

## **LOCAL GOVERNMENT AND THE INTERNATIONAL BIODIVERSITY REGIME COLLECTIVE BARGAINING OVER STATE FORESTS IN MADAGASCAR**

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Frank Muttenter  
Graduate Institute of Development Studies  
C.P. 136  
1211 Geneva 21  
Switzerland  
e-mail : frank.muttenter@iued.unige.ch

### Abstract

Decentralized governance of biological resources has become a widely accepted standard of multilateral and bilateral aid programmes. Recent environmental and forestry legislations in many of the developing countries hosting significant biodiversity provide for the establishment of community forests. Participatory institutional arrangements at the local level are expected to be more efficient than centralized management regimes in dealing with environmental externalities. Following a reversal of forest policy in 1997, the management of State owned forests in Madagascar can now be delegated by contract to village communities. The policy aims at negotiating on a case by case basis a new legal status of forests. Negotiations are being conducted through a specific procedure of environmental mediation. But there is a lack of institutional demand to deal with environmental externalities. Due to legal pluralism, peasants are generally not in conflict with administrative agents. In many cases, potential contracting parties of management transfer already cooperate through parallel networks which result in unsustainable management. Because they are disempowered to challenge the working rules of these networks, forest users refuse official environmental mediation. Collective bargaining thus needs to be construed to render rules negotiable which have so far remained un-challenged. Unsustainable management cannot be transformed on the basis of local level negotiations alone. If negotiations are to be effective at the village level, collective bargaining has to create incentives at the national and international levels of governance. Negotiations would have to externalise the latent or hidden dimensions of conflict by re-defining framework conditions under which local level negotiations are conducted.

## **I - Introduction**

International regimes are not effective and resilient because of their formal legality but because of the social practices which bring principles, norms and rules into existence by ascribing a meaning to them. International regimes can be viewed as processes of which the legal and scientific documents are but the images and benchmarks at a given moment in time. In the present paper, the concept of “international biodiversity regime” is understood as a dynamic network of transacting and decisionmaking which is articulated around the objectives pursued by different stakeholders in this network. International norms, principles and rules in the issue-area of biodiversity do have a measurable impact on the policy choices of Madagascar. The country has been engaged in environmental conservation programmes since 1990, participated in the Rio Conference on Environment and Development in 1992 and is now a party to the Convention on Biological Diversity (CBD). It has enacted legislation in 1996 which is widely considered an exemplary model of sustainable multi-stakeholder management of forests and other renewable natural resources (Hufty & Muttenger, 2002). Madagascar is a typically a country that has complied with agreed-upon regime norms to the satisfaction of the international community, except for two phenomena which escape from the usual perspective of international regime theory and await explanation.

First, the implementation of domestic policies is under the continuous although diffuse influence of donor organisations. In Madagascar, as in other developing countries, the implementation of international norms and standards in the issue-area of biodiversity precedes the adoption of the CBD. As we shall argue in this paper, this chronology is due to a functional relation between the international biodiversity regime and the policy-based conditionality of foreign aid. Legally sovereign but aid dependent states agree to restrict sociological sovereignty by conceding an international right of inspection over forests and other natural resources on their territories in exchange for additional development funds. The monitoring of national administrations becomes possible through routine negotiations concerning the objectives and the financing of Madagascar’s National Environmental Action Plan (NEAP). These negotiations are not exclusively or even primarily concerned with the five-year programme planning (the NEAP’s overall time framework of 15 years is divided into three such five-year plans) nor can they be understood in terms of a one to one interaction between donors and the “government of Madagascar” as a distinct entity. Monitoring of aid recipients is practiced in a continuous but piecemeal fashion for each disbursement and in relation to each “partner” agency or ministry separately.

Second, national legislation on environmental issues has been subject to important changes during the last decade. The remodelling of environmental legislation has been initiated and carried out with technical assistance from the major bilateral and multilateral funding agencies. Forests have been the main focus for concerns by the NEAP donors about the conservation and management of Madagascar’s biological diversity. Recent legislation covers protected area management, forest policy in general and contractual local resource management by village communities. The issues raised in this paper concern the mechanisms underlying both international monitoring of norm implementation by domestic administrative authorities and the intervention of donors in the legislative process. We shall argue that both phenomena should be viewed as being part of a single framework of economic, political and ideological control. The data supporting this argument are provided by the relationship between conditionality and expert knowledge in the case of the formulation of the new forest policy. To get a clearer picture of what is at stake in collective bargaining over Madagascar’s state forests, two peculiarities shall briefly be mentioned in this introduction.

