



**Assessment of the design elements of a sharing mechanism
of benefits from carbon revenues**

“Madagascar CAZ” REDD Project

FINAL REPORT

November 17, 2013

Executive Summary

1. The terms of reference of the assessment can be summarized as follows:
 - Identify an optimal approach for benefit-sharing, in particular to ensure that the operating costs required for the continuation of the project are covered, focusing on management and transfer options of funds allocated to local communities;
 - Assess the impacts on deforestation of the results of the NODE Programs and Conservation Agreements implemented over the past years;
 - Prepare the legal documents to formalize the identified and selected benefit-sharing mechanisms.
2. The BioCarbon Fund at the World Bank made a commitment to purchase 1.5 million dollars of carbon credits (from avoided deforestation activities) for 2009-2012. This transaction of 430,000 tCO₂ covers an area of 80,000 ha (non-spatially explicit). VCS, a private certification entity for voluntary carbon offset projects, will disburse the amount only after validating the Project Design Document (PDD).
3. A governmental decision on the distribution and management of carbon revenues will also be required for disbursement by the World Bank. This decision could become a reference for other REDD+ projects in Madagascar.
4. The study team examined the issue of carbon credits property rights. It was determined that unlike carbon (a natural element), a carbon credit is an intangible asset that does not exist prior to the project. Carbon credits are created through the range of trading procedures and standards as required by carbon market players. In other words, the process (i.e. the project) is what creates carbon credits. While the project developer (or co-developers) would logically be the holder of carbon credits rights, it may well be justified that the State, as potential owner of the CAZ forests, would claim part of the benefits.
5. The study team conducted several consultations with the stakeholders with repeated visits in the CAZ. The distribution formula suggested by the team is very similar to the one discussed between the DGF and the delegate manager before the mission:
 - 20% for the PA and REDD+ Project manager to cover management and operating costs;
 - 20% for the State, through the DGF and the DREFs, for supervision and control;
 - 3% for the trust agency responsible for managing and disbursing carbon funding;
 - 3% to cover specific technical fees for the carbon project (MRV, reference scenario updates);
 - 4% for marketing/trading fees. This would only apply to future revenues. Under the ERPA, the BioCarbon Fund will cover the trading fees.
 - A block of 50% allocated to local populations, to be divided in two parts:
 - 10% to the CAZ communes for **collective social investments** (schools, clinics, water system, etc.) to benefit the entire population. Such investments

could be considered as co-benefits of the sustainable management of the CAZ.

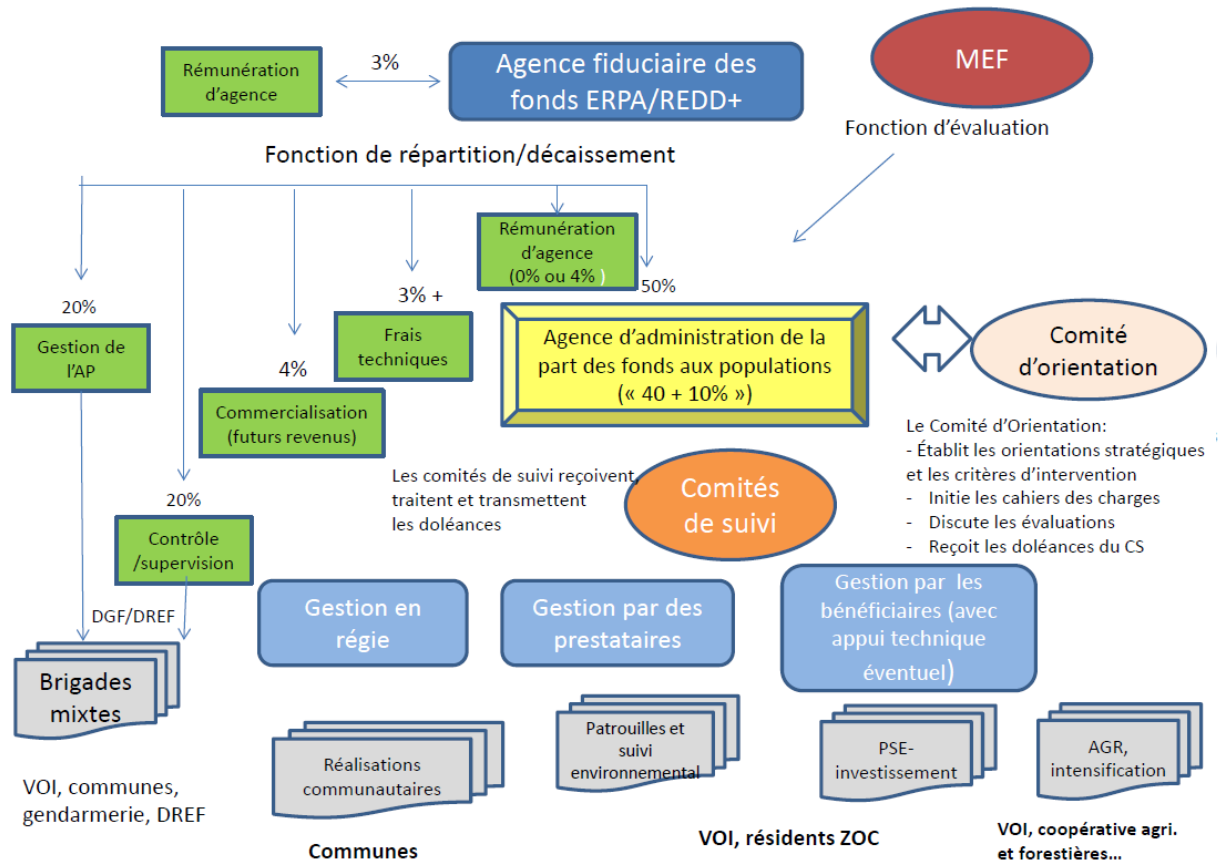
- 40% to communities (including management fees of the potential service providers), focusing on (i) individual or collective **productive investments** in income-generating activities and improvements of the agro-sylvo-pastoral system, and (ii) **direct incentives** for conservation.

Coverage rate of future needs:

6. The study team assessed the coverage rate of financial needs based on several assumptions on future annual REDD+ revenues. Financial needs were estimated for 3 functions: (i) The REDD+ Project management with the annual costs of the delegate manager, (ii) costs related to the carbon project (registration and verification, trading) using the figures indicated in the PDD, (iii) supervision and control costs assumed by the forest administration through the DGF (supervision) and the DREFs (control).
7. The financial needs of VOIs, local communities, and communes (for collective investments) could not be estimated. Such process would require thorough field surveys to estimate the aggregate opportunity cost for households that lost their access rights due to the creation of the NPA. To this opportunity cost, we would add the estimated value of investments aiming at sustainable economic alternatives (agricultural intensification, livestock, agroforestry, IGA) and poverty reduction.
8. The team used the PDD to estimate the coverage rate of financial needs under different options, assuming that carbon revenues would be the only source of revenues for the management of the CAZ. The reference scenario (the projected deforestation rate in the absence of the project) was set at 1.26% per year. This rate is much higher than the current observed annual rate of about 0.5-0.6 % in the CAZ. The project performance index is expected to reach 84% in 2017 (100%= zero deforestation).
9. Four simulations were performed. Optimistic assumptions, including the one selected in the PDD (price per ton of CO₂ of US\$7, sales of 70% of all certified credits, achievement of the expected performance) produce a “profit” (revenues exceed financial needs). The distribution of the profit would require collective discussions. Under pessimistic assumptions (low price, low level of trading), the funding needs for the three posts (management, control administration, carbon project costs) are not covered, in particular the specific costs for the carbon project such as registration with VCS, which requires more than the 4% planned in the distribution scheme. In such cases, the adjustment variable would be the portion allocated to the communes and communities, posing a risk to the effectiveness of the project (funding transfer would not be sufficient to ensure the acceptance of conservation).
10. The average annual income required to cover all costs (after an internal distribution to cover the carbon project costs) is estimated at 2.3 million dollars. The PDD anticipated an average income of 10.5 million dollars between 2013 and 2020.

Propositions for the administration of the percentage of funding allocated to local populations:

11. The following model was proposed for the administration of the percentage of funding allocated to local populations:



12. **Trust Agency** for the ERPA/REDD+ funds: the UCPE currently fulfills this role. Another entity, such as a foundation, could take over in the future.

- An “administration agency” will be in charge of managing the percentage of funding allocated to local populations. This agency would not necessarily be the delegate manager but could be a third party.
- There are three possible implementing options for the portion of funds allocated to local populations: (i) “in-house”, by the agency itself (project selection, supervision, etc.), (ii) through specialized consultants (this option could be combined with the in-house option), (iii) by the recipients themselves: an association of VOI federations, or VOIs and communes would be formed and would decide on the use of the funds (based on predefined specifications). This type of association could form cooperatives or rely on external consultants.
- These three options are not mutually exclusive. Management could be implemented in-house and/or using external consultants in some parts of the CAZ while the recipients themselves could be in charge in other areas. In the Didy area, VOI federations and the communes have expressed an interest to manage the funds themselves. The team recommends testing this option and leaving the choice to the relevant VOI federations and communes.

13. The third option (direct management by recipients) reflects the interest of some local players (VOI federations/communes).

- We recommend that a portion of the 40% allocated to the local communities be applied to support activities directly managed by the beneficiaries. However, it should be a competitive fund, based on merit, reversible, and not a vested right. The Administration Agency could set eligibility criteria for a prior evaluation of the maturity of beneficiary VOIs, VOI federations, and communes (past history, governance mode, appreciation by partners etc.).
 - The Administration Agency and potential supporting entities will restrict their interventions to technical assistance and monitoring and control procedures. This will enable the VOIs to engage in the management of the assistance, enhancing transparency and reducing the level of discontent/misunderstanding in the interaction between the VOIs and supporting entities.
 - The principle of management autonomy could be reversed after an annual evaluation process pertaining to:
 - i. Compliance with internal fund management procedures,
 - ii. Consistency between the use of funds and the objectives stated in the request for funding,
 - iii. And analysis of the actual allocation of funds between operational costs (VOI federations - specifically the leaders -, communes) and funding of activities.
 - Strict procedures must be established for money withdrawal from banking and microfinance institutions by the recipients, for disbursement programs (by installment based on planned activities), and for purchases and payments of services as validated by the Administration Agency: prior approval by the board, double signature procedure, procurement standards, record-keeping, etc.
 - Recipients must comply with the objectives stated in the request for funding by taking the appropriate actions. Compliance should be also ensured if the planned actions have already been stated in the request for funding to the Administration Agency.
 - The evaluation will focus on the **actual allocation** of funding. It is crucial that funding does not cover operational costs unrelated to activity implementation.
14. The CAZ communes would receive a share on the 10% to be allocated to all communes. To be eligible, communes must have over 50% of their territory located in the CAZ. The amount received will be allocated to collective investments aiming at improving local livelihoods in the CAZ (“recipients’ contribution” usually required by donors, direct funding by the commune).
15. Activities to be implemented by the VOIS with the funds (40%) would include:
- Income-generating activities (IGA) and agricultural intensification efforts, particularly in non-forest areas.
 - Surveillance and environmental monitoring patrols in the CAZ.
16. If the VOIs associated to the communes manage the funds, specific terms of reference will be established to define the obligations towards the populations in the ZOC, by setting incentives and conditions (such as “payments for ecosystem services”) to comply with legal obligations as well as recommendations and support efforts for the modification of agro-sylvo-pastoral practices, in partnership with a consultant.
17. **Pending a national legal and regulatory framework, contractual instruments based on existing arrangements will be recommended to define the framework for incentives.**
18. The government will be responsible for identifying management entities. If the UCPE keeps its role as trust agency, funds disbursed by the BioCarbon Fund will be redistributed after

validation of the agreed distribution model. The UCPE would also be in charge of controlling and verifying the use of allocated funds. The Madagascar Foundation for Protected Areas and Biodiversity (FAPBM) could eventually play this role, relying on one hand on the Forest Fund for the 20% allocated to the MEF and the DREFs, and on the other hand on an Administration Agency which would provide support to and build the capacity of local structures managing renewable natural resources, such as the Tany Meva Foundation, if CI ceases to play this role.

