectively appropriate and inappropriate administrative processes and can also share best practices as problems get worked through and resolved.
- Contract an independent firm to do occasional reviews following ARPA guidelines.

5) Set expectations on FUNBIO overhead

FUNBIO has proven it has the capacity to manage high levels of program expenditures at a reasonable administration rate (14-15% in 2005-2006). It loses efficiency when overall ARPA expenditures decline and its staffing structure remains constant. The end of GEF Phase 1 funding created some tension within the full ARPA program and led to cutbacks in the UC POAs. While FUNBIO intends to hit 12% in administrative costs prior to the end of Phase 2, it needs help in both projecting overall costs (the POA process can do this – but only if approved within the timeframe given), and in keeping administrative costs down (recommendations to ease procurement regulations would be a big help here). FUNBIO, like the other partners will need to find cuts during the 2009 transition year to keep its administrative costs in line with the wider projected decline in spending until Phase 2 is fully launched.

While ending this independent evaluation with some strong recommendations for the partners, overall the "Arranjo Institucional" has been extraordinarily successful. The public/private relationships have shown off both the strengths and weaknesses of various partners – but overall the strengths have dominated. The ability of the various partners to support UC activities in the field is unparalleled in the Amazon context and ARPA partners' needs to take great pride in their accomplishments. Furthermore, all of the partners have shown a capacity to surmount weaknesses – supporting each other and getting stronger through that process. That has been the secret success factor in Phase 1 – and must be carried into Phase 2.

ANNEX H.1

AGENDA FOR INDEPENDENT EVALUATION

DATE LOCATION	MEETING	
December 8-9, 2008	FUNBIO	Rio de Janeiro
December 10, 2008	Worldwide Fund For Nature – WWF-Brasil	Brasília
	World Bank	
	Agência De Cooperação Técnica Alemã – GTZ	
December 11, 2008	Banco Alemão de Desenvolvimento - KFW	
December 12, 2008	Ministério do Meio Ambiente – MMA ♦ Secretaria Executiva - Secex ♦ Unidade de Coordenação Do Programa - UCP ♦ Instituto Chico Mendes de Conservação da Biodiversidade - ICMBio: ♦ Diretoria de Unidades de Conservação de Proteção Integral –DIPI ♦ Diretoria de Unidades de Conservação de Uso Sustentavel- DIUSP	
December 15, 2008	Nave Terra Consultants	
December 16, 2008	Ministério do Meio Ambiente - MMA ♦ Departamento de Areas Protegidas – DAP ♦ Secretaria de Biodiversidade E Florestas – SBF ♦ Unidade de Coordenação Do Programa - UCP	
December 17, 2008	Ministério do Meio Ambiente - MMA : ♦ Dept de Gestão Estratégica - DGE ♦ Assessoria de Assuntos Internacionais ♦ Unidade de Coordenação do Programa – UCP	

DATE	MEETING	LOCATION
December 18-19, 2008	SEMA Mato Grosso ♦ Secretaria do Estado ♦ Superintendencia Biodiversidade ♦ Coordinação de Unidades de Conservação	Cuiabá

December 20 -21, 2008	FUNBIO	Rio de Janeiro
Dec - January 2009	Research and writing - Aligning Visions	California
February 2, 2009 Brasília	WWF-Brasil	
	COPAM/DIPI/ICMBio	
	Unidade de Coordenação Do Programa - UCP	
February 3, 2009	Seminario Tecnico Zoneamento e Planejamento	Rio Branco
February 4, 2009	SOS Amazônia	
February 5 - 6, 2009	RESEX Cazumbá Iracema	
February 9, 2009 Manaus	SDS/CEUC Amazonas	
February 10 - 12, 2009	REBIO Uatumã	Balbina
February 14 -18, 2009	SEDAM, Rondonia	Porto Velho
February 20, 2009	FUNBIO	Rio de Janeiro
Late February	Research and writing – Aligning Visions	California

