Chapter 5
Financing Protected Areas in Madagascar: New Methods

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Over the last few years, the problems linked to financing protected areas in developing countries have been the subject of some attention. They illustrate the increasing commodification of nature, the role of intermediary being played by international NGOs, and the emergence of large-scale approaches to conservation; all these having been mentioned in the introduction of this publication.

The inadequacy of traditional financing system for protected areas has been noted during both the 5th World Parks Congress (in Durban in September 2003) and the 7th Conference of the Parties to the Convention on Biological Diversity (in Kuala Lumpur in February 2004). This led to many initiatives, irrespective of the continent or the ecosystem concerned (Emerton et al. 2006).

Indeed, in developing countries, protected areas receive on average 30% of the funding needed to carry out the basic management required for conservation initiatives (Spergel 2001). During the last six years, the governments of many countries, from Africa in particular, have reduced their budgets for protected areas by more than 50%, due to financial and political crises. Several protected areas have become mere 'paper parks' because fundings were insufficient to cover the salaries or vehicles costs, for example.

In addition to public budgets receiving funds through usage fees, taxes and other dues, and to subsidies and donations from international NGOs and aid agencies, other sources of funding such as payments for ecosystem services are on the rise (Emerton et al. 2006; Gutman 2003; Wunder 2005; Pagiola et al. 2005). This new trend results from the fact that industrialised countries find it difficult to increase traditional international aid in a period marked by shrinking public budgets and the criticism of aid efficiency in general. It also results from the development of public-private partnerships against a background of economic globalisation and an increase in direct investment abroad. Finally, it results from the increasing commodification of biodiversity, along with a return to more preservationist policies.

Our objective in this chapter is to illustrate this new trend, and to evaluate its characteristics using the case of Madagascar. More specifically we intend to show how current policy for the expansion of protected areas (Carrière et al., this publication) goes hand in hand with the development of new 'sustainable'

financial instruments. Indeed, protected areas are often used as examples of the importance of market mechanisms (trust funds, tourism concessions, etc.). Conversely, the policy of protected areas expansion find in these financial mechanisms an economic legitimacy which, in principle at least, is supposed to justify their existence (Carret and Loyer 2004).

Of all the financing tools available to a state, it seems important to distinguish, on the one hand, those qualified as endogenous, i.e. self-maintained within the country concerned (public financing, taxes and entrance fees among others) and, on the other hand, exogenous, i.e. international sources of funding (trust funds and carbon sequestration projects). Thus, in the first section we highlight the importance of the need for funding, and the problems linked to endogenous financing system. This analysis will reveal why environmental policy actors are aware of the requirement to find alternative sources of funding. Regarding these, we examine in the second section the creation of the Madagascar Foundation for Protected Areas and Biodiversity that aims to manage capital invested in the international stock markets. And finally, in the third section, we examine carbon sequestration projects involving international actors, governments and multinationals.

The Limits of Endogenous Financing Mechanisms

Although the financial sustainability of Malagasy environmental policy has been part of the Environmental Charter since 1990, it was in 2003[1] that its implementation in the more targeted domain of conservation became a priority. Indeed, in September 2003 during the 5th World Parks Congress held in Durban, the President of the Republic of Madagascar, Mr Marc Ravalomanana, pledged to increase, within five years, the surface area of protected areas to 10% of the Malagasy territory. This IUCN standard in fact entails a tripling of this extent from 1.7 million ha to 6 million ha[2].

To date, most Malagasy protected areas have been managed by the National Association for the Management of Protected Areas in Madagascar, now called

1 Underlying the environmental policy of Madagascar is a 15 year, three-phase Environmental Action Plan (EAP). Each phase is called an Environmental Programme: EP 1 (1991–1996), EP 2 (1997–2002) and EP 3 (2004–2008). The EAP is based on the concept of the National Environmental Action Plans (NEAP) developed by the World Bank at the beginning of the 1990s, and on the Environmental Charter (Andriamahefazafy and Méral 2004; Chaboud et al. 2007; Froger and Méral 2009).

2 In order to accomplish this work, the 'Durban Vision' group which encompasses the main actors of the environmental policy, conservation NGOs (CI, WCS and WWF), the Department of Water Affairs and Forestry, as well as the main donors, i.e. American, Japanese and French co-operation, intends to complete two tasks: defining new protected areas and classifying them according to IUCN standards (for more details cf. Andriamahefazafy et al. 2007, and, in this publication, Rodary and Milian on IUCN categories, as well as Carrière et al. for a map on protected areas in Madagascar).