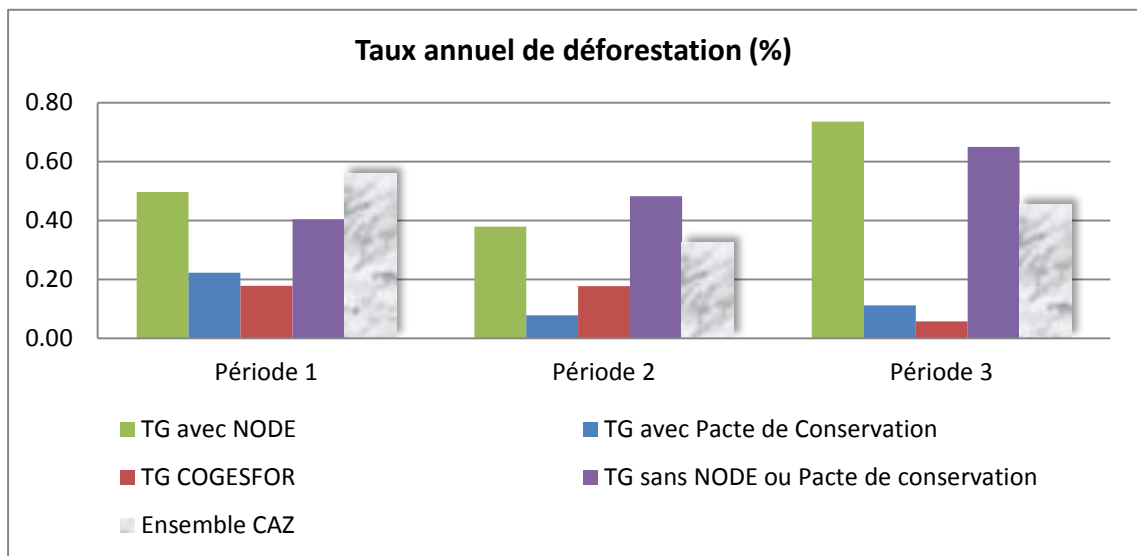
19. The “steering committee” of the Administration Agency should be the Interregional Evaluation and Steering Committee of the CAZ NPA (CIROE). Per Order 52005/2010, the steering and evaluation committee of protected areas is in charge of monitoring the implementation of activities within the PA. This committee, which has not yet been established, would (i) define the strategic directions for the use of carbon revenues based on the distribution formula adopted for the CAZ, (ii) initiate the specifications applied by developers, (iii) examine the grievances received by the Monitoring Committee/CCS (see below), and (iv) examine the evaluations by the Administration Agency (of the management of funds by local organizations) and by the MEF (of the management of the Administration Agency). The composition of the Committee shall be specified, adding two representatives of local communities to the two representatives of federations to take into account all organizational layers.
20. The “Monitoring Committee” could be a Sector-wide Coordination Committee (CCS). Both the REDD+ Project Design Document developed by CI and the Development and Management Plan (DMP) of the CAZ NPA, to be finalized, indicate that sector-wide coordination offices, led by coordinators employed by the delegate manager of the future PA, will be established. As the Federations do not include all legal entities with interest in the management of the 6 CAZ sectors, we recommend the establishment of a Sector-wide Coordination Committee (CCS), to include the communes, the local communities, the farmers’ organizations, and the agricultural and forest cooperatives participating in the management of the renewable natural resources of the relevant sector. As representatives of the local communities, these legal entities are potentially entitled to receive grants.
21. Two possibilities exist for fund release procedures:
 - The first and simplest option would be to consider that CI, as delegate manager of the CAZ NPA is qualified to develop specifications, based on the negotiated distribution model, to be appended to the carbon credits purchase agreement, in the name of all entities entitled to receive grants.
 - However, if the donor and the Government of Madagascar wish to establish a sustainable management structure for carbon revenues at the level of the REDD+ pilot project in the CAZ NPA, another procedure is feasible. Implementation might be slower due to the current political uncertainties.

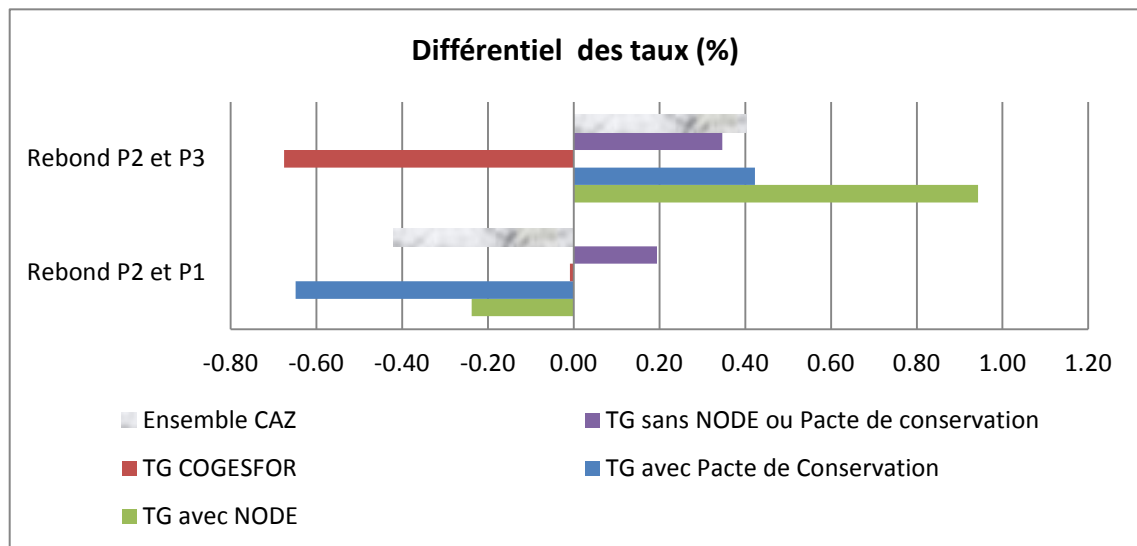
Project effectiveness:

22. The deforestation “rebound” observed between 2005 and 2011 (based on the latest available data) shows that a steady increase of the project effectiveness index is not a strong assumption as it depends on the largely unpredictable political and institutional context in Madagascar.
23. The project effectiveness assessment with the local populations was carried out using (i) remote-sensing data on deforestation trends, (ii) survey summaries in the CAZ done by

CIRAD and partners over several years, and (iii) interviews of resource people including CI consultants.

24. Generally, **the project was unable to prevent an upsurge of deforestation in the CAZ after 2005**. It can be assumed that the political crisis and its negative impacts on operations of institutions and administrations are largely responsible for the deforestation rebound. **Areas where management transfers were finalized (after 2005) have shown an increase of deforestation level, but significantly less than in areas without management transfers**. The specific management transfers managed by the COGESFOR Project should be highlighted, as they were the only cases with an absolute decrease of deforestation levels. **Areas with established conservation agreements (along with management transfers) do not generally show better results (rather worse but not significantly) than areas where management transfers were finalized**. **Areas where NODE Programs were implemented have recorded a significant deforestation upsurge**. This could be explained by the fact that the strongest human pressure originally affected these areas, which are on the front line when the level of threats increases. However, **CI should examine the lack of effectiveness of these direct conservation incentives** (based on the ICDP model - Integrated Conservation and Development Programs. The two figures below summarize the absolute and relative trends in the different categories, before their establishment, and after Period 3 (2005-2011) when management transfers and other initiatives were implemented:





These spreads were calculated by comparing the increase or decrease of deforestation level (relatively to the previous period) for each group. Areas were aggregated (one group = one plot). The last figure indicates relative trends between both periods.

25. NODE Programs are implemented by intermediate partners, which are consultants for CI. Conservation Agreements are **directly implemented at the VOI level without an intermediary**. While a NODE Program has a larger spatial scope, in terms of impacts on VOIs, grant amounts are lower than in the case of Conservation Agreements. For instance, the average grant awarded by the ANAE to a VOI is US\$1,150/year, while Conservation Agreements grants range between US\$4,000 and US\$5,000/year, and slightly more for the COGESFOR management transfers (between US\$5,500 and US\$6,000). According to several experts involved in the NODE Programs, they have not significantly improved local livelihoods. Activities implemented by consultants were judged inadequate to address local constraints and the needs of local farmers.
26. The main criticism expressed by the consultants relates to CI's requirement of having at least 75% of the NODE grants directly benefiting local communities, which limits the level of support. This situation actually reflects a lack of financial resources, leading to **the spreading of activities among the various VOIs, which have limited means and very little supervision**. The main complaint against CI is the **lack of time investment in the field, particularly for monitoring consultants**. This claim is locally confirmed by several VOIs reproaching CI's lack of visits in the field. On the other hand, CI criticizes their intermediate partners for their **lack of capacities in monitoring activities**. The partners have had difficulties providing impacts monitoring reports. **Technical capacities in environmental protection and rural development** are also lacking.
27. Direct field surveys on conservation agreements carried out by team members in 2009 indicate that several villages are in a situation of agrarian crisis due to the gradual depletion of production capacities under a slash-and-burn system without the possibility of extending to new forest areas. This agrarian crisis is compounded by strong demographic growth, leading to the fragmentation of plots upon land inheritance. Reduced areas must be cultivated more frequently to feed households, shortening fallow periods and decreasing land fertility and *tanety* rice yields. **The agrarian crisis facing the village communities in the area must be addressed to ensure the sustainability of conservation actions**. The main issue is the

diminishing productivity of cultivated lands, particularly on *tanety*, due to the reduced fallow periods (increasing number of households using the land).

28. Finally, **the capacity of the VOIs, as recipients, to manage grants with integrity and transparency, should be addressed.** There have been numerous occurrences of fraud and abuse and the range of conservation players in Madagascar has raised the question of the representativeness of the VOIs. To address this issue, the “Administration Agency of funds allocated to the populations” (see figure below) will be responsible for verifying the strict use of grants, in collaboration with the “Monitoring Committee”. The “Steering Committee” will be informed of any issues.
-
-

A. INTRODUCTION

The terms of reference of this study include:

- Identifying an optimal approach for benefit-sharing, in particular to ensure that the operating costs required for the continuation of the project are covered, focusing on management and transfer options for funds allocated to local communities;
- Assessing the impacts on deforestation of the results of the NODE Programs and Conservation Agreements implemented over the past years;
- Preparing the legal documents to formalize the identified and selected benefit-sharing mechanisms.

Background

The implementation of REDD+ in Madagascar is currently provided under pilot projects executed by delegate managers of New Protected Areas (NPA), based on carbon credit sales attempts on voluntary markets¹. Carbon credits projects are viewed as a direct contribution to the funding of protected areas. REDD+ projects developers specifically focus on protection of biodiversity and natural resources and the sustainability of underlying processes, in compliance with the recommendations of the CBD Secretariat to the Secretariat of the United Nations Framework Convention on Climate Change (Communication of September 26, 2011).

For the Ankeniheny Zahamena Corridor (CAZ) NPA, CI, as delegate manager, is developing a certification project covering 47 million tons of CO₂ over 30 years (2008 first crediting year – 2037 last crediting year). The first crediting period is 2008 – 2017. An emissions reduction purchase agreement (ERPA) signed between the Malagasy government and the BioCarbon Fund in 2008 concludes the first purchase of certified carbon credits. Therefore, carbon-related projects in the area have the objective of protecting the CAZ, a “Natural Resources Reserve”. Effective protection can be achieved through the implementation of an appropriate governance system and adequate measures both inside (core area, ZOC, ZUC, ZUD) and outside the protected area (buffer zones). The agreement between the Republic of Madagascar and IBRD, as Trustee of the BioCarbon Fund, sets the conditions for the purchase of 430 000 tons of avoided emissions over 4 years (2009-2012). These 430 000 tons of carbon cover 80 000 ha of primary forests to be preserved over 30 years. Through its support to REDD projects, the BioCarbon Fund has two objectives:

- Promote the attractiveness of private capital in developing countries experiencing difficulties to position themselves on the carbon market,
- Promote the improvement of local livelihoods in compliance with the principles of the CBD and the Convention to combat desertification (recitals of the purchase agreement of April 15, 2008).

B. DISTRIBUTION MODEL FOR CARBON REVENUES (See legal annex 1)

I. The “carbon property rights” issue

While this element is not essential for the study, clarifications are needed to help players formulate and address the issues at stake.

Carbon, one of the most abundant elements, is legally defined as a “thing”. All *things* are not *goods*. A form of ownership is required to transform a thing in a tradable good. Therefore, the idea of carbon property does not legally make sense. In addition, it would imply that “carbon stocks” in trees could be tradable. However, the principle of economic mechanisms promoting the reduction of greenhouse gas emissions and the storage of carbon is based on paying for a difference (variation of stocks, reduction of emissions compared to a baseline) but never for a stock. In other words, a country or an individual could not claim payment for carbon stocks on its/his/her territory or property, unless proven (based on mechanisms currently under UNFCCC negotiations) that such stocks would disappear without intentional and active protection.

“Carbon credits”, rather than carbon, are what are likely to be owned. Under the provisions of international mechanisms, different categories of credits have received specific names. Credits are called CER (Certified Emission Reductions) for the CDM. In the case of REDD+ projects, the private certification bodies name carbon credits, e.g. Verified Emission Reductions (VER) by VCS.

Tradable carbon credits are intangible products that do not exist before launching the series of processes needed to create them. Specific development processes are required (carbon measurements, development of a reference scenario, establishment of MRV systems, assessments related to social safeguards, estimation of leakage, credits certification, etc.) as highlighted in the CAZ Project Design Document (PDD). In other words, carbon credits are produced through a process and not through a project.

Under the CDM, CERs are related to the increase of eligible stocks (what is considered additional) from the creation and growth of plantations. The question of carbon credits property rights in the case of CDM plantations has rarely been raised, as it is implicit that the project developer investing in a plantation is the one who should benefit from the carbon credits generated by the project. If plantation occurs on a third party’s property, land leasing terms could apply or contract terms could be defined to share the benefits between the landowner and the project developer. In some cases, the government could tax revenues from the sales of carbon credits.

How does the situation differ under REDD+ projects focusing on “avoided deforestation” such as in the CAZ? It is the team’s opinion that it is very similar to the case of a CDM plantation on the land of a third party: **while the project developer (or co-developers) should own the carbon property rights, the government has the right to claim part of the benefits as the potential owner of the CAZ forests.**

On the legal tenure aspect, despite the statements contained in the orders on the temporary protection of NPAs and in the management contract of the CAZ NPA, the protected area is not “the property of the State” as it is not registered as such. Since the 2005 tenure reform, there are no legal documents confirming such statements: Article 38 of Law 2005-019 from October 17, 2005 provides for the establishment of a specific legal regime for lands governed by laws on forests and protected areas. It should be pointed out that the COAP (Code for Protected areas, Law 2001- 005 of February 11, 2003) only applies to national parks, strict nature reserves and special reserves and not to “natural resources reserves” such as the CAZ. In addition, the Inter-ministerial Order #52005/2010 of December 20, 2010 explicitly foresees the possibility of delivering land certificates in the buffer zone. However, this would not be possible in the CAZ *if the classified forests or the natural resources reserve in the relevant boundary were registered*¹.

II. The distribution scheme

In 2013, the DGF and CI had fairly advanced discussions on the fixed distribution shares. They seemed to have reached a form of consensus on the following distribution:

- 50% of revenue allocations to the local populations/communities for community initiatives (including management fees of local supervision structures) related to natural resources management, conservation, and community development aiming at the reduction of CO2 emissions;
- 20% of the revenues to the Forest Administration to supervise the project and support monitoring and control activities;
- 20% to cover the management fees of the project manager;
- 4% to cover the trading costs for carbon credits;
- 3% for various technical fees (MRV, registry);
- 3% for overall fees of the general management of the Carbon Fund (the UCPE would certainly play the initial role of Trustee).