To be able to reproduce itself as an institutional arrangement, policy-based conditionality need not be effective. It suffices for aid recipients to engage in policy reform, even if their

compliance with international regime norms consists only in paying lip service, in talk that is not followed by action. In fact, since the adoption of the NEAP in 1990, Madagascar has continued to overexploit biodiversity resources at a pace alarmingly close to “sovereign deforestation” prior to specific international institutions in that issue-area. The emergence of the international biodiversity regime therefor cannot convincingly be explained in terms of “the adaptation of the political system to the new challenges of ecological problems”. We shall argue that the sociological causes of a global regulation of biodiversity are to be found in a thorough transformation of foreign aid relations during the 1980’s. Alongside the “struggle against poverty”, environmental issues created the opportunity for the World Bank to reshape the foreign aid relations in such a way as to become the major player in North-South relations. Although the power or influence of the World Bank over aid recipients is at best partial and resistable, bilateral donors and the U.N specialised agencies are increasingly under the Bank’s political and ideological domination. The influence of the World Bank over other donors is held by one analyst to have increased in proportion to the increasingly comprehensive demonstration of the hollowness of the influence of donors generally over recipients (Gibbon, 1993 : 36).

Moreover, expert knowledge is generally persuasive enough for both aid donors and recipients even to pursue ineffective policies, given that experts bestow a transcendental “scientific” legitimacy upon these policy-based conditionalities. The scientific question asked by an analysis of regime effectiveness is how regulations defined at the international level become operational in domestic laws. According to the literature on “epistemic communities” and “institutional design”, the difficulty is to link substantial objectives of international negotiations (such as biodiversity conservation, benefit sharing etc.), procedural results (policy formulation, procedures for registering questions on the political agenda, choice and influence of the stakeholders in the negotiations, etc.) and local practices in such a way as to understand what can or cannot be handled by the arrangements resulting from the international compromise and its mode of norm creation. In other words, research on “epistemic communities” tries to understand how the results of the application of international norms can be fed back into the process of negotiation of international norms. It is interested in analysing regime formation as an instance of collective learning experiences.

The case materials presented in this article suggest the hypothesis that such learning processes are possible but that they are neither necessary nor automatic. Interestingly enough, the recurrent failures of environmental policies in aid recipient countries are not reflected by the theories of relevant epistemic communities. Madagascar’s environmental policy being designed and implemented in a framework of authoritative aid coordination, the monopoly of received wisdom about the “local governance of biodiversity” gives moral comfort to a donor community which otherwise has little real influence over aid recipients. Scientific research programmes such as those on common pool resource management or on international environmental regimes are naturally reluctant to investigate an aid-driven policy process of which they are themselves part. The “distorsions” of expert knowledge being what they are, it is the very idea of a collective learning process which leads to question the political role of transnational epistemic networks in environmental governance.

## **II - Forest Management as A Policy-Based Conditionality**

Madagascar currently has a network of 50 protected areas totalling an area of 1,698,000 ha. The network is managed by a parastatal organisation called ANGAP (National Association for the Management of Protected Areas), and is comprised of 11 integral natural reserves, 16 national parks and 23 special reserves. Following the model established during the 1920’s, most of these protected areas are located in regions characterised by slopes greater than 5 degrees, thus difficult of access. Their role in the preservation of the flora and fauna of Madagascar will

certainly be crucial. But they are surrounded by forests on more level topography, which are much more threatened because they are more accessible. One of the findings that came out of the evaluations of the first five years environmental programme was that the majority of species and ecosystems fundamental to Madagascar's biological biodiversity are found outside of protected areas (representing only 12.8% of forested areas, especially in the 158 classified forests and 99 forest reserves, covering 4,024,634 ha, managed by the Ministry of Forests and in the non-classified state forests (Hagen 2000; Raharison, 2000). From a standpoint of conservation and potential commercial use of biodiversity, "conservation actions must be extended to forested areas which are subjected to the greatest deforestation, and therefore the most threatened" (Raharison, 2000: 6).