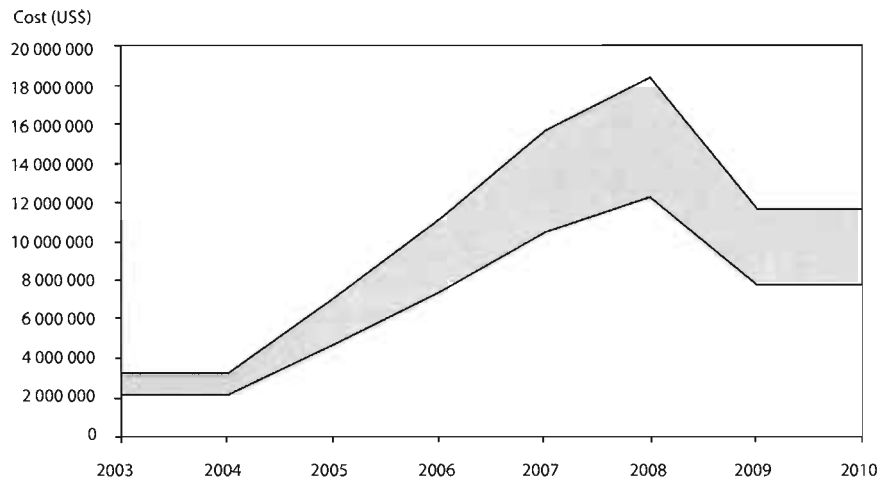

Figure 5.1 Estimated costs for the Malagasy system of protected areas

Madagascar National Parks (MNP). However, those to be created as part of the 'Durban Vision' will be managed from outside the national network, in what is today called Madagascar's System of Protected Areas (SAPM – système d'aires protégées malgache). In fact, this system includes all types of management, whether private, community-based or other. This means that, to achieve the Durban objectives, the modes of governance will have to go through a major evolution; one which, however, cannot be clearly defined at this stage.

This expansion policy makes it even more pertinent for conservation actors to consider methods of funding the SAPM. Indeed, the increasing number of protected areas and their total surface area in particular, entails very high operating costs, as indicated in Figure 5.1 above, which shows an estimate of the total annual financial cost (capital and recurring costs) linked to the increase of protected areas in Madagascar. The creation of protected areas involves costs related to the initial investments. Subsequently, the recurring costs (e.g. salaries, fuel, etc.) must also be taken into account, such that the annual total amount for financing the SAPM was estimated at $15 million in 2007, between $11 million and $18 million in 2008, and between $8 million and $12 million for subsequent years.

Protected Areas cannot be Financed on a State Budget

As a general rule, receiving funding from a government can be more advantageous than from international aid agencies whose programmes do not normally last more than five years, which is of course incompatible with the long term nature of biodiversity conservation. The endogenous dimension of the funding is then understood to be a source of sustainability.

In Madagascar, the situation is unfortunately highly unfavourable towards this type of funding, considering the low availability of public resources. Indeed, since 1990, when the National Environmental Action Plan (NEAP) was established, contributions to finance protected areas in Madagascar came mainly from donors. In this regard, Andriamahefazafy and Méral (2004) have shown that the expenditure of the Malagasy government on protected areas represented less than 2% of the total budget during the first phase of the Environmental Programme (EP 1), and between 15% and 20% during EP 2. It is fair to say that Madagascar benefits today from a network of protected areas largely thanks to donors, of which USAID contributed 68% of the expenditure between 1991 and 1996. As such, the state's capacity to participate in the financing of protected areas has always been low, mainly due to having a small public budget. The Malagasy state, through its own resources and taxes, has very little at its disposal to ensure the implementation of its own environmental policy and, *a fortiori*, the political choices which underlie protected areas.

Moreover, the state also finds it difficult to mobilise more specific fiscal resources, despite the existence of several fiscal projects (on gambling, fuel consumption as well as mineral and oil prospecting) intended to generate revenue for the environment. Even if other special funds paid for by targeted taxation exist in other sectors (e.g. taxes on fuel consumption to fund the Road Maintenance Fund, taxes on alcohol and tobacco to fund the Fund for the Promotion of Youth and Sports, among others), the problems and constraints remain. The tax collection rate is low in Madagascar (around 11%) and the reallocation of taxes in favour of the environment is quite random. It is also not uncommon that these tax revenues find their way into the general budget or the administration. Finally, it is difficult to ignore the lobbying of those economic actors likely to be taxed.