This distribution excludes the territorial authorities from revenue sharing although they are impacted by conservation (loss of exploitation opportunities) and play a role in the local development of the relevant territories. The option selected will be specifically for the carbon revenues linked to the BioCarbon Fund but might apply to all future revenues from the REDD+ project. It could also set precedence for revenue distribution from other REDD+ projects in Madagascar.

The team organized several stakeholders’ consultations with multiple visits in the CAZ (particularly in the rural communes of Maroseranana and Didy, in addition to discussions with VOI Federations in Moramanga). Furthermore, representatives of VOI Federations and the Mayor of Didy participated in the debriefing of the mission, on May 17, 2013 in Antananarivo.

Consultations with various stakeholders and thorough discussions within the steering committee have indicated that:

¹ Moreover, in addition to tenure activities developed in Didy for the COGESFOR Project (land tenure of VOIs and registration of the Ambohilero Forest), the delineation of the PA was carried out by the current delegate manager in 2007 and has not been updated since. Currently, the CAZ is not registered on the plot plans of topographic services and the domains of Ambatondrazaka or Tamatave.

- The principle of 50% allocated to local and neighboring populations was widely accepted. During field meetings with community representatives, some have expressed the wish to receive up to 80% but it was more an attempt than a real claim. *The 50% portion also includes management fees for consultants.*
- The principle of a percentage allocated to communes involved in the management of the CAZ was not contested. The question was from which allocation this percentage should be taken. The first assumption was to deduct it from the allocation to the Administration but it was quickly evident that the funding needs for supervision and monitoring, which are crucial to control deforestation and degradation, would be affected if the revenues anticipated in the REDD Project PDD were reduced. On the other hand, the need for collective activities to benefit all neighboring communities (not only the VOIs) was often highlighted (see below). Logically, the communes should implement such activities and receive a portion of the funds allocated to populations for this implementation effort.
- The team recommends that 10% of the funds be allocated to the CAZ communes, along with specifications on the use of such funds. The Administration Agency will be the supervising entity and will regularly assess that the funds are adequately and efficiently used.
- The Administration Agency should be paid to play this supervisory role. In the short run, it would be possible to mobilize 4% of the USD 1.5 million (USD 60,000) provided in the ERPA. In the medium term, the Agency would have to be paid (even if it is the delegate manager). This would not be a problem if the revenues were higher than the needs. However, if it were not the case, the agency would have to deduct such payment from the funds it manages, i.e. from the 50% allocated to populations (this percentage would most probably become the adjustment variable of the whole system).

The distribution formula suggested by the team is very similar to the one discussed between the DGF and the delegate manager before the mission. It will be as such:

Distribution scheme recommended by the study team:

- 20% for the PA and REDD+ Project manager to cover management and operating costs
- 20% for the DGF and the DREFs to ensure supervision and control
- 3% for the trust agency responsible for managing and disbursing the carbon funds
- 3% for specific technical fees for the carbon project (MRV, reference scenario updates)
- 4% for marketing/trading fees. This would only apply to future revenues. Under the ERPA, the BioCarbon Fund will cover the trading fees.
- A block of 50% allocated to local populations, divided in two parts:
 - 10% to the CAZ communes for **collective social investments** (schools, clinics, water system, etc.) to benefit the entire population. Such investments could be considered as co-benefits of the sustainable management of the CAZ.
 - 40% to communities (including management fees of potential consultants), focusing on (i) individual or collective productive investments in income-generating activities and improvements of the agro-sylvo-pastoral system, and (ii) direct conservation incentives.

III. Coverage rate of financial needs based on the proposed distribution scheme

The study team assessed the coverage rate of financial needs based on several assumptions of future annual REDD+ revenues. Financial needs were estimated for 3 functions:

- (i) The REDD+ Project management through the annual costs of the delegate manager,
- (ii) Costs related to the carbon project (registration and verification, trading) based on the figures indicated in the PDD,
- (iii) Supervision and control costs assumed by the forest administration through the DGF (supervision) and the DREFs (control)².

The financial needs of VOIs, local communities, and municipalities (for collective investments) could not be estimated. Such process would require thorough field surveys to estimate an aggregate opportunity cost for households that lost their access rights due to the creation of the NPA. To this opportunity cost, we would add the estimated value of investments aiming at sustainable economic alternatives (agricultural intensification, livestock, agroforestry, IGA) and reduction of the poverty level.

The following tables show the coverage rate of annual financial needs under several annual carbon revenues scenarios, for the 2013-2020 timeframe, which would be crucial for the project (longer term projections seem arbitrary).

➤ **Reminder of the assumptions in the PDD:**

- Price per ton of avoided CO₂: \$7.00
- 15% of credits in the reserve (not traded but registered under VCS-CCB)
- 70% of credits traded (available credits to be sold after putting 15% of the credits in the reserve to take into account the risk of non-permanence. Based on the financial tables in the PDD, credits in the reserve are also registered with VCS)
- Project performance index (100%= zero deforestation):

2013	2014	2015	2016	2017	2018	2019	2020
53%	61%	69%	76%	84%	84%	84%	84%

² To assess the funds needed to ensure efficient supervision and control efforts, the study team reviewed the expenses incurred by the company exploiting the Ambatovy mining site to cover the forest administration activities in Ankerana (6800 ha). Deforestation in this area, managed according to high environmental standards, has decreased from 2.5% in 2009 to 0.1% in 2011, based on information provided by the company. By extrapolating *the expenses for control activities* for this area to the overall CAZ, the annual funding needs would be \$3 to \$3.5/ha/year (the cost of high quality control by the forest administration in the field). However, it should be reminded that (i) Ankerana is a pilot area, benefitting from strong investments, which could not be the case for the entire CAZ and (ii) there are scale effects and scaling-up would result in a significant decrease of cost per hectare. For the 370,000 ha of the CAZ REDD project, the financial needs of the administration are estimated at \$500,000 – \$600,000 to ensure a high level of monitoring, knowing that revenues are not sufficient to achieve such level. Another approach based on the DREF planned budgets (estimated with CI) indicates an annual cost of \$80,000 for control activities only. We decided to find a compromise between the two estimates and set the financial needs at \$300,000 /year to ensure adequate supervision and control.

The reference scenario (the projected deforestation rate in the absence of the project) was set at 1.26% per year. This rate is much higher than the current observed annual rate of about 0.6 % in the CAZ. The average deforestation rate in Madagascar was estimated at 0.83% per year for 1990-2000 and at 0.53% per year for 2000-2005 (the annex includes a critical assessment of the assumptions in the PDD). This implies that in 2014 for instance, with a projected effectiveness rate of 61%, the annual deforestation rate would be 0.49%; with the projected scenario of 1.26% per year, this would mean a “decrease” of the deforestation rate by more than twofold compared to the “without project” projections.

Table 1: Simulations of potential revenues and financial needs

		Optimistic assumption (PDD)			Median assumption			Pessimistic assumption			Assumption of low prices and high volumes		
	Percentage of revenues	Average annual REDD revenues between 2013 and 2020 (70%, \$7)	Average annual needs between 2013 and 2020 (70%, \$7)	Coverage rate (\$7, 70%) (rev/needs)	Average annual REDD revenues between 2013 and 2020 (30%, \$3)	Average annual needs between 2013 et 2020 (30%, \$3)	Coverage rate (30%, \$3)	Average annual REDD revenues between 2013 and 2020 (30%, \$2)	Average annual needs between 2013 and 2020 (30%, \$2)	Coverage rate (30%, \$2)	Average annual REDD revenues between 2013 and 2020 (70%, \$3)	Average annual needs between 2013 and 2020 (70%, \$3)	Coverage rate (70%, \$3)
Manager	20%	2 109 300	325 333	648%	387 422	325 333	119%	258 282	325 333	79%	903 986	325 333	278%
Forest Administration	20%	2 109 300	300 000	703%	387 422	300 000	129%	258 282	300 000	86%	903 986	300 000	301%
Local communities	40%	4 218 600	[4 218 600]*		774 845	[774 845]*		516 563	[516 563]*		1 807 971	[1 807 971]*	
Local authorities	10%	1 054 650	[1 054 650]*		193 711	[193 711]*		129 141	[129 141]*		451 993	[451 993]*	
Trust Agency	3%	316 395	[316 395]*		58 113	[58 113]*		38 742	[38 742]*		135 598	[135 598]*	
Carbon project	7%	738 255	922 225	80%	135 598	457 318	30%	90 399	422 450	21%	316 395	542 763	58%
Total	100%	10 546 499	7 137 202		1 937 112	2 109 320		1 291 408	1 732 229		4 519 928	3 563 658	
"Profit"			3 409 297			- 172 208			- 440 821			956 270	

(*): These are not the actual financial needs (not determined); we simply used the revenue figures based on the distribution formula.

Comments:

- *Optimistic assumption*
 - The optimistic assumption of average annual carbon revenues of about USD 10 million between 2013 and 2020 is based on hypotheses of (i) a relatively high carbon price, (ii) good sales performance (70%), and (iii) high effectiveness level of the project.
 - The funding needs of the project manager and the forest administration are largely covered under these hypotheses. The optimistic assumption produces a “carbon profit” (revenues are much superior to the funding needs)
 - Such “profit” could be allocated in various ways; the most obvious one is to prioritize the local populations to compensate the opportunity costs for the loss of access to their territories and to reduce poverty.
- *Median assumption*
 - Under this assumption, carbon price is low (US\$3/tCO₂) and there is a shortage of buyers
 - Financial needs of the manager and the administration are covered with a slight surplus
 - The REDD Project costs (registration, verification, trading, etc.) are only covered at 30%.
 - The low surplus does not compensate the deficit related to the specific costs of the REDD Project. There is an overall deficit.
 - It would be logical to secure funding for the 3 pillars of the REDD project (delegate manager, supervision and control administration, “carbon bureaucracy”). The adjustment variable would be the percentage allocated to populations and communes.
- *Pessimistic assumption*
 - Carbon prices are low (US\$2/tCO₂) and the project has a hard time selling its carbon credits (low price levels are often associated with a lack of demand)
 - The financial needs of the 3 pillars are not covered, including those specific to carbon.
 - The percentage allocated to communes and populations would be the adjustment variable, posing a risk to the effectiveness of the project (fund transfers are not sufficient to ensure the acceptance of conservation).
- *The “low prices, high volumes” assumption*
 - Under this assumption, carbon profit is lower than under Assumption 1 a
 - Carbon project costs are only covered at 58% but excess from the upper budget lines (management, administration) allows some transfers.
 - This assumption highlights the high costs of “carbon bureaucracy”, notably the VCS and CCB (associate labels) registration fees, which are calculated based on volumes emitted (USD 0.15 per ton), independently of carbon prices. CI also budgets high management and marketing fees.

All scenarios are dependent on the situation of the carbon voluntary market (demand, price) as well as on project effectiveness. Hypotheses of the progression of project effectiveness (from 20% to 80% in 2017) will be based on actual investments:

“The Effectiveness Index was conservatively estimated based on project implementation activities. We assume that in the first year we would have an effectiveness of 0.2 and 0.84 in the year 2017. The yearly increment on the EI was proportional to the projected costs” (p. 129)

It means that if carbon demand and price are not high enough, investments in conservation incentives would be limited and therefore the project effectiveness index would be lower. Another note in the PDD should be quoted here:

“Past experience shows that deforestation in Madagascar decreases during periods of strong regulation; and then suddenly increases as soon as the regulations are no longer enforced. Deforestation is also widely associated with political uncertainty” (p. 28).”

The deforestation “rebound” observed between 2005 and 2011 (based on the latest available data) shows that a steady increase of the project effectiveness index is not a strong assumption as it depends on the largely unpredictable political and institutional context in Madagascar.

IV. Implications for contracts

The precedent assessments show that the percentage allocated to populations (communities + communes) would be the “adjustment variable”. Its absolute value would depend on the actual carbon revenues. This should be mentioned in the terms of reference of the Administration Agency. The CIROE will validate the adjustment before the conclusion of agreements with VOIs and communes.

c. **MANAGEMENT OF THE PERCENTAGE OF REVENUES ALLOCATED TO COMMUNITIES**

Once the distribution formula adopted, simple and operational methods should be identified to transfer the 50% (including the 10% to communes) to the relevant communities. Consistently with the terms of references of the Administration Agency, we recommend establishing annual grant agreements with communes and VOIs to implement projects aiming at behavioral change to promote the sustainable management of renewable natural resources. (See Legal annexes 2 and 3).