ANNEX H.2

LIST OF PARTICIPANTS INTERVIEWED DURING THE INDEPENDENT EVALUATION

DONORS TO ARPA

NAME	INSTITUTION	TITLE
Adriana Moreira	World Bank Senior	Environmental Specialist
Jens Ochtrop	KfW	Diretor de Programas Manejo de Recursos Naturais
Fernando Vasconcelos de Araujo	WWF-Brasil	Program Manager, Protected Areas and support to ARPA
Matt Perl	WWF-USA	Managing Director
Guilherme Brandão	MMA	Director, Departamento de Gestão Estratégica
Fernando Lyrio Silva	MMA	Chefe da Assessoria de Assuntos Internacionais
Maria Cecília Wey de Brito	MMA/SBF	Diretora Secretaria de Biodiversidade e Florestas
Nazaré Soares	MMA/SECEX	Coordenadora do Programa Piloto para Proteção das Florestas Tropicais.
Maurício Mercadante	MMA/SBF	Assesor
Luis Henrique Daldegam	SEMA, Mato Grosso	Secretaria do Estado, SEMA
Domingos Macedo	CEUC	Centro Estadual de Unidades de Conservação, Amazonas
Cletho Muniz de Brito	SEDAM, Rondônia	Secretário de Estado do Desenvolvimento Ambiental

FEDERAL GOVERNMENT EXECUTORS OF ARPA

NAME		INSTITUTION	TITLE
Anael Aymorê Jacob		UCP	Coordenador, UCP
Rejane Freitas de Andrade		UCP	Apoio administrativo
Ana Paula Magalhães		UCP	Apoio administrativo
Daniela de Oliveira		UCP	Técnico Especializada
Tatiany Pereira		UCP	Técnico Especializado
Katia Adriana Souza		UCP	Analista Ambiental
Eduardo Trazzi		UCP	Analista Ambiental
Patricia Vingnolli		UCP	Apoio administrativo
Zita Muller		Ex ARPA	Worked in UCP til 2006
Maria Iolita Bampi	I	ICMBio/DIPI	Coordenação Geral
Katia Cury		ICMBio/COBAM	Tecnica
Arlindo Gomes		ICMBio	Gerente UC RESEX Cazumba Iracema
Lilian Hangue		ICMBio/ DIPI	Ponto Focal ARPA
Andre Martis		ICMBio/DIUSP	Ponto Focal ARPA
Allan Razera		ICMBio/COBAM	Analista Ambiental
Luciana Ribas		ICMBio/DIUSP	Ponto Focal ARPA
Iran Sotero		ICMBio/DIPI	Ponto Focal ARPA

STATE GOVERNMENT EXECUTORS OF ARPA

NAME	INSTITUTION	TITLE
Eliani Fachim	SEMA Mato Grosso	Superintende Biodiversidade
Margarida Coelho	SEMA Mato Grosso	Ponto Focal ARPA
Elder Monteiro Antunes	SEMA Mato Grosso	Analista Ambiental
Katia Moser Borges de Oliveira	SEMA Mato Grosso	Analista Ambiental
Vera Noriko Kuroyanagi	SEMA Mato Grosso	Analista Ambiental
Eliani Mezzalira Pena	SEMA Mato Grosso	Analista Ambiental
Henrique Santiago Alberto	CEUC, Amazonas	Chefe Dept Pesquisas
Francisco Aldemar da Silva Cruz	CEUC, Amazonas	Chefe Dep População Trad.
Rosa Maria Conceicão Ribeiro	CEUC, Amazonas	Chefe Admin Financeira
Regina Pinheiro Cerdeira	CEUC, Amazonas	Coordenadora Voluntarios
Gino Machado de Oliveira	NATURATINS	Ponto Focal, ARPA
Marcus Lemgruber Porto	SEDAM, Rondônia	Ponto Focal, ARPA
Raimundo Dimas Lima	SEDAM, Rondônia	Chefe, PE Corumbiara
Austino Malaquires de Silva Mirim	SEDAM, Rondônia	Chefe, PE Guajara
Juciley Gomes	SEDAM, Rondônia	Tecnica
Rosário Almeida	SEDAM, Rondônia	Analista Ambiental
Jose Moreira Zecao	SEDAM, Rondônia	Tecnico, Corumbiara
Renato Berwenger da Silva	SEDAM, Rondônia	Eng Florestal
Eleiney de Brito Silva	SEDAM, Rondônia	Tecnico

PRIVATE PARTNER ADMINISTRATORS OF ARPA

NAME	INSTITUTION	TITLE
Pedro Leitão	FUNBIO	Executive Director
Daniela Leite	FUNBIO	Gerente do Programa ARPA
Fabio Leite	FUNBIO	Program Management Unit
Marina Kahn	FUNBIO	Component 2.3
Marina Machado	FUNBIO	Coordenadora Financeira
Bernadette Lameira	FUNBIO	Gestão de Programas
Natalia Prado Lopes Paz	FUNBIO	Gerencia de ARPA
Mary Teixeira	FUNBIO	Gerencia de ARPA