For these reasons, financing through state resources is inconceivable in Madagascar when it comes to the expansion of protected areas. Implicitly, the Durban Vision presupposes the development of new mechanisms.

The Relative Efficiency of Park Entrance Fees

Entrance fees constitute a common source of funding for protected areas. In some cases they generate enough income to cover much of the operating costs of a protected area or a park, particularly when there are many visitors and entrance fees are relatively high[3]. However, many parks set entrance fees way below the amount international visitors would be prepared to pay. The potential for increasing entrance fees is limited for parks that are not well known, or that do

3 For example, the Galapagos National Park in Ecuador asks foreign visitors to pay $100 per person as opposed to only $6 per person for Ecuadorians. The number of visitors keeps growing year on year and is currently approaching 80,000. National parks in Kenya, Tanzania, Uganda and Botswana ask foreign tourists to pay a daily fee of between $20 and $30 per person (Spergel 2001).

not contain animal species with a high tourist value. Furthermore, the income stemming from these entrance fees is not always reinvested in the maintenance of the protected areas where it was collected in the first place. This restricts long term self-financing.

It is for this reason that certain countries now allow a protected area to keep a significant share of its entrance fees. Spergel (2001) explains that, in Ecuador, the "special law for the Galapagos" stipulates that 90% of the $100 entrance fee received per visitor must be used for the protection and conservation of the natural environment. Only a few protected areas around the world are able to cover their operating costs through entrance fees alone. Such incomes (and other associated usage fees) must be perceived as a way of complementing, rather than replacing, budget allocations and subsidies received from governments and donors, respectively.

This uneven situation is also found in the case of Madagascar. Promoting ecotourism has always been at the forefront of the strategy for the economic valorisation of biodiversity in Madagascar during the NEAP. It is true that tourism has become one of the country's most dynamic economic sectors. However, the number of tourists remains relatively modest. The highest was in 2005, estimated to be 285,000 visitors. Considering that only around 60% of tourists visit protected areas, and that entrance fees for foreign visitors are between $1 and $5, the income generated by MNP can be estimated at between $171,000 and $855,000 per year. In the best case scenario, MNP can expect to benefit from half of this sum for its own financing, i.e. $427,000 (which represents between 10% and 15% of the operating costs of the institution)[4]. The other half goes towards financing projects intended to benefit the local population, which is not an inconsiderable amount locally, although it appears insignificant in view of the scale of the network.

This situation should deteriorate with the increase in the number of protected areas, which is mechanically going to reduce the impact of ecotourism. First, with the same number of tourists staying for the same amount of time, the number of visitors per park will decrease, along with the income from entrance fees. Second, an increase in the surface area of these protected areas means an increase in the number of *communes* and villages affected. Even with the same amount of visitor entrance fees, the income generated by local rental tourism will be reduced. Only an increase in the number of tourists could mitigate this problem.

4 This percentage is fairly high, for it is based on a record number of tourists in Madagascar paying an entrance fee of $5 the highest fee applied in 6 of the 38 MNP sites for a stay of four days or more. This percentage corresponds to the percentage estimated in the United States and Canada a few years ago, for which the share of entrance fees in the recurring costs of their parks was estimated at 17 to 18%. Today, this percentage approaches 34% in the United States, which reveals a strong rate-fixing policy in these countries (Eagles 2001).

From Entrance Fees to Tourism Concession: A Circuit that Excludes Local Populations

Over the next few years, the financing of protected areas through ecotourism in Madagascar should result from the implementation of a system of concessions involving private operators. 2006 saw the beginning of a consideration of the legal conditions for implementing concessions in certain protected areas, thereby giving form to the general tendency in favour of the concession market (Karsenty and Weber 2004).

Concessions concern mainly ecotourism activities in nature parks. Their principle consists in granting a private body the right to undertake economic activities (i.e. the right to exploit the tourist accommodation infrastructure, the shops, the restaurants, etc. as well as the right to set up income-generating visitor services or excursions), in exchange for fees paid directly to MNP, in accordance with an amount defined on a case by case basis. Several types of concession already exist, and differ according to the nature and duration of the contract (long lease, lease management, management contract, etc.). The financial logic underlying a concession is that while the management of the economic activity is delegated, MNP can take part in the general financing of the protected areas.