I. Proposed scheme

The fixed distribution formula selected by the steering committee is the following:

Distribution formula negotiated before the study	Recommendations and specifications defined by the study
20% to the State	20% to the MEF and the DREFs for the supervision and control of activities in the CAZ NPA, including monitoring and evaluation by the VOIs
20% to the NPA manager	
3% to the trust agency	3% to the trust agency to cover administration and financial control costs. Funds could be invested before disbursement to recipients, based on defined specifications. Interests are used either for the project or for the capital of the foundation.
4% for the trading of carbon credits	4% for trading and management costs of sold certified (VCS and CCB) carbon credits
3% for the MRV and other costs of the REDD Project	The delegate manager currently implements these tasks.
50% to the local populations	40% to local populations, to be managed by communes and VOI federations based on PES contracts with VOIs, farmers' organization, agricultural cooperatives, and forest cooperatives.
	10% to communes to implement collective social investments and to improve governance

The overall distribution model would be as follows:

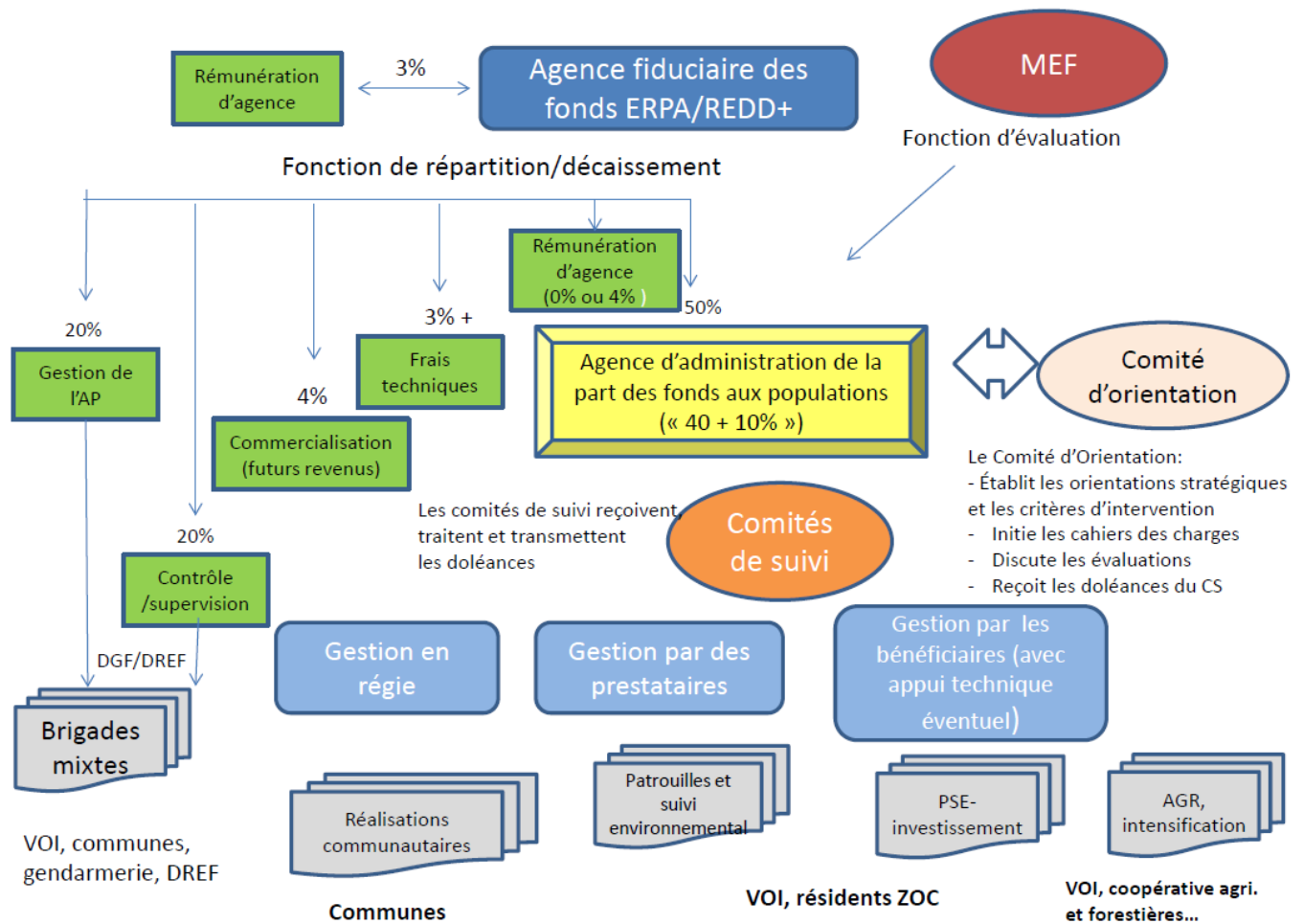


Figure 1: Overall distribution model

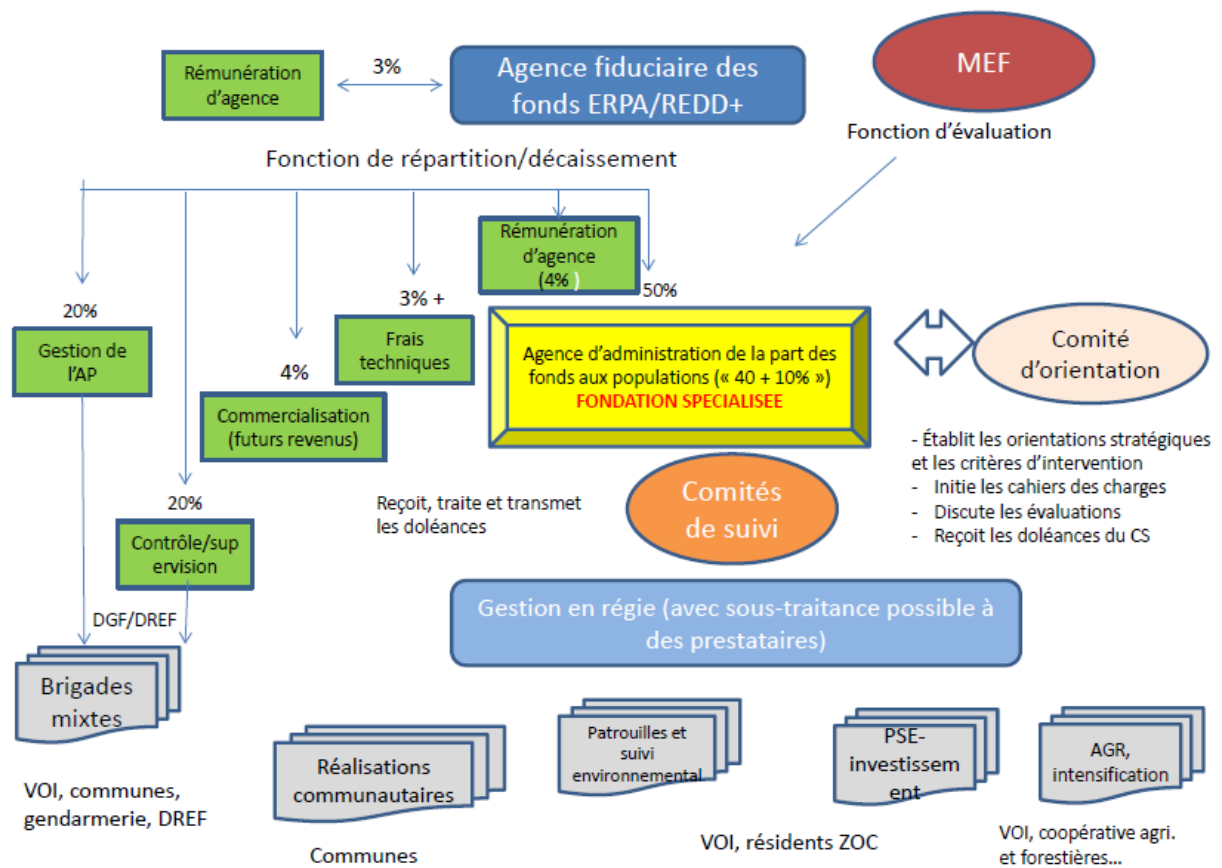


Figure 2: Financial administration by a foundation, “in-house” management of services

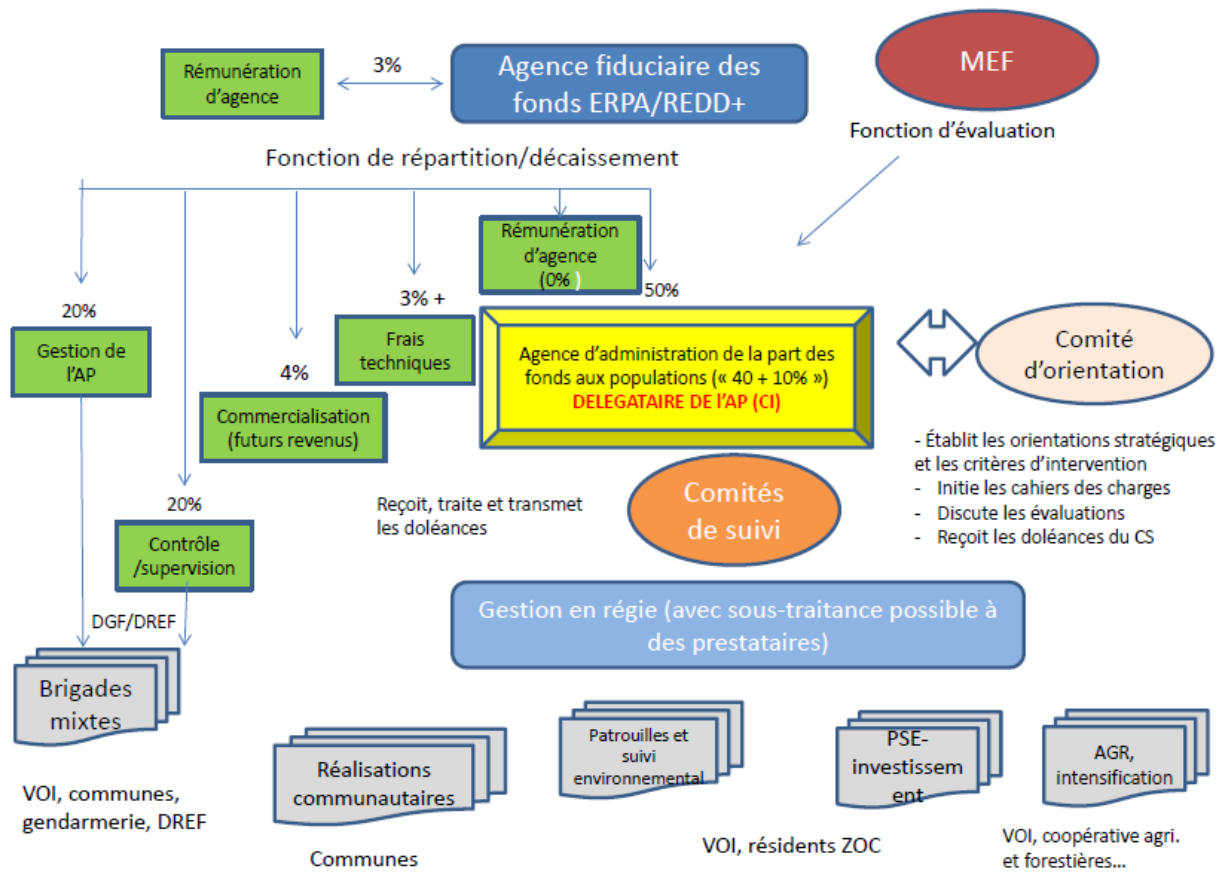


Figure 3: Financial administration by delegate manager (CI), “in-house” management of services

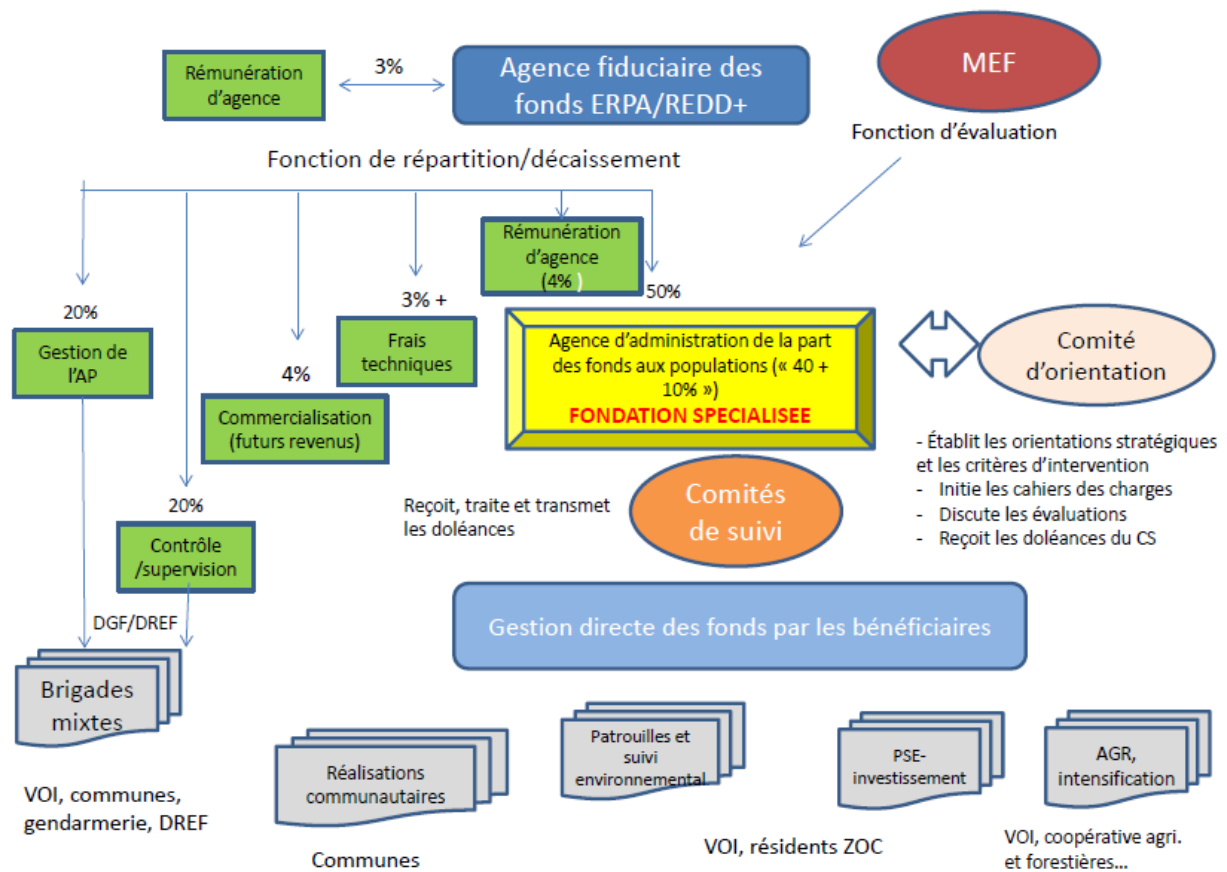


Figure 4: Financial administration by a foundation, direct management by recipients (VOIs)