TECHNICAL ASSISTANCE PROVIDERS TO ARPA

NAME	INSTITUTION	TITLE
Mary Allegretti	Consultorias Socioambientais	Antropóloga
Roberto Antonelli Filho	Consultor	Consultor
Rogério Bittencourt Cabral	Nexucs	Consultor
Silvia Brilhante	SOS Amazônia	Diretora
Aldeci Cerqueira Maia	Conselho Directivo RESEX	Ex-Presidente RESEX Cazumba Iracema
Andreas Gettkant	GTZ	Coordinator Nature Reserves and Sustainable Resource Use
Greg Love	WWF-USA	Sr. Program Officer for ARPA
Lêda Luz Tropicais	GTZ	Programa Florestas
Francisco de Oliveira Filho	WWF-Brasil	Coordinador do Programa Areas Protegidas e Apoio ao ARPA
Cleani Paraíso Marques	Nexucs	Consultora
Marcos Reis Araújo	Nexucs	Consultor
Johannes Scholl Tropicais	GTZ	Programa Florestas
Ronaldo Weigand, Jr	Nave Terra	Director and ex UCP Director

PARTICIPANTS IN GESTAO POR RESULTADOS

NAME	PROTECTED AREA	INSTITUTION
Alessandro Marcuzzi Mariana Macedo Leitão	Parque Nacional do Jaú	ICMBio
Giovanna Palazzi Igor Matos Soares Tatiana Alves	Parque Nacional de Anavilhanas	ICMBio
Christoph Bernhard Jaster Marcela de Marins Cassandra Pereira de Oliveira	PN Montanhas do Tumucumaque	ICMBio
Mirian Magalhães Lucatelli Patricia Ribeiro Salgado Pina	Reserva Biológica Lago Piratuba	ICMBio
Ricardo Motta Pires Kelly Bonach	Parque Nacional Cabo Orange	ICMBio
Gino Machado de Oliveira Warley Carlos Rodrigues Lindomar José Wilke	Parque Estadual do Cantão	NATURATINS
Carlos Augusto de Alencar José Risonei Assis da Silva Antônio de Almeida Correia Jr	Reserva Biológica Rio Trombet	ICMBio

ANNEX H.3

ACRONYMS AND TERMS

ARPA	Áreas Protegidas da Amazônia - Program for Protected Areas in the Amazon. A multi-donor, multi-partner program designed to expand and consolidate the protected area system in Brazil to sustain Amazonian biodiversity in a significant and representative manner. Phase 1 ran from 2002-2008.
CAP	Conservation Action Planning - Methodology developed by The Nature Conservancy and adapted also by use for over 11 major environmental organizations as the Open Standards for the Practice of Conservation (Conservationmeasures.org).
CBD	Convention on Biological Diversity
CER	Certified Emission Reductions - used in UNFCCC negotiations and most commonly known as "carbon credits" wherein each unit is equivalent to one metric ton of Carbon Dioxide or an equivalent greenhouse gas.
CEREBRO	An internet-based financial tracking system set up by FUNBIO that allows all ARPA partners to see what expenses are planned or have occurred and where items are in the process.
Conta Vinculada	The 'conjoined account' set up by FUNBIO that has enabled funding to get directly to the Protected Areas in ARPA. The transparent process has a bank account near each UC which allows up to R$10,000 to be available for ongoing activities approved in the yearly plan. The rotating fund is refunded once receipts are provided.
COP	Conference of the Parties – The highest decision making body of the parties to the Convention of the UNFCCC. Meet yearly to negotiate next steps in the international agreements.
CP	Comitê de Programa - The oversight committee that reviews ARPA yearly plans and goals. It is made up of members of all implementing partners and WWF-Brasil representing private donors.
DIPI	Diretoria de Unidades de Conservação de Proteção Integral - Directorate for Protected Areas for Strict Protection (designed for biodiversity conservation). This department is part of ICMBio, which in turn is part of the Environmental Ministry of Brazil and an implementing partner in ARPA.