During the first five year programme within the NEAP framework (1991-1996), a new forest policy had been worked out by the administration in collaboration with the Swiss, German and Norwegian bilateral co-operation agencies. Drafted from the work of technical working groups and regional workshops, the forest policy did not escape the eruption of conflicts of interest between the stakeholders involved in the process. According to an active participant in the process of forest policy formulation,

"the decisional debates actually did occur at the different levels of organisation (regional, national), but instead of leading to a real consensus on appropriate management rules, they exacerbated the rift between a public administration, to whom a reduction in responsibilities was imposed and a transfer of management to local communities was stipulated, and a parallel administration born of the implementation of the NEAP. This open conflict benefits the major funding agencies which, as a consequence, have gained the necessary leeway to decide on their own the use of measures which were supposed to be decided in concert with national partners" (Ramamonjisoa, 2001: 4).

According to decree 97-120, the objectives of the new forest policy are to stop the process of forest degradation by supporting substitution practices to shifting cultivation and by limiting brush fires; to better manage forest resources by implementing forest resource management plans and by rationalising the forest system; to increase the area of protected forests and forest potential by promoting reforestation, by ensuring land-ownership security and by intensifying the management of watersheds; to augment the economic performance of the sector by increasing the value of forest products. At the strategic level, the policy seeks to reconcile sustainable management of forest resources and the need for economic production; to reform the forest administration within the framework of disengagement of the State; and to encourage local and participative management of forest resources through a transfer towards local communities of all or part of the management authority on certain State forests.

In the recent evolution of the theories concerning tropical forest management, preoccupations have progressively moved away from issues of technical allocation and distribution tasks towards a debate on the objectives of management. Nowadays, instead of focussing primarily on sustained production, objectives are defined in terms of sustainable use of forest ecosystems by multiple stakeholders in the larger context of land-use management. However, the implementation of negotiated management plans, which is a prerequisite to this programme, is still largely hypothetical. State forest governance remains a legal fiction established by colonial law, and which the new forest policy and the national network of protected areas are only partially putting in concrete form. Although one of the implementary decrees (98-782) of the new forest law requires all forest exploitations to conform to management plans before 2001, and despite financing and support of the projects, there is to this day not a single forest exploitation occurring in Madagascar which follows a management plan (Hagen, 2000).

The external funding agencies of the second five year programme (1997-2001) are grouped in a "multi-funding secretariat", which establishes through the "Funding Committee for

the Environment” (FCE) a regular dialogue with the Madagascar government and the various agencies involved in the Environmental Action Plan. This structure is modelled on the round table system of the UNDP and the World Bank where creditors collectively enter into a “country dialogue”. This dialogue is a negotiation game in which the receiving or borrowing State tries to obtain the highest level of financing for the best conditions, whereas creditors try to impose a set of payment conditions linked to their vision of the policies the receiving State should adopt. A dialogue of this type occurs regularly concerning the objectives and financing of programmes and projects within the NEAP.

From March 8 to 23, 2001, the delegation of the Malagasy government and the donors and creditors group met in Antananarivo within the FCE framework in order to discuss the strategic orientation of the Environmental Action Plan up until the end of the second five-year programme (CFE 2001). Among the measures decided by the FCE, there is an “Action plan 2000-2002 to improve the efficiency and the effectiveness of the Forest Service in a framework of transparency and good governance”. This plan consists, among others, of the following measures:

- Stopping all extractive activities in sensitive areas (protected areas and gazetted forests); publishing the information concerning all of the currently held permits and temporary or exceptional authorisations;
- Revision of the regulations and procedures for issuing exploitation permits; implementation, within a time frame of 18 months or less, of an exploitation permit delivery system by means of a call for tenders or auction; suspension of the allocation of new permits using the current procedure;
- Implementation of an improved system of delivery and follow-up of authorisations for land-use conversion (agriculture on forest lands);
- Reinforcement of forest control and implementation of an improved management system of infractions and of the follow-up of transactions;
- Starting to operate the “Observatory” of the forest sector, created by ministerial decree in November 2000, which has for its mission to oversee rules of good governance in the sector and which will be in charge of overseeing the implementation of the action plan.