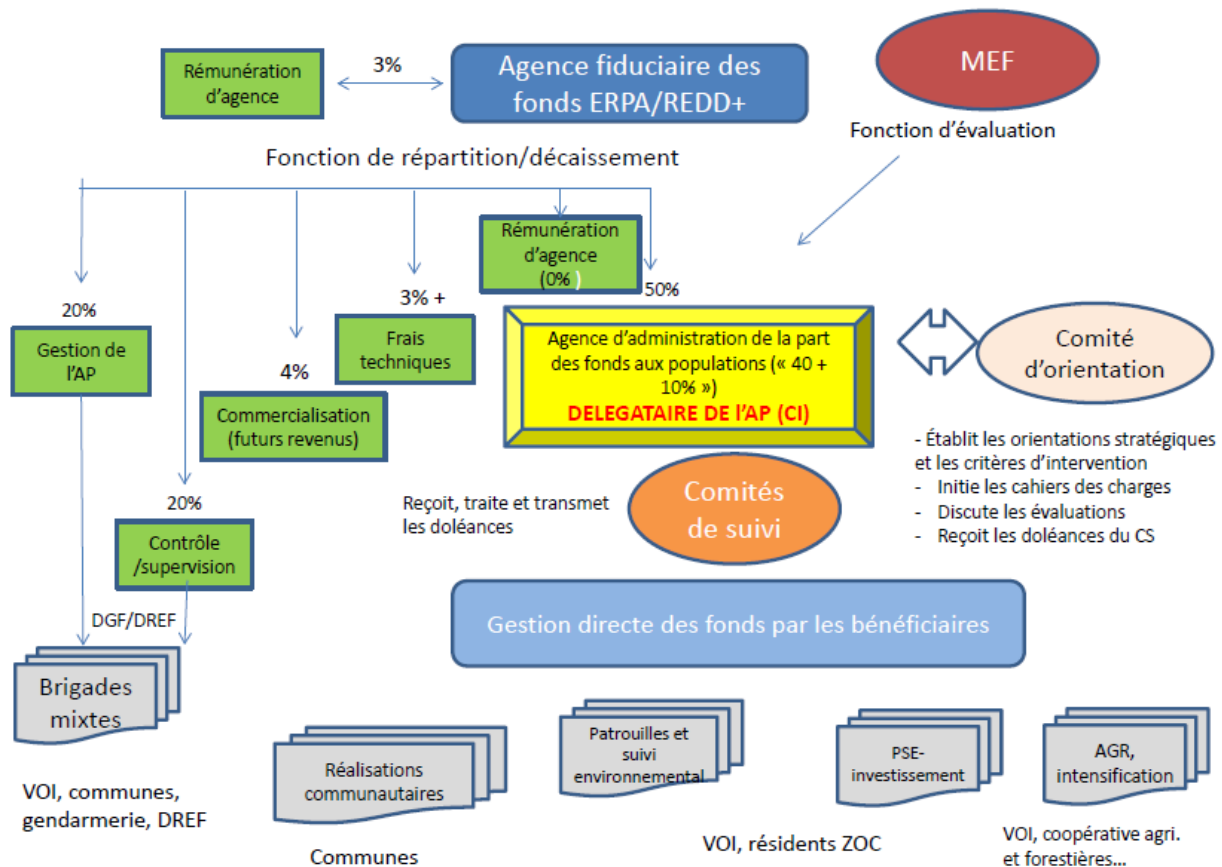


Figure 5: Financial administration by the PA delegate manager (CI), direct management of funds by recipients (VOIs)

Brief description:

1. **Trust Agency** for the ERPA/REDD+ funds: the UCPE currently fulfills this role. Another entity, such as a foundation, could take over in the future.
2. **An “Administration Agency” will be in charge of managing the portion of funds allocated to local populations.** This agency would not necessarily be the delegate manager (figure 3 and 5) and could be a third party (figures 2 and 4).
3. There are three possible implementing options for the portion of funds allocated to local populations:
 - “In-house”, by the agency itself (project selection, supervision, etc.), (figures 2 and 3)
 - Through specialized consultants (this option could be combined with the in-house option)
 - By the recipients themselves (figures 4 and 5): an association of VOI federations, or VOIs and communes would decide on the use of funds (based on predefined specifications). This type of association could form cooperatives or rely on external consultants.

These three options are not mutually exclusive. Management could be implemented in-house and/or by using external consultants in some parts of the CAZ while the recipients themselves could

be in charge in other areas. In the Didy area, VOI federations and the commune have expressed their interest in managing the funds themselves. The team recommends testing this option and leaving the choice to the relevant VOI federations and communes.

- The steering committee will define the strategic directions. A section covers the steering committee above. The committee would be based on the Interregional Steering and Evaluation Committee (CIROE).
- A Sector-wide Coordination Committee (CCS) could implement some of the functions of the monitoring committee. The CCS would gather the communes, the local communities, the farmers' organizations and the agricultural and forest cooperatives participating in the management of natural resources in the six sectors (see section on the CCS).
- The CAZ communes would receive a share on the 10% to be allocated to communes. To be eligible, communes must have over 50% of their territory located in the CAZ. The amount received will be allocated to collective investments aiming at improving local livelihoods in the CAZ. Evaluations by the MEF will ensure that communes effectively fulfill this mission.
- Activities to be implemented by the VOIs with the funds would include:
 - (i) Income-generating activities (IGA) and agricultural intensification efforts particularly in non-forest areas
 - (ii) Surveillance and environmental monitoring patrols in the CAZ.
- If the VOIs associated to the communes manage the funds, specific terms of reference will be established to define the obligations towards the populations in the ZOC, by setting incentives and conditions (such as PES) to comply with legal obligations as well as recommendations and support efforts for the modification of agro-sylvo-pastoral practices, in partnership with a consultant.

Notes regarding the “direct management by recipients” option:

This third option reflects the interest of some local stakeholders (VOI federations/communes).

We recommend that a portion of the 40% allocated to local communities be applied to support activities directly managed by the recipients. However, it should be a competitive fund, based on merit, reversible, and not a vested right. The Administration Agency could set eligibility criteria for a prior evaluation of the maturity of the recipient VOI federations/communes (past history, governance mode, appreciation by partners etc.).

The Administration Agency and potential supporting entities will restrict their interventions to technical assistance and monitoring and control procedures. This will enable the VOIs to engage in the management of the assistance, enhancing transparency and reducing the level of discontent/misunderstanding in the interaction between the VOIs and the supporting entities.

We recommend **conditional autonomy** in managing the support, based on the results of an annual evaluation of:

- Compliance with internal fund management procedures,
- Consistency between the use of funds and the objectives stated in the request for funding,
- And analysis of the actual allocation of funds between operational costs (VOI federations, specifically the leaders, communes) and funding of activities.

Strict procedures must be established for money withdrawal from banking and microfinance institutions by the recipients, for disbursement programs (by installments based on planned activities), and for purchases and payments for services as validated by the Administration Agency: prior approval by the board, double signature procedure, procurement standards, record-keeping,

etc.

Recipients must comply with the **objectives** stated in the request for funding by taking appropriate actions (in the case of a selection of actions based on discussions among the General Assembly after securing the funding, for instance). Compliance should be also ensured if the planned actions have already been stated in the request for funding to the Administration Agency.

The evaluation will focus on the **actual allocation** of funding. It is crucial that funding does not cover operational costs unrelated to activity implementation.

II. Advantages and drawbacks of the proposed options

1. Separation of the functions of administration agency and of PA delegate manager

The delegate manager (CI) of the CAZ protected area currently plays the role of administration agency (managing the funds allocated to local populations) under the management delegation agreement for the CAZ NPA expiring at the end of 2014 (unless extended). Under the proposed option, the delegate manager will not automatically fulfill the administration function. The government will decide either to entrust the administration agency and management functions to the same organization, or to designate a separate entity to be the administration agency.

The potential benefits of entrusting the function of administration agency to the delegate manager (“integration”) are:

- Ensuring the consistency of efforts involving the populations under a single PA management strategy
- Potentially exhibiting stronger responsiveness in implementing projects and corrective actions thanks to the integration of both functions.

The potential benefits of entrusting the function of administration agency to an organization other than the delegate manager (“dissociation”) are:

- Allowing an easy shift to another agency by the government if the results are not satisfying
- Being able to select an organization that is truly specialized in community development.

The main drawback of the “integration” option is the risk of having a single operator potentially underperforming in the areas of community development and conservation and being in conflict with some local players but difficult to replace due to its role as delegate and co-manager (including administration) of the carbon project.

The drawbacks of the “dissociation” option are related to the differing approaches that the operators may take as well as to the potential lack of responsiveness if the operational functions are split. A sound cooperation between both operators is clearly needed for this option to be viable.

2. The option of direct funding management by recipients

This option was suggested following some discussions with representatives of the VOIs during field visits. This option reflects a strong demand from some communities (but not all).

The potential benefits of direct management include:

- Stronger involvement of VOIs and communes in implementing actions to promote conservation and potential ownership of such PES approaches.
- Better understanding of potential issues and constraints pertaining to activities and efforts, and of the conditions of local ownership.
- Opportunity to develop local associations for service provision, with resident experts (this is currently not the case as service providers must travel long distances)
- Potential reduction of costs related to intermediation and better timing of interventions
- Collaboration between the VOIs, the communes and other entities (agricultural and forestry cooperatives) for a common conservation-development project.
- Through the financial accountability of communities, enhancement of the 1996 GELOSE law approach that initiated the principle of transfer of natural resources management to communities.

The drawbacks and risks of this option include:

- The risk of embezzlement by local officials. This risk can be mitigated through supervision by the administration agency in charge of regular audits.
- The risk of gradual prioritization of development actions at the expense of conservation incentives, particularly in the ZOC. The specifications must be precise and strict supervision by the administration agency will be necessary.
- The risk of favoritism during procurement towards local service providers that do not have the needed capacities to carry out the missions.

This option, as any innovative option, presents clear risks. However, some VOIs have strong expectations as highlighted by the consultation in Maroseranana and particularly in Didy. The debriefing workshop held in May 2013 in Antananarivo confirmed such expectations and it would be difficult to ignore them. Furthermore, the experience will continue only if audits and evaluations produce satisfactory results. It can be suspended in case of serious or recurrent problems.

Payments for environmental services (PES): implementation components

The application of PES implies the use of *direct conservation incentives*, instruments that involve the payments or transfers of benefits to the populations that are the direct users of the natural resources targeted for conservation. Such payments are subject to the compliance with contractual commitments for the environment. As direct conservation incentives, PES are often viewed as more efficient than the *indirect incentives* of Integrated Conservation and Development Programs (ICDP)³ serving as the guiding principle for the NODE efforts carried out by CI in the CAZ.

³ Rice R. E., C. A. Sugai, S. M. Ratay and G. A. Fonseca. 2001. Sustainable forest management: A review of conventional wisdom. *Advances in Applied Biodiversity Science* 3:1-29 Washington, DC: CABS/Conservation International.

Nielsen E., Rice R., 2004, Gestion durable des forêts et incitations directes à la conservation de la biodiversité, *Revue Tiers Monde*, n°177, pp. 129-152.

Implementation of PES generally entitles an agreement to respect a zoning plan developed in a participatory way ("limitation of usage rights" component of the PES), associated with investments in favor of communities and/or households to improve the productivity of their agricultural practices, to diversify their sources of revenues (IGA), to restore degraded areas, to plant trees and hedges, to develop agroforestry systems ("investment" component of the PES), etc. If the "limitation of usage rights" component involves collective agreements and community controls (patrols, dina, etc.), the "investment" component targets in principle households (even if some investments can be managed at the level of lineages or a broader community). The two components of payments (or in-kind transfers) must be subject to the compliance with the agreement (particularly the zoning plan). It is more difficult to suspend the "investment" component (which involves training, pilots) compared to the "limitation of usage rights" of the PES. The efficiency of the PES requires collaboration with the users whose practices have direct impacts on the ecosystem, regardless of their traditional usage rights. The resulting recommendation is to target in priority the residents of the ZOC. VOIs also have to be part of the PES agreements, particularly for the regulation of collective actions.

The elements needed to establish PES exist in the CAZ (management transfers to VOIs, zoning, IGA, pilots...). Conservation agreements tested by CI in some VOIs are somewhat similar to PES but have not integrated the conditional "payment" component based on compliance with zoning plans. They are also limited to the dissemination of IGA. The same applies to the agro-ecological innovations proposed under the COGESFOR project.

The payment timeframe cannot be established in advance but planning a continuous effort over more than ten years will be necessary and will require sustainable funding mechanisms. Sharing the various benefits related to protected area and forest conservation (carbon revenues, budget support, official development assistance) should support the implementation of PES.

III. Potential beneficiaries

The first implicit recommendation is to integrate the redistribution of carbon revenues in the CAZ in the existing legal, regulatory, and contractual frameworks (see Annex 4) and to significantly engage in genuine conflict prevention policies (Annex 5). Three specific recommendations are made to enhance the transparency of enforcement.

1. Assess the distribution of stakeholders using a spatial analysis with a specified quantitative base

The UN-REDD Program defines REDD+ stakeholders as those "groups that have a stake/interest/right in the forest and those that will be affected either negatively or positively by REDD+ activities. They include relevant government agencies, formal and informal forest users, private sector entities, Indigenous Peoples and other forest-dependent communities". (ONU-REDD+, 2012 (3)).

In order to define a distribution formula for carbon credits revenues and to reach the objectives of carbon storage in the CAZ primary forest over the long run (90 years), a comprehensive and substantiated base of relevant stakeholders should be defined from the start. This base will likely evolve in the future.