Concessions offer certain advantages for private operators and especially for MNP. Indeed, the national association not only sees the possibility of benefiting from taxes as a source of financing, but also of inheriting the infrastructure created by the private operator at the end of the contract.

In general, the establishment of concession contracts relies on several laws, including the Act n°60-004 of 1960 on State-Owned Property, and the Act n°97–017 of 1997 on the revision of the Forestry Legislation[5]. The Environmental Charter and the Code of Protected Areas also favour the implementation of concessions in protected areas in Madagascar[6]. However, the legal dimension also represents an obstacle, as enforcement decrees specifying the terms and conditions for implementing concessions are generally very long to be published. Furthermore, the multitude of laws has subjected the implementation of concessions to several interpretations, thereby undermining negotiations between contracting parties.

5 Act n°2005–019 of 17 November 2005 defines a concession as "the administrative procedure through which the administration in charge of the public domain grants a natural person or a public or private legal entity the use of a specific land and the immovables contained therein, in the conditions determined in the procedure and in the specifications, for a consideration, for a determined period".

6 Thus, Article 34 of the Code of Protected Areas stipulates that MNP is authorised "to enter into commercial agreements or otherwise with any natural person or legal entity and to exercise of its own accord or in partnership, within the framework of the development of the protected area of the national network or its components, any activities likely to generate additional income without going against the protection or conservation objectives".

It is important to note that implementing concessions in certain protected areas currently managed by MNP is part of a more general approach intended to implement concessions in the forests of Madagascar. This approach is clearly targeting protected areas that are not managed by MNP, within the framework of the SAPM, and will be the subject of a concession contract with the Department of Waters Affairs and Forestry, either by tender if the initiative comes from the state, or by mutual agreement if the request is made by a private operator.

While this concession contract policy seems to be in harmony with the establishment of the SAPM, it is not free from the risk of conflict with local populations and/or traditional authorities. Because of the lack of efficient forest management (e.g. through a permanent or regular presence on the ground) by the administration, due mainly to a lack of means, these populations and authorities were able to maintain some of their rights. The private operator will be considered as the sole manager of the area concerned and will only report to the granting authority, i.e. the state[7]. Even if USAID highlights the need to "take into consideration the social aspect and the integration of the local populations into the implementation of the concession policy" (USAID Madagascar 2006: 88) and recommends the implementation of the development plan, it is far from certain that mere 'good intentions' are sufficient.

Moreover, while private operators will be paying fees to MNP, the latter will not be redistributing the money to the *communes* or the local populations (currently receiving 50% of the entrance fees). The advantages for the *communes* and local populations will depend on the side-effects of an increase in the number of tourists visiting the concession sites. This argument is put forward by the promoters of concessions and remains, for the time being, hypothetical. According to Chaboud et al. (2004), Andrianambinina and Froger (2006) who studied the limitations of the aforementioned side-effects, the advantages would have been more direct if part of the fees were allocated to the budget of the *communes* concerned.

Generally, these sources of so-called endogenous financing (entrance fees and concessions) are relatively limited and can only concern a small portion of protected areas, where the potential for tourism is significant. Finally, one can note that these methods of economic valorisation through tourism are constrained by the fact that tourism is part of a global network in which the decision-making power lies in the hands of Western tour operators (Requier-Desjardins 2005). The fact that foreign tourists visit nature parks in Madagascar is the result of competition with other international destinations cashing in on their very own assets. The capacity of the Malagasy state to release enough financial resources to implement the concessions depends mainly on the attractiveness of the concession

7 Article 24 of the Draft Decree for the implementation of concessions stipulates that "the private operator is responsible, and at his own expense, for all the precautions required to be carried out professionally to avoid abnormal disruptions to resident properties and local populations".

sites, which in turn depends on the way in which Malagasy tourism differentiates itself from the other destinations of this globalized network.

External Financing: Foundations, Debt-for-Nature Swap and Trust Funds

The types of external financing that have held our attention, are the foundations, the debt-for-nature swaps and the trust funds. The current tendency in Madagascar is to combine these three instruments into one tool for sustainable financing.