- DIUSP — Diretoria de Unidades de Conservação de Uso Sustentável - Directorate for Protected Areas for Sustainable Use. This department is part of ICMBio of the Environmental Ministry of Brazil (MMA) and an implementing partner in ARPA.
- FAP — Fundo Áreas Protegidas or ARPA Trust Fund. An endowed fund established in FUNBIO to cover ongoing recurrent costs of "consolidated" Protected Areas (UCs) in the ARPA program.
- FUNBIO — Fondo Brasileiro para a Biodiversidade – A private nonprofit entity responsible for managing the funding for the ARPA project, building the FAP, and handling execution of Components 2.3 and 3.
- GEF — Global Environmental Facility - A global partnership among 178 countries, international institutions, non-governmental organizations (NGOs), and the private sector to address global environmental issues while supporting national sustainable development initiatives. It is a major funding supporter for the ARPA project managed through the World Bank for this project.
- GTZ — Deutsche Gesellschaftfur Technische Zusammenarbeit ─ The German Agency for Technical Cooperation. It provides technical support to the ARPA project.
- IBAMA — Instituto do Meio Ambiente e dos Recursos Naturais Renováveis - A large executing agency within the Brazilian MMA/Environmental Ministry to focus more exclusively on environmental law management and enforcement.
- ICMBio — Instituto Chico Mendes de Conservação da Biodiversidade - A large managing federal agency within the MMA created in 2007 to be responsible for federal conservation areas throughout Brazil, including those within the ARPA program.
- IIRSA — Iniciativa para a Integração da Infraestrutura Regional Sudamericana – Established in 2000 by 12 South American countries, it has over 335 infrastructure projects, many in the Amazon.
- INCRA — Instituto Nacional de Colonização e Reforma Agraria – The government agency responsible for relocating landless people into sections of the Amazon to give them land and an opportunity for income generation. This agency uses "unclaimed government lands" as part of a Brazilian policy of populating the Amazon while raising the quality of life for its people.
- IPCC — Intergovernmental Panel on Climate Change - A UN sponsored scientific body that assesses the risk of climate change caused by human activity.
- KfW — Kreditanstalt fur Wiederaujbau - The German Bank for Development is a major financial contributor to the ARPA project.
- M&E — Monitoring and Evaluation - In the ARPA project it is part of Component 4.
- MMA — Ministério do Meio Ambiente - Environmental Ministry of Brazil.
- NGO — Non-governmental organization - Also called non-profits or social

	entrepreneurs are private organizations designed to meet specific societal needs. Often called the "third sector" in Brazil they are an important critic and implementation partner for government programs.
■ OEMAS	State Ministries for the Environment. While each State has a different title for its Ministry – as a whole these groups are called OEMAS.
■ PAD	Project Appraisal Document - Written by the World Bank to clarify grants and loans, the ARPA PAD was written in July 2002.
■ REDD	Reduced Emissions from Deforestation and Degradation. See UN-REDD.
■ SBF	Secretaria de Biodiversidade e Florestas – Secretariat for Biodiversity and Flora. It develops the national policy for protected areas within the MMA of Brazil. It supervises the UCP which is the coordinating body for implementing ARPA within the federal government.
■ SECEX	Secretaria Executiva of the Ministério do Meio Ambiente - Executive Secretariat of the Environmental Ministry of Brazil. It represents the most senior management level of the MMA.
■ SIMBIO	Sistema de Monitoramento Ambiental Para Unidades De Conservação - Environmental Monitoring System for Conservation Units. A monitoring and evaluation system that was used as a foundation for Component 4 of ARPA.
■ SisARPA	An internet-based system managed by the UCP/MMA to track the efficiency of UC management against benchmarks in the creation – implementation – consolidation cycle. It is available to all ARPA partners and park managers.
■ SNUC	Sistema Nacional de Unidades de Conservação - National System of Conservation Areas was decreed in 2002 (Lei n° 9.985) to provide clear legal guidance on the legal standing of conservation areas throughout Brazil.
■ UC	Unidade de Conservação - Protected Area. It refers to all types of protected areas including both "strict protection" and "sustainable use".
■ UCP	Unidade de Coordenação do Programa - the major execution body of ARPA located within the MMA. This group houses the staff that coordinates the implementation by the federal government for the program.
■ WWF	Worldwide Fund for Nature is a global network of conservation nonprofits. WWF is a major financial donor to the ARPA program and WWF-Brazil also has a large staff dedicated to technically supporting the ARPA program. Reference to network members will refer to them as such – e.g. WWF-Brazil, WWF-US etc.

ANNEX H.4

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