The base can be developed using spatial analyses based on data from the geographic information system of the delegate manager of the CAZ NPA. These evolving data should regularly be made available to the public, as they will inevitably become selection criteria to guide the annual decisions on the redistribution of revenues from the sales of carbon credits.

- The number of communes covered by the project remains vague and should be specified:

Source	Number
Management delegation agreement 2012	24
CI, 2013 – VCS monitoring report 2008-2011 – p. 13	25
CI, 2013 – VCS monitoring report 2008-2011 – p. 15	23

In our opinion, there are **24 communes** qualified for redistribution of revenues from the sales of carbon credits, based on the number of communes mentioned in the management delegation agreement for the CAZ. It should be noted that it is possible and desirable (to avoid diluting the funds) to select only part of the communes that could potentially be the direct recipients of the revenues from the sales of carbon credits. Criteria are highly variable but based on the requirement to have at least 10% of the commune's territory in the CAZ NPA, the number of relevant communes should be reduced to 14 (See Annex 6).

- The number of management transfers (MT) should be considered based on the specified objective of creating a green belt around the PA.

According to the delegate manager of the CAZ NPA, 128 MT are needed to establish the green belt. Based on the available GIS data, 115 MT are currently considered with variable progress.

Table 2: Progress of management transfer agreements by federation

FEDERATION	Ongoing process	Proposal	Signed agreement	Renewed agreement	Under evaluation	Total
FITOKISANA			1	19		20
SF/FVM (FITOKISANA)	5		1			6
MIARADIA	3	3	14	1	1	22
TARATRA	2	4	6	1		13
TSARAFANIRY	5	2				7
SF/AROVAN'ALA (TSARAFANIRY)	6					6
VAHITRINIALA	3	4	8	2	1	18
VANONA	4	7	2	2	4	19
SF/LAPIRANA (VANONA)	4					4
TOTAL	32	20	32	25	6	115

It is highly desirable for these management transfers to be integrated in the long term in the legal and regulatory provisions of the GELOSE law and its implementing decrees, rather than within a unprotected conventional framework with the delegate manager of the PA as considered in the project description report submitted to VCS (CI, 2013, p. 13). The latter option would challenge all rights acquired by the communities through the PE2 and put an end to their status as special partners of the forest administration.

We consider that only the VOIs approved by the forest administration, including those signatories of an existing management transfer agreement, are the only ones that could potentially participate in

the decision-making process and benefit, as local communities, from the revenues from the sales of carbon credits. This represents 31 signed agreements (25 renewed contracts and 6 that are being evaluated).

The renewal and the conclusion of agreements shall be subject to careful planning to influence the decisions on the distribution of revenues from the sales of carbon credits in the CAZ, particularly so that agreements signed during the year could be supported.

➤ Number of affected Federations

The VOI federations the CAZ were *a priori* established based on Ordinance # 60.133 of October 30, 1960 pertaining to the general regime for associations in Madagascar, and modified by Ordinance #75-017 of August 13, 1975. Therefore, they are considered legally incorporated.

Table 3: Distribution of VOI federations by sector

Sector number	Number of federation	Affected federations
1	1	Vanona + Lapirana sub-federation
2	1	Fitokisana + FVM sub-federation
3	1	Taratra
4	1	Tsarafaniry + Arovan'ala sub-federation
5	2	Miaradia + Vahitriniala
6	1	Miaradia

It should be noted that the distribution of the VOI federations does not match the administrative divisions of sectors as proposed by the delegate manager of the protected area. For some sectors, there is a federation and a sub-federation, without an explicit explanation of the relationship between them. One federation straddles two sectors.

This situation creates a challenge for federations to be considered as decision-making structures at the sector-wide level as proposed in the CAZ REDD+ project and in the actual state of the Development and Management plan and should be rapidly clarified.

➤ The number of households affected by compensation measures should also be estimated, particularly based on the identification of the most vulnerable groups.

In the CAZ ESMP (CI, 2012, p. 75), 2,101 vulnerable households were identified as being particularly affected by the project (PAP). They are distributed on 7 communes: Ambohimana (518 PAP), Fetraomby (62), Maroseranana (400), Ambohibary (160), Lakato (235), Morarano-Gare (360), and Fito (755), but all are residents of the protection zone and/or periphery areas of the CAZ NPA (CI, 2012, p.76).

It appears that the most vulnerable populations, who satisfy the selection criteria as “particularly affected by the project” (PAP) and are directly affected by the changes in agricultural practices are the populations residing in the ZOC. The ZOC covers the communes of Anjahama (Brikaville district, Atsinanana region), Didy (Ambatondrazaka District, Alaotra Mangoro Region), and Fito (Toamasina II District, Atsinanana Region) (see Annex 2).

Only the population living in the ZOC of the Didy commune was assessed (141 households). The census of the ZOC households in the Fito and Anjahama communes is still pending. While access is difficult for the supporting organizations, these populations should be the priority targets for compensations aiming at agricultural intensification within the protected area (Desbureaux 2012, p. 88). It should be noted that estimations do not take into account the population growth (which is significant in the area at over 4% annually). Given the timeframe of REDD+, population growth and migration dynamics should be considered (Desbureaux, 2012).

2. Spatially plan the activities and consider the durability of their impacts on forest conservation, applying an explicit tenure strategy based on the Development and Management Plan of the CAZ NPA

The targeted areas for conservation, forest rehabilitation, and deforestation reduction efforts should be more accurately defined and linked to the type of activities or investments funded by the revenues from the sales of carbon credits in order to:

- Assess the impacts of activities on deforestation/plantation dynamics through monitoring based on satellite imagery and
- Link the investments funded by the revenues from the sales of carbon credits to explicit tenure strategies guaranteed by the communes.

At the level of the CAZ, this strategy is based on the Development and Management Plan. On the legal tenure aspect, **despite the statements contained in the orders on the temporary protection of NPAs and in the management contract of the CAZ NPA, the protected area is not “the property of the State” as it is not registered as such.** Since the 2005 tenure reform, there are no legal documents confirming this claim. Article 38 of Law 2005-019 from October 17, 2005 provides for the establishment of a specific legal regime for lands governed by laws on forests and protected areas. It should be pointed out that the COAP (Code for Protected areas, Law 2001- 005 of February 11, 2003) only applies to national parks, strict nature reserves and special reserves and not to “natural resources reserves” such as the CAZ. In addition, the Inter-ministerial Order #52005/2010 of December 20, 2010 explicitly foresees the possibility of delivering land certificates in the buffer zone. However, this would not be possible in the CAZ if the classified forests or the natural resources reserve in the relevant boundary were registered.

Moreover, in addition to tenure activities developed in Didy for the COGESFOR Project (land tenure for VOIs, registration of the Ambohilero Forest), the delineation of the PA was carried out by the current delegate manager in 2007 and has not been updated since. Currently, the CAZ is not registered on the plot plans of topographic services and the domains of Ambatondrazaka or Tamatave.

- The needed finalization of the Development and Management Plan (DMP)

Since the development projects of the CAZ NPA and of REDD+ are complementary, such complementarities should be reflected in the zoning, within and outside the CAZ. The engagement to reduce deforestation in the various areas does not involve the same players, does not include the same commitments, and cannot be evaluated using the same indicators.

The DMP has not yet been finalized while the surfaces affected by the various zoning types are evolving. The DMP is an important basis to define the distribution formula of revenues from the sales of carbon credits, in order to identify incentives and repressive measures to ensure the effectiveness and efficiency of conservation, usage, and sustainable exploitation of forest resources in the Natural Resources Reserve and its periphery.

Table 4: Areas in ha considered in the various administrative documents

ZONING	Surface (GIS DMP 2010)	Surface (Management delegation agreement 2012)	Surface (Project presentation report, REDD, 2013)
CORE AREA	228,522	266,500	234,165 (Category A)
ZOC	9,516		178,428
BUFFER ZONE	2,395	104,500	
ZUC	33,138		
ZUD	94,060		112,318 (Category B)
Total	367,631	371,000	524,911 p.18 / 370,032 p.23
Forest management area contiguous to the PA			234,552 (Category B)
Non-forest area located within a 2km-perimeter of the PA			45,942
Total			805,405

- Establishment of land tenure offices in the communes relevant for the CAZ

It is clear that revenues from the sales of carbon credits cannot fund tenure reform implementation in all communes affected by the project. Therefore, it is essential to secure investments aiming at developing more ecologically productive agricultural systems. The synergy between the various programs established by donors should be promoted to ensure the sustainability of REDD+ projects.

➤ Recognition of actual rights⁴ of local populations in the ZUC, ZOC, and ZUD

In the spirit of the modified Environmental Charter of 1990, the objective of “addressing tenure problems” forms an integral part of environmental policies in Madagascar (Art. 6 of Law #90-033). Usage rights are recognized actual rights for populations neighboring forests in order to secure their traditional activities of harvesting secondary forest products and to meet household needs (Art. 33 of Decree #2005-849 of December 13, 2005).

In case of an existing agricultural or livestock rearing activity, usage rights can be maintained “except in closed areas or special protection perimeters”. (Art. 34 of Decree #2005-849).

In addition, where management transfer agreements apply, Decree #98.601 considers the recognition of usage rights, which could potentially lead to tenure registration, in the delineated perimeter where management of natural resources was delegated, both on State domain and on a territorial collectivity private estate.

Actual rights that could potentially be granted to previously identified individuals or legal entities represent guarantees to sustain the planned investments aiming at enhancing or increasing agricultural production and establishing woody species plantations. In order to establish grant agreements or PES pertaining to agricultural investments (plantations or agricultural developments), the tenure element, though complex, appears unavoidable.

IV. The framework of funded activities in the context of the objectives of REDD+

After the identification of potential activities to be funded in the context of the sales of carbon credits in the CAZ NPA, some elements for the legal implementation framework will be assessed. It appears important both for capacity building and systematic impacts monitoring to rapidly clarify the rights and obligations of all players. **Pending a national legal and regulatory framework, contractual instruments based on existing arrangements are essentially proposed to define the framework for incentives.**

1. Types of benefits from REDD+ in the CAZ NPA

REDD+ should provide some financial and non-financial benefits, particularly to the local populations affected by the implementation of conservation efforts related to the security of carbon stocks and the reduction of emissions (ONU-REDD, 2012 (1)):

- Financial benefits
 - Carbon-related payments
 - Employment and investments in local infrastructure
 - Promotion of scientific and technological innovations, particularly those that can be applied by forest owners and local communities to enhance the sustainable management of forests (NLBI 2008)

⁴ Actual rights are understood here as the dismemberment of ownership. Such rights are defined by legal and regulatory provisions.

- Support to education, training, and extension programs in association with -local communities, forest workers, and forest owners to develop resources management approaches aiming at reducing the pressure on forests, particularly on fragile ecosystems (NLBI 2008)
- Support to the private sector, to civil society organizations and to forest owners to develop, promote, and implement in a transparent manner some voluntary instruments such as forest certification systems or any other relevant mechanisms aiming at developing and promoting forest products from forests under sustainable management, based on national legislation while improving market transparency (NLBI 2008)
- Non-financial benefits
 - Better access to forests, lands, and non-timber forest products
 - Improved quality of the local environment

Compensation and mitigation measures to address the impacts of REDD must be consistent with regulatory arrangements on the relevant territory. In the case of CAZ, the prohibited, authorized, and regulated activities should be recalled. The management delegation agreement of May 02, 2012 for the CAZ protected area concluded by the Ministry of the Environment and Forests and Conservation International defines the prohibited and authorized activities on the site⁵.

- **Prohibited activities in the core area and in the buffer zone**
 - Quarry or mines exploration and exploitation (in accordance with Decree #2005-848 of December 13, 2005). It should be noted that the revision bill for the COAP authorizes by regulation, after obtaining the opinion of the protected area manager, of an ad hoc expert panel and/or of the advisory body, any mining and oil prospection, including gold mining, anterior to the final creation of a protected area, except in its core. In addition, Order #52005/2010 of December 20, 2010 prohibits in its Article 7 the delivery of new mining and oil permits for exploration and exploitation of quarries, mines, or oil concessions, as well as any gold mining within sites of biological or ecological interest
 - Clearing and slash-and-burn cultivation (in accordance with Ordinance #60-127 of October 3, 1960)
 - Collection of protected species (in accordance with Law #2005-018 of October 17, 2005)
 - Human settlements except in the ZOC
 - Charcoal production (It should be noted that Order 53005/2010 prohibits this activity which is not the case of the management delegation agreement to CI)
 - Delivery of land titles and certificates
- **Authorized activities in the core area and in the buffer zone**
 - Ecotourism
 - Scientific research
 - Ecological monitoring, restoration, control, and surveillance
 - Traffic on existing trails
 - Cultural activities
- **Regulated activities in the buffer zone (ZOC/ZUC/ZUD) authorized by the forest administration, subject to the favorable opinion of the delegate manager**

⁵ It should be noted that the agreement mentions “protected area” while Inter-ministerial Order #52005/2010 of December 20, 2010 mentions a “site of biological and ecological interest”. The PA will not be established before the publication of the final creation decree.

- Grazing and penning of cattle
- Exploitation of wood and non timber forest products
- Cutting wood and secondary forest products for the needs of neighboring communities
- Hunting and capture of wild animals
- Filming and photography
- Possibility of delivering land titles and certificates by the relevant Department after evaluation by an Inter-ministerial committee and authorization + technical specifications established by the forest administration (Order #52005/2010)

2. Identification of general governance measures to reach the objectives of REDD+

According to the United Nations, the success of REDD policies will depend on several factors related to both technical and governance aspects (UNREDD, 2012 (2); UNREDD, 2011), subject to verification indicators and measures based on the areas of activities and results considered.

The table below will help assign the activities supported by the revenues from the sales of carbon credits to the State (MEF/DREF), the delegate manager (CI), the trust agency, and/or the funding administration agency.