The Madagascar Foundation for Protected Areas and Biodiversity

One of the major elements of Madagascar's environmental policy is the creation of a Foundation for Protected Areas and Biodiversity (FAPB) (Andriamahefazafy et al. 2007). One of its objectives would be to facilitate relations with foundations in developed countries in order to attract the donations these foundations are likely to grant for biodiversity conservation initiatives.

As a general rule, these foundations rely at first on debt-for-nature swaps[8]. For aid agencies (and intermediary conservation organisations), these swaps offer a means of financing more conservation initiatives in the debtor country. For the governments of developing countries, these swaps help them to reduce their external debt and to finance projects inside the country. However, these swaps can be complex to realise and very often require the intervention of technical experts from several external institutions, which restricts the autonomy of the governments[9].

As early as 2001, a committee for financial sustainability sought to identify sustainable funding methods for protected areas which could be used in Madagascar. After visiting other countries that had developed similar initiatives (Costa Rica, Mexico and Peru among others), and after examining several options (including green taxes), the committee opted for the establishment of a trust fund[10]. The idea of creating a foundation to manage the trust fund was proposed as early as September 2001. In parallel with work on EP 3 (2002–2003), the

8 Debt-for-nature swaps "are a mechanism by which public debt is purchased at a discount by an outside agency – often an international NGO – and retired in exchange for government commitments to fund conservation activities" (Emerton et al. 2006: 46).

9 Madagascar has had many debt-for-nature swaps, and was even the first African country, as early as 1989, to develop a bilateral exchange between the Malagasy government and USAID. It was for the remission of a $2.1 million debt, with the WWF acting as intermediary (Moye and Paddack 2003).

10 A trust fund is defined as a sum of money or other assets that can only be used to reach one or several specific objectives: financing a single protected area, an entire network of protected areas at the national level, the conservation of a specific species or conservation projects led by local communities and NGOs. It must be separated from other financial sources (such as the regular budget of the governmental agency), while being

donors and the Malagasy government defined a legal, financial and organisational framework for the foundation that relied on the 1995 Foundation Act, and defined four objectives: conservation, research on biodiversity together with ecological monitoring in protected areas, the promotion of ecotourism and environmental education. Finally, following legal audits, the 1995 Foundation Act gave way to a new law in 2004, which increased the autonomy of the foundation vis-à-vis the state and the administration. The interest rate was alleviated, as was the exchange methods between foreign and national income. On the initiative of Conservation International (CI) and the World Wide Fund for Nature (WWF), the Foundation was then created in January 2005.

The functioning of foundations is adapted to the management of the money gathered, either through donations by other foundations or through debt remissions, or in the form of trust funds. As such, trust funds have been completing the current system of financing for protected areas in Madagascar. The research carried out in several countries by Bayon et al. (2001), Emerton et al. (2006) and Spergel (2002) highlights that conservation trust funds can represent sources of sustainable financing for protected areas. Such funds enable the redistribution of significant international subsidies in the form of smaller subsidies, and their extended use over several decades. They are able to reinforce participative governance via the appointment of representatives from NGOs and the private sector, as members of the board committee of the fund, and via the granting of direct subsidies to NGOs and other organisations of the civil society.

Nevertheless, trust funds have several limitations. Administration costs are high, particularly when the capital of the fund is relatively limited or when the fund subsidizes significant technical assistance with designing and implement projects. If the investment strategy, if there is one, has not been well designed, the returns generated by these funds are sometimes relatively low, or unpredictable, especially in the short term. Also, the board committee can be persuaded to finance unrelated projects with no common objectives, if the aims and allocation criteria of a trust fund are not clearly defined within the legal documentation, right from the start.

The financial structure of the FAPB relies on the principle for which the operating costs of MNP are being financed, estimated at $3 million annually for a surface area of 1.2 million ha. The donors have worked out the capital required to obtain annual returns equivalent to the operating costs. This capital is estimated to be $50 million and has become the objective of EP 3[11]. The two founding

managed and monitored by an independent board committee. Trust funds can take on one of the following forms: an endowment fund, a sinking fund and/or a revolving fund.

11 Even if the memorandum of association of the foundation mentions that such interests can be used for activities other than those carried out by MNP (i.e. promotion of ecotourism, creation of new protected areas, etc.). This ambiguity is actually a source of misunderstandings between conservation actors since in theory, the objective of the foundation is to finance the SAPM (which includes the protected areas of the MNP's

institutions (CI and WWF) have sought and obtained fairly rapidly agreements in principle from the other donors involved in the NEAP. The foundation began its activities in 2005 with capital of around $5 million (which was valued at $17 million one year later). The money thus invested is used to purchase securities on stock markets, the FAPB having undertaken to respect the compatibility of its investments with its mission, although this cannot be verified.

The governance of such a foundation calls for three essential questions: How will the Foundation allocate non priority funds? Which proportion of MNP's need will the Foundation be able to cover in the end? And finally, does a conflict of interest arise if the Foundation mainly finances activities promoted by its founding members (state, WWF, CI, etc.)? By providing a lobbying function with foreign financiers, by sitting on the board committee of the Foundation and by being field operators and therefore likely to benefit from foundation aid, conservation NGOs *de facto* hold considerable power in this type of institutional set up.

Climate Change and Carbon Funds

With the recent development of payments for ecosystem services, the financing opportunities available to conservation interventions are increasing, linking conservation actors in developing countries directly with international financiers. The case of biodiversity offsets related to climate change and more particularly of carbon sequestration projects intended for reducing greenhouse gas emissions (reforestation, the prevention of deforestation and forestry management among others), reveal this new search for exogenous funding.

Acting Locally, Paying Globally?

In order to fight against climate change, several initiatives have recently become internationalised. Beyond the commitments related to the Kyoto Protocol and the mechanisms created within this framework (joint implementation and Clean Development Mechanism), which enabled industrialised countries to fulfil their commitments to reduce their greenhouse gas emissions, and for accessing the emission permit exchange market, several other mechanisms today make it possible to finance conservation for the countries of the South that are ultimately called upon (when the Kyoto commitments will be renegotiated in 2012) to also take part in the global effort to fight against greenhouse effects: the funds put together by the World Bank (the BioCarbon Fund and the Prototype Carbon Fund),

network and any other created outside MNP), when the amount of the funds required for its operating has been calculated on the basis of the recurring costs of MNP.

the national and regional stock markets (the Dutch and European stock markets respectively), as well as the unilateral initiatives of companies[12].

Thus, for a few years now, several countries and private companies have foreseen and developed 'carbon projects' in developing countries, either in isolation or within a regional or national framework. Their objectives are many: facilitating commercial integration with the host country, trying to achieve an ecological and humanistic image, or simply opening up the possibility of negotiating carbon credits. In the last case, the idea is to obtain credits at the lowest cost possible, i.e. where carbon sequestration operations are the easiest.

This is the case for Mitsubishi in the protected area of Makira, in the North-East of Madagascar. The carbon project, initiated by CI, the Wildlife Conservation Society (WCS) and NatSource Japan Co. Ltd (Mitsubishi Group), works on the assumption that sustainable land use helps to protect forest sectors with a high biological diversity. The investments of this firm then cover a portion of the management costs of the protected area. The proximity of international institutions (international conservation NGOs as well as the World Bank, the Global Environment Facility (GEF) and bilateral co-operations) able to act as an interface between developing countries and multinationals, facilitates this type of initiative[13].

This funding method has the advantage of accelerating the granting of funds for local associations, which supports activities of economic valorisation by establishing production networks (craft industry, apiculture, etc.). It also has the advantage of ensuring a continuous flow of income over the long term, in which case the farming groups can choose the best way to deploy these resources.

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12 For the time being, the Clean Development Mechanism (a flexible mechanism stemming from the Kyoto Protocol) does not allow to finance actions to prevent deforestation, which could be assimilated to the direct financing of protected areas. However, many NGOs manage to finance protected areas by resorting to reforestation projects within the same protected areas. In this case we are dealing with bilateral arrangements or, more simply, with conditional aid intended to have an interest in conservation, rather than participating in a hypothetical international carbon market.

13 Since 2005 several projects have thus been developed in Madagascar, in or outside protected areas, such as the Mantadia-Zahamena Biodiversity Conservation and Restoration Corridor Carbon Project, or the Makira Carbon Fund in the region of Maroantsetra. The process is as follows: the sponsor identifies, through a firm of consultants, the pre-feasibility of a carbon offset project set up in a specific location (identification of the nature of the project, i.e. reforestation, preventing deforestation, etc., and of the actors involved locally, then an approximate estimate of the project costs). If this phase is concluded successfully, then a feasibility study is carried out to refine the project further and work towards meeting the conditions for obtaining certified carbon credits (proving the augmentation of the project, identifying economic leaks and the cost per tonne of carbon, among others). If the project is finally deemed viable, it falls to the various actors to then find potential investors.