Table 5: Attribution of REDD+ objectives to the identified players, applying the proposed distribution formula

Objective	Responsible entities	Planned approaches	Identified player based on the proposed distribution formula
Reach the ability to produce forest carbon estimates that can be measured, reported, and verified	Project developer for the sales of carbon credits with the collaboration of the State to provide the country with the needed systems and capacities for measurement – reporting – verification (MRV) and monitoring	Establish teams in charge of the MRV with enhanced capacities Technical support to operationalize the MRV systems for REDD	CI (3%)
Improve national governance for REDD+: enhance transparency, integration, and efficiency in the national REDD+ governance	UN-REDD Program Project developer National administration Monitoring institution	Assess governance and develop governance indicators for the country Integrate the results from governance assessments in the national REDD+ strategy	MEF & DREF (included in the 20%). It should be noted that given the important role of the VOIs for REDD, their monitoring and evaluation as planned in the legislation should be part of this component.
Reduce the risks of corruption at national, regional, and local levels	Central and local administrations Anti-corruption and monitoring institutions	Strengthen the legal and institutional structures regulating natural resources exploitation to make them more stringent Strengthen the forest sector against corruption and poor management Improve the operational agreement between forest services and entities in charge of revenue collection to eliminate potential hotbeds of corruption. Reinforce the presence of control institutions such as anti corruption entities and surveillance institutions at the local level	MEF & DREF (included in the 20%), particularly with regards to their role as delegator and their sovereignty: supervision of the PA management Control and issuance of statements of offences explicit enough to be handled in an informed way by the prosecutors Coverage of prosecution fees (resources, premises, food, etc. for custody, storage of seized goods) with the delegate manager.
Free, prior, and informed consent and full and effective participation of populations directly affected by the national REDD+ measures and policies	Project developer for the sales of carbon credits National and local administrations Surveillance institutions Local elected officials.	Identify and involve stakeholders representing the local populations and the civil society in decision-making, development and implementation of REDD+ strategies at national and local levels - Evaluate the number of local populations and forest-dependent communities affected by the Program and the	CIOE & CSS (included in the 20% of the CAZ NPA delegate manager)

		<p>nature of impacts</p> <p>Assess stakeholders' perception at local level</p> <p>Establish a consultation process on the national and local readiness activities for REDD+</p> <p>Establish arrangements for remedy and mediation mechanisms.</p>	
Traceability and accountability for payments made and received	<p>UN-REDD Program</p> <p>Project developer</p> <p>Surveillance institution</p>	<p>Establish and operationalize national systems for fund management and equitable distribution of benefits</p> <p>Support local collectivities to improve their ability to hold elected officials accountable</p> <p>Build the capacities of local authorities to address the concerns and interests of local collectivities</p> <p>Develop functional skills (project planning, budgeting, and management; capacity monitoring and evaluation; risk management) for local administrations</p>	Trust Agency (3%)
Access (right) to information for stakeholders as a foundation for transparency and accountability	<p>State</p> <p>PA delegate manager</p>	Build institution capacities to manage and provide information to local populations and civil society	<p>CI (included in the 20%), notably by hiring 6 coordinators for sectors, to be permanently based in the field</p>

V. Suggested measures to be potentially funded based on the redistribution to the local populations of revenues from the sales of carbon credits

To ensure the consistency and the efficiency of REDD+, the following must be clearly identified:

- The objectives and therefore the activities to be potentially funded by the revenues from the sales of carbon credits
- The responsibilities of the relevant beneficiaries in terms of commitments to reduce deforestation and of respective obligations formalized in existing laws, regulations, and agreements.
- Benefits in return of their investment efforts, which are necessary but not profitable in the short run, to sustainably manage natural resources
- The requirement of transparency from beneficiaries and public availability of the reports on the use of funds established by trust agencies.

To implement the technical specifications, some activities can be funded for some beneficiaries based on a work program adopted by the administration agency upon a proposal from CIROE. Regardless of the planned management arrangements (in-house, from service providers or directly by the recipients), “payments for environmental services”-type agreements should be established with the recipients *in fine* of these grants: the links between funded activities and conservation must be explicit and measurable. Carbon revenues cannot support all activities needed to limit deforestation. The selection of activities should be initially based on defined priority criteria and on performance criteria in the future.

Several activities that could be potentially funded in the CAZ are recommended in the current analysis.

Table 6: Potential activities to be funded and conditionality

Objective	Beneficiaries <i>in fine</i>	Status of service providers	Funded activities	Contractual obligations (Conditionality)	% of the distribution formula
Sustainably manage the ZUD and the ZUC	VOI and forest cooperatives members, with the priority given if possible to the ZOC residents	Association or cooperative	Enrichment of production forests (ZUC & ZUD) Adoption of sustainable techniques for the exploitation and use of wood and non-timber forest resources Organization of supply chains Participation in surveillance patrols " <i>polis'analala</i> "	Respect the zoning and the quotas and enforce compliance by loggers and users Promote the general use of sustainable techniques for the exploitation and usage of resources Participate in the impacts assessment for the proposed approach	40 % local populations
Sustainably manage the ZOC while respecting the loading capacity of the ecosystem and intensifying agricultural production	ZOC residents	Farmers or farmers' groups forming a rural organization	Adoption of ecologically intensive agricultural paths as an alternative to <i>Tavy</i> Delineation of agricultural plots Participation in surveillance patrols " <i>polis'analala</i> "	Stop clearing the primary forest Secure land rights recognized by the <i>fokonolona</i> , the commune and the DREF on all plots included in the agricultural exploitation Sell the farm to a single operator in the event of termination of the agricultural activity Participate in the impacts assessment for the proposed approach	40 % local populations
Diversification of sources of revenues for the most disadvantaged residents	Residents of the ZOC of the protection area of the NPA	Association or cooperative	Adoption of new production techniques Organization of supply chains	Engage in a significant and sustainable way in the proposed production techniques to gain substantial revenues Cease within a defined timeframe any activity that is a source of deforestation Participate in the impacts assessment for the proposed approach	40 % local populations
Increase of agricultural or forest surfaces at the	Landless or particularly	Commune and Association	Development of lowlands, marshes, or hills	Stop clearing primary forest and/or cutting trees within a defined timeframe	10% communes

periphery of the NPA	disadvantaged farmers		Registration of actual rights corresponding to the exploitation of the fund and the renewable natural resources with the relevant authority Support to the management of the exploitation	Participate in the impacts assessment for the proposed approach	
Contribute to the improvement of food security and livelihoods of local populations	Populations of communes involved in the management of the CAZ NPA	Commune	Facilitation, training, and various advice Execution of collective works	Find additional funding to implement such activities	10% Communes
Contribute to investment in sustainable development for future generations	School-age children	Commune	Building of schools, hiring teachers, facilitating school services	For parents, enroll their children to school and respect the school calendar	10% communes
Strengthen the decentralized control of forest activities	Individuals respecting the legal, regulatory, and contractual provisions of the renewable natural resources management	Commune	Hiring a communal agent in charge of decentralized control	Participate in control activities carried out by the VOI and the forest administration. Ensure monitoring of the evolution of illicit forest activities on the communal territory.	10% communes

The proposed options to implement the distribution of funds from the sales of carbon credits in the CAZ are based on the following principles:

- Develop and strengthen the capacities of those involved in the co-management of the CAZ NPA to institutionalize a representative and durable governance structure, able to use the revenues from the sales of carbon credits in addition to other sources of funding, in order to ensure the protection of forests in the Natural Resources Reserve;
- Develop a culture of evaluation by systematically establishing an obligation of accountability for all beneficiaries in the context of results-based management;
- Develop a culture of transparency for the use of funds and make available to the public the evaluation reports developed by the entities responsible (forest administration, trust and administration agencies).

However, the decision process related to the redistribution of revenues from the sales of carbon credits must be considered in 3 successive phases:

- The first phase comes prior to the development of new ERPAs,
- The second phase focuses on the use of funds from the sales,
- The third phase focuses on control, verification, and approval processes related to the arrangements for the use of revenues from the sales of carbon credits

The sovereign State of Madagascar can, as in the case of the CAZ NPA, delegate to a third party (CI in this case) the search for potential buyers and the development and monitoring of contracts. However, all forest right-holders and those negatively or positively impacted by the REDD+ activities shall be able to be informed of the consequences of the ERPA.

In the case of the CAZ, the establishment of the PA was based on a participatory process that helped communicate the issues on primary forests conservation and the willingness of the State (considered to be the owner of the lands) to conserve them for a very long time. However, the DMP of the CAZ, an essential component of the package needed to finalize the creation of the PA, should be finalized and validated before considering other ERPAs. Under these conditions, given the alignment of the objectives of REDD+ and the creation of a protected area and their common obligation of public information, the final creation decree of the CAZ PA can be considered to be an expression of the prior and informed consent of all forest right-holders and those negatively and positively impacted by the REDD+ activities.

The option in this study is that based on the ERPA, the MEF is the entity validating the negotiated distribution formula used here, in writing to the World Bank as trustee of the BioCarbon Fund. However, beyond the current pilot project and given the proposed elements in the REDD+ national strategy, it is probable that the distribution formula will be validated by the CIME (MEF, 2013).

VI. Fund managers

The integrity of trust systems pertaining to funds delivery and disbursement (ONU-REDD, 2010) is of particular interest. Initially, it was intended for the UCPE to distribute the US\$1,500,000 from the sales of carbon credits in the CAZ based on the provisions of the ERPA and a convention and work plan.

However, following the discussions during the R-PP development and the willingness of the World Bank to participate in the national reflections, through this study, several types of managers were assessed.

The steering committee will decide if the proposals on the identification of fund managers will be immediately applied to distribute the amount of US\$1,500,000 from the ERPA or if the UCPE will sign the conventions with stakeholders. If the UCPE remains the trust agency, funds disbursed by the BioCarbon Fund will be redistributed after validation of the approved distribution model. The UCPE will also be in charge of control and verification of the use of allocated funds.

The Madagascar Foundation for Protected Areas and Biodiversity (FAPBM) could eventually play this role, relying on one hand on the Forest Fund for the 20% allocated to the MEF and the DREFs, and on the other hand on an a specialized administration agency to build the capacity of local structures to manage renewable natural resources, such as the Tany Meva Foundation. The detailed elements of the assessment are presented in the legal Annex 7.

VII. Decision-making process related to the redistribution arrangements of revenues from the sales of carbon credits

1. PLACAZ

Provincial Order #054/MIRA/DS/PA/TOA/SCCE created a management platform for the Ankeniheny-Zahamena Corridor on March 25, 2004, to be chaired by the President of the special delegation of the autonomous Province of Toamasina and managed by a general coordinator, the Director of the department in charge of civil security and environmental conservation.

In addition to both officials, the platform is composed of:

- 6 entities working at the provincial level (decentralized governmental services, SAGE, ANGAP, liaison office of the regional development committee). The majority of these entities are no longer operational.
- 6 regional coordinators, specifically identified, each receiving the technical support of three of four agents from the forest administration, the prefecture or the sub-prefecture, a representative of the civil society or a territorial collectivity.

The missions and the responsibilities of the PLACAZ are to (art. 3):

- Work within the framework of the Poverty Reduction Strategy Paper (PRSP) and the Provincial Development Plan;

- Design and supervise the coordination, the monitoring of the management plan implementation, as well as the development and conservation policy in the corridor areas;
- Discuss and authorize all interventions through its support to/advice on decision-making on the management of the corridor;
- Contribute to the capacity building of consultation structures during the different phases of development of the management plan;
- Stay informed of potential threats or events that may impact the management of the corridor at all levels;
- Evaluate the activities in the corridor;
- Ensure the dissemination and circulation of information on the corridor to its members, partners, and other institutions.

PLACAZ is a coordination structure started in 2004 by the Toamasina Province and that is no longer relevant today due to the evolving institutional background (disappearance followed by restoration of Provinces, designation of a delegate manager in the CAZ NPA, dormancy of the structure). Based on the distribution schemes discussed during the public consultation of May 17, 2013, two structures are suggested to inform the decisions of the Strategic Steering Committee and the Sector-wide Coordination Committee. PLACAZ should be evaluated and updated to support the Interregional Steering and Evaluation Committee provided in the legal, regulatory, and contractual provisions on the NPA and the sector-wide coordination committees.

Various points specifying the composition and functions of the committees are presented below.

2. The Inter-regional Steering and Evaluation Committee (CIROE)

The role of this committee is to define the distribution arrangements of carbon revenues based on the distribution formula adopted for the entire CAZ. The committee must validate the technical specifications of the ERPA with the mandated fund manager (UCPE or FAPBM). We recommend associating this strategic steering committee to the Inter-regional Steering and Evaluation Committee of the CAZ NPA defined by the regulations. The committee has not yet been established and should capitalize on the existing PLACAZ, previously designated by the provincial authorities to play similar roles.

The members and the role of the Interregional Steering and Evaluation Committee of the CAZ NPA were defined in various ways by the different regulations:

According to Order #52005/2010, the steering and evaluation committee for protected areas is in charge of monitoring the implementation of efforts. Chaired by the DREF, it includes:

- The relevant regions and communes
- The decentralized services in charge of environment and forests
- The decentralized services in charge of livestock, agriculture, fisheries, energy, land planning and decentralization, transportation, tourism, and handicraft
- The sea and river transport agency

- The relevant Gendarmerie brigades and the marine units in the areas surrounding the relevant sites of biological and ecological interest.