From Project to Market Logic

Considering experiences with economic valorisation, it appears that the arrival of a sum of money can destabilise a village community by creating tensions related to the improper solicitation of funds. This can create conflict between the local population and the decentralised administration, particularly the Department of Water Affairs and Forestry. Confronted with such an income, the issues around the delegation of land management and its security can be exacerbated if the project does not take these factors into account.

Moreover, the risk of a market logic developing outside the project, with on the one hand credit salesmen (local farmers' organisations and their related local or national associations), and on the other hand credit buyers (multinationals or brokerage companies), is far from negligible. The decision whether or not to buy carbon credits should logically relate to a comparison between prices in the emission permits market, the potential for technological improvements in the production processes of firms internally, and the costs of carbon credits offered by other projects, such as energy projects for example. The local communities might fail to master the process, since their projects will be in competition with other projects in other countries and, more globally, with the different options being offered to firms. There is a risk that many offers will not find a buyer or, in the best case scenario, will find a buyer via a process that will escape them altogether. As long as the situation is underpinned by pilot projects led by pioneering companies, these risks will be reduced. However, as carbon markets expand, investors should become mere credit buyers, thus leaving project initiators to cover the risks (Conservation Finance Alliance 2003).

This situation, and the future risks are not wholly perceived by the actors of the environmental policy of Madagascar. It is essential to find short term funding methods, since the socioeconomic risks of future projects are not taken into consideration in either the projects or the discourses. The vulnerability of farmers' organisations in such a market system is of no real consequence. By being at the interface between intermediary associations and/or the rural communities on the one hand, and the multinationals on the other, the most influential conservation NGOs take on the function of a financial intermediary, a function that, albeit new, mobilises their lobbying activities with private financiers and their role of historic intermediary in the local landscape.

The emergence of these new financing opportunities is compatible with policies for the expansion of protected areas. For many authors, the existence of transaction costs with a not insignificant fixed percentage encourages the promotion of larger scale projects (Wunder 2005; Pagiola et al. 2005). As highlighted by Smith and Scherr (2002: 31), "the bigger the area, the more tons of carbon involved and the lower the unit costs of items like project design, management and certification". The development of market mechanisms with an international dimension, and the sequestration of carbon or others, is likely to promote far-reaching projects. Conversely, it will be more difficult to appropriate these projects locally

(for example, the difficulty in co-ordinating farmers' organisations over an important number of villages or *communes*). The problem encountered by NGOs promoting projects with a view to obtaining payments for ecosystem services over large surface areas, is to find associations, at the local level, that can take over: associations that have sufficient influence towards the local population, and that have at their disposal adequate internal structures (personnel, operating means, etc.) to cover fairly large surface areas. Finally, by shifting the decision centre to the international level, i.e. in an environment made up of international NGOs and multinationals, there is a great risk that these projects will be disconnected from the local situation on the ground.

Conclusion

Thanks to new financial instruments, the policy for the expansion of protected areas in Madagascar gives an economic legitimacy to its sustainable financing objective. The fact that, today, donors associate the financial sustainability of an environmental policy with the sustainable financing of protected areas, is a good reflection of this shift. Conversely, NGOs and donors that promote these instruments rely on protected areas to justify the economic interest of conservation and the use of these instruments.

The Malagasy experience shows how, in the space of a few years, the discourse surrounding these new financing instruments has become common to all environmental policy actors. It goes hand in hand with the increase in the surface area of protected areas in Madagascar, without necessarily guaranteeing efficient financing.

International financial instruments contribute to an increase in the number of intermediaries and, in so doing, displace the centres of decision-making and negotiation to centres outside the country (stock markets within the framework of trust funds, carbon markets concerning the tools linked to the negotiations on climate, etc.). This increases the power of conservation NGOs, which can serve as financial intermediaries between foreign sources of funding and park managers, and potentially farming groups. Moreover, this tendency to develop instruments for supplanting state power, assuming they become efficient, runs the risk of straining relations between the decentralised services of the forestry administration and the other environmental policy actors. This problematic goes beyond the Malagasy case, since in many other countries (see the classic case of Costa Rica) the tendency towards the development of these financing instruments is real. Even if the economic and institutional characteristics differ from one country to another, the issues found in the Malagasy case undeniably have an international impact.

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