According to the management delegation contract for the CAZ signed by the forest administration and CI in May 2012, the interregional steering and evaluation committee is in charge of monitoring the implementation of efforts in the PA in progress. It is chaired by the Director in charge of SAPM and includes:

- The relevant regions and communes
 - The decentralized services in charge of environment and forests
 - The decentralized services in charge of livestock, agriculture, fisheries, energy, land planning and decentralization, transportation, tourism, and handicraft
 - The sea and river transport agency
 - The relevant Gendarmerie brigades and the marine units in the areas surrounding the relevant sites of biological and ecological interest.
 - The delegate manager
 - The representatives of local communities neighboring the PA and from the protection zone
 - Any individual or entity selected based on special capacities
- ⇒ It should be noted that in Order 52005/2010, the Committee is chaired by the DREF while the management delegation agreement states that it is chaired by the SAPM.
- ⇒ It should also be noted that under the management delegation agreement, the delegate manager and representatives of local communities neighboring the PA and from the protection zone were added in the list proposed by Order 52005/2010.

The role and composition of the Interregional Steering and Evaluation Committee are specified in the proposal included in the report presenting the REDD Project for the CAZ (Présentation du projet REDD, 2013). According to the report, the committee meets twice a year, is in charge of implementing efforts related to the management of the future PA, acts in an advisory capacity on strategy and general policy issues, and approves work plans and reports. Chaired by the Director in charge of the PA system, the committee includes:

- 2 chiefs or region
- 2 mayors
- 2 DREFs
- 2 representative of decentralized services
- 1 delegate manager
- 2 representatives of federations
- 2 representatives of the civil society (including 1 from PLACAZ)
- 2 technical and financial partners

Members are designated by official order of the MEF.

- ⇒ There are four representatives of the territorial collectivities, ensuring their effective representation;

- ⇒ The DREFs of the two regions affected by the CAZ are also represented while the Director of the SAPM represents the central services of the forest administration.

Suggestions for the composition of the strategic steering committee

Based on the composition of the CIROE proposed in the REDD project document (Présentation du projet REDD, 2013), the following points are recommended:

- Given their importance to ensure the sustainability of the protected area, the number of representatives of decentralized services should be increased to three (see below): one director from the land tenure services and domains, one representative from the Ministry of Mining, and one representative from the Ministry of Agriculture.
- It seems preferable not to restrict the representation of local communities to the representatives of federations. We recommend adding two representatives of local communities to the two representatives of federations to take into account all organizational layers.
- It also seems important to allow two representatives of identified vulnerable groups, as representatives of the civil society, to participate in the discussions of the Interregional Steering and Evaluation Committee of the CAZ.

It should be noted that the designation of the representatives of communes, federations, local communities and vulnerable groups should be subject to a coordinated proposal between the relevant institutions. It is also preferable that the proposed representatives represent all relevant geographic areas and interests.

- It seems crucial to comply with the management delegation agreement and include in the CISE the Gendarmerie brigades, which have the territorial jurisdiction for control, sanctioning, and handover to the relevant authorities.

3. The Sector-wide Coordination Committee (CCS)

Both the REDD+ project document developed by CI and the DMP of the CAZ NPA (to be finalized) mention the future existence of sector-wide coordination offices led by sector coordinators employed by the delegate manager of the future PA. It is also mentioned that the sector coordinator collects and analyzes the reports from the local management units, supervises their management, and submits reports to the representatives of the governmental decentralized services.

As the Federations do not gather all entities interested in the management of the 6 sectors of the CAZ, we propose to establish a Sector-wide Coordination Committee (CCS) at this level.

➤ Propositions on the composition of the CCS

The sector-wide coordination committee should gather the Communes, the local communities, the farmers' organizations, and the agricultural and forest cooperatives participating in the renewable

natural resources management in the relevant sector. As legally appointed representatives of the local communities, these incorporated institutions have potentially the rights of access to grants.

It should be noted that to date, the local management units defined in the REDD/CAZ Project description document on page 16 (local players including local communities and their partners) remain unincorporated.

The committee is facilitated by a sector coordinator employed by the delegate manager of the CAZ NPA as an agent of the protected area.

➤ **Roles of the CCS**

At the sector level:

- Support the institutionalization of the representative management structures
- Ensure the coordination of appointed local management structures and the integration of structures being institutionalized
- Receive complaints from neighboring communities and members of management structures
- Ensure the monitoring and evaluation of management activities of renewable natural resources and their impacts

We suggest that the sector coordinator becomes the authorizing officer for expenditures proposed by the potential grant beneficiaries, supported by the funding administration and evaluation agency, based on the technical specifications validated by the strategic steering committee.

4. Monitoring and evaluation arrangements of incentives

To ensure transparency and savings, the existing control, monitoring, evaluation, and verification systems should be capitalized and strengthened. Implementing new types of arrangements that have the same objectives should be rationally documented.

➤ **The funding administration and evaluation agency**

In compliance with the defined specifications, and based on the expenses authorized by the sector coordinators, this agency is in charge of allocating funds to the potential beneficiaries, to verify their accounting, and to acknowledge receipt of works.

The agency submits a financial and administrative monitoring report to the Strategic Steering Committee.

➤ **The regional directorates of environment and forests**

They are in charge of monitoring and evaluation of the management transfer agreements.

They participate in the control of the legality of forest products and activities in the future protected area.

They observe infringements, receive transaction demands, and participate in the prosecution of alleged offenders (establishment of groups of plaintiffs).

➤ **The delegate manager (CI)**

The delegate manager is in charge of ecological monitoring, potentially with the participation of local communities.

➤ **The delegate managers (CI and local communities)**

They participate in the control of activities respectively on their territory and in the future protected area and participate (financially and/or as plaintiffs) to the prosecution of alleged offenders.

➤ **Communes**

They are in charge of accounting, to be controlled and legally approved by the district chief.

They can employ administrative police officers, but not legal police officers.

Each structure contributes at its level to the monitoring and evaluation of activities related to sustainable forest management. The alignment of provisions pertaining to grant payments in the development of contractual documents should help define and inform the information system to allow *in fine* the evaluation of impacts.

VIII. The disbursement procedure

The Steering committee defined in the present study can select between two distinct procedures to disburse the ERPA funds.

- **The first and simplest option would be to consider that CI, as delegate manager of the CAZ NPA is qualified to develop specifications, based on the negotiated distribution model, to be appended to the ERPA, in the name of all entities eligible to receive grants**

In this context, CI has two distinct liabilities: the management delegation contract of the CAZ NPA (2012-2014) defining the obligation to establish a governance structure for the CAZ, and the grant agreement established with the UCPE including the specifications with the adopted distribution formula and the arrangements for the funds to be spent before the end of 2014 (the end of the management delegation agreement). This option does not ensure in any way the convergence of efforts undertaken under two different sources of obligations.

However, in this case, CI is responsible for the use of funds (minus the 3% of management fees for the UCPE) according to the planned allocations and establishes systematic grant sub-agreements with all beneficiaries. Activities carried out under the present study can be used to inform the PA delegate manager.

- **However, if the donor and the Government of Madagascar wish to establish a sustainable management structure for carbon revenues at the level of the REDD+ pilot project in the CAZ NPA, another procedure is feasible. Implementing this option would be however**

slower given the current political uncertainties in the country ⁶. This option entails the development of 5 successive documents.

(i) MEF Order for the creation, organization, and operations of the CIROE

Even if a decree is developed to align the management delegation scheme of new protected areas, a specific order from the MEF could be considered to define the creation, organization, and operation rules for the CIROE. This order would state that (i) the PLACAZ, established by the provincial order #054/MIA/PA/TOA/SCCE of March 25, 2004 is dismissed and replaced by a management structure that is consistent with the legal and regulatory provisions on the governance of a NPA such as a “natural resources reserves”; (ii) the CIROE is chaired by the DSAP Director at MEF. The CIROE of the CAZ NPA could include:

The 11 members representing the institutions working on general interest:

- 2 chiefs of region (Alaotra Mangoro and Atsinanana)
- 2 DREF (Alaotra Mangoro and Atsinanana)
- 3 representatives of decentralized services (administration of domains, mining, and agriculture)
- 1 delegate manager
- 1 representative of the Gendarmerie brigades - which have the territorial jurisdiction, for control, sanctioning, and handover to the relevant authorities.
- 2 technical and financial partners (Selected among the donors and the support operators with the greatest involvement in the management of the CAZ NPA)

The members representing Ministries are designated by order of the Ministry in charge of the environment upon proposal of the relevant ministerial department, for a 3-year renewable term. These individuals will be selected based on their technical and territorial capacities. The members representing the delegate manager and the 2 technical and financial partners are also designated by order of the Ministry of the Environment. All three members are selected among 5 names suggested by the delegate manager.

- The 6 members representing institutions working for community interests:
 - 2 mayors (elected by the college of 24 communes affected by the CAZ NPA for each electoral mandate)
 - 2 representatives of VOI federations (selected at random during a public event organized on the anniversary of the temporary – or final- protection order of the CAZ NPA among the members of the federations involved in the coordination of the VOIs within or in the periphery of the CAZ)
 - 2 representatives of the VOI (selected at random during a public event organized on the anniversary of the temporary – or final- protection order of the CAZ NPA among the presidents of VOIs approved by the MEF and established within or in the periphery of the CAZ)

⁶ In the absence of legislations on REDD, a proposal on a national order establishing the systematic application of the identified distribution formula on all sales of carbon credits over the national territory cannot be considered.

- 2 representatives of vulnerable groups (selected at random during a public event organized on the anniversary of the temporary – or final- protection order of the CAZ NPA among the grant beneficiaries)

During the random selection of representatives, two alternates will be identified in case of withdrawal of the two primary representatives.

The director of the CAZ NPA serves as secretariat of the CIROE. Decisions are reached by majority of attendees with a quorum of 9. However, for each decision pertaining to the distribution of revenues from the sales of carbon credits, the CIROE will use the distribution formula adopted in 2013.

The CIROE:

- Validates the annual work plan presented by the director of the CAZ
- Validates the technical and financial report covering the previous year
- Identifies all institutions that can potentially receive grants to compensate the loss of revenues related to the establishment of the PA (VOIs approved by the decentralized services in charge of forests; VOI federations approved by the delegate manager; farmers' organizations or agricultural cooperatives approved by the decentralized services in charge of agriculture and forest cooperatives approved by the decentralized services in charge of forests).

(ii) Designation orders of the CIROE members by the MEF

Such orders shall be regularly published based on terms of the various mandates of CIROE members. The delegate manager shall be responsible of communicating this cyclical information to the MEF.

(iii) Development by the MEF of the specifications of an ERPA between the Republic of Madagascar (Ministry of Finance and Budget) and the IBRD as trustee of the BioCarbon Fund

The current study presents numerous elements to help establish the specifications for the arrangements on redistribution of revenues from the sales of carbon credits. Finalizing these specifications requires some political and strategic choices by the CIROE. The delegate manager or a subcontractor will finalize the drafting of these specifications.

(iv) Validation of the specifications for the disbursement of funds by CIROE

The final version of the specifications for the sales of carbon credits in the CAZ shall be validated by the CIROE. The same committee may decide to amend the specifications based on the evolution of the behaviors of the neighboring populations in the CAZ NPA as well as the trends in the sales of carbon credits.

(v) Statements by the Republic of Madagascar on the authorization and legality of the ERPA

Two statements are needed for effective disbursement of funds:

- One statement by the MEF confirming the authorization and legality of the validated specifications on the redistribution of revenues from the sales of carbon credits in the CAZ
- One statement by the Ministry in charge of Finances to confirm the authorization and legality of the carbon credits sales agreement (mentioned in the ERPA).

D. Bibliography

- Conservation International, 2013, VCS Project description version 3 : Reduced Emission from emission from deforestation in the Ankeniheny-Zahamena Coridor, Madagascar, Antananarivo
 - Conservation International, 2013, VCS Monitoring report 2008-2011 version 3 : Reduced Emission from emission from deforestation in the Ankeniheny-Zahamena Coridor, Madagascar, Antananarivo
 - Conservation International, 2012, Plan de gestion environnementale et de sauvegarde sociale de la Reserve de ressources naturelles Ankeniheny Zahamena, MINENVEF, Antananarivo
 - Desbureaux S., 2012, L'insertion des instruments incitatifs dans les politiques de preservation des ressources naturelles; Etude de cas : Enjeux de la mobilization d'instruments PSE pour la gestion de la NAP CAZ, Mémoire de Master 2 Recherche, Université Paris X Nanterre La défense, Mention Sciences de gestion, Ecole des Mines ParisTech, ESCP Europe, ENS Cachan, Paris, 146 p.
 - Harper G.J., Steininger M.K., Tucker C.J., Juhn D., Hawkins F., 2007, Fifty years of deforestation and forest fragmentation in Madagascar, Environmental Conservation n° 34
 - Ministère de l'Environnement et des forêts, 2013, Fond de partenariat pour le carbone forestier (FCPF) – Proposition des mesures pour l'état de préparation (R-PP), Antananarivo
 - ONU-REDD, 2012 (1), Principes et critères sociaux et environnementaux du programme ONU-REDD, 8eme réunion du conseil d'orientation, 25/26 mars 2012, Paraguay
 - ONU-REDD, 2012 (2), Vers des systèmes nationaux de REDD+ inclusifs, transparents et redevables : le rôle de la liberté de l'information - Résumé, novembre 2012, Genève (www.un-redd.org)
 - ONU-REDD, 2011, Stratégie du Programme ONU-REDD 2011-2015, Genève, http://www.iisd.org/pdf/2011/redd_programme_strategy_2011_2015_fr.pdf
 - ONU-REDD+, 2012 (3), Forest Carbon Partenership : Directives concernant l'engagement des parties prenantes à la préparation de REDD+, avec un accent sur la participation des peuples autochtones et autres collectivités tributaires des forêts, Genève (20 avril 2012)
 - Primature, Ministère chargé du budget et du développement des provinces autonomes, 2000, Le guide du maire, PNUD, Antananarivo
 - Tany Meva, 2010, Extrait Plan stratégique 3, 2 P.
 - Wemaëre, M. and G. Rajaonson, Note sur la nature juridique du carbone et les droits de propriété sur les crédits carbone-Proposition pour la rédaction d'un Protocole d'Accord. 2006, MEEF.
-