It is surprising to observe this re-affirming of measures which have been part of the forest legislation since the beginning of the 1990s in the annual work plan of the Ministry for 2001. These measures had actually not been followed. It is equally surprising that the Ministry of Forests finally outlined its annual work plan in May 2001, immediately after the FCE meeting. The Ministry indeed had to wait until after the donor group meeting before deciding on its priorities, in order to ensure the annual financing from which it benefits for the EP2 components placed under its responsibility.

Following the 2001 meeting of the Funding Committee for the Environment, a “working group on zoning” was created which brings together the technical advisors of bilateral co-operation agencies, the conservation NGOs and officials of the forest administration. A preliminary zoning of the country’s forests should be completed, using in particular the maps of the 1996 ecological survey, in order to determine the zones which will be made the object of further consultation. A report of a USAID/World Bank evaluation of the management of natural forests, which had been carried out prior to the 2001 meeting of the Funding Committee for the Environment, noted that “the means to achieve the objectives of the Forest Policy have not been clearly defined” and made it clear, on the basis “of the lessons acquired during the Workshop on the World Bank Strategy on forestry issues held in Washington in May 2000”, that a new type of national forests management based on a zoning plan was needed, which would allow the Ministry to have in its hands “elements of dialogue and follow-up with all the local entities concerned for the rational and sustainable management of forest heritage at different levels, on

the one hand, and with the international technical and financial aid, on the other hand” (Hagen, 2000: 50-55). According to the World Bank representative, the long term vocation of the different forest expanses of the country must be determined. It is proposed, “as an example”, that the nearly 12 million remaining hectares would eventually be distributed among the four following categories (CFE, 2001: 69):

- Two million hectares for protected areas;
- Four million hectares for management by communities;
- Four million hectares managed by the public forest administration for prevention of harvesting or for exploitation by tender;
- Two million hectares of concessions to moral or private persons, including territorial collectivities.

A few years earlier, the country-wide zoning of forests had already been programmed to facilitate better forest management and as a prerequisite to updating the national Ecological and Forest Survey but eventually not received funding. But in the meantime, “zoning plans” have become a central feature of exemplary management of forested areas worldwide:

“it provides the proposals for dividing these areas according to their “vocations”, such as the density of human inhabitants and the state of the vegetation cover. The hypotheses about a linear relationship between population density and deforestation used in the zoning plan implemented in Cameroon by Canadian specialists clearly indicates that the main objectives is to draw “lines of defence” against the agricultural front. Agricultural and forest systems are put face to face in a model with dissociated areas which reflect more the western representations than the practices of the rural people of Cameroon in forested areas” (Karsenty, 1999: 53).

However, the implementation of the zoning plan may eventually lead to a problem of sharing of territory between the public forest administration and the village communities. Given that the different categories of forests are defined in a mutually exclusive manner, the public delimitation and thus the resources allotted under the category “village forests” will depend on prior classification in the zoning plan. Yet according to the law of 1996 on contractual management of local commons however, the management transfer can be requested by village users for any local forest, that is independently of its status in the zoning plan. Eventually, that contradiction will require some sort of arbitration between “top-down” zoning based on ecological criteria and “bottom-up” initiatives by direct users as proposed in the contractual management law. But so far, issues of jurisdictional scale and the danger of policy incoherence have not received an appropriate procedural solution. Given the lack of incentives under the current institutional environment, bottom-up requests asking for local management contracts are indeed hard to come by.

As we can see through this example, the implementation of international norms on biodiversity is conditioned by a parallel creation of norms, rules and principles at the global level. At the level of international negotiations, biodiversity is the object of multilateral environmental agreements such as the CBD. In social practice, norms in the issue-area of biodiversity are created and implemented according to the logic, interests and standards of donor organisations, that is at a level of policymaking with a high degree of autonomy from the corresponding international negotiations. The World Bank has been able to advance its own position within the aid regime by securing control of new environment-related aid funding. In the process, a further opportunity has been created, namely to strengthen the aid regime itself by feeding environmental aid into the general system of policy-based cross conditionality (Gibbons, 1993 : 50). The Global Environmental Fund (GEF), created one year before the Rio conference by the World Bank, was designated, from lack of better alternative and because of pressure from countries of the North, as the temporary financing mechanism of the CBD. It remains as such 10 years later and represents one of the major sources of financing for national conservation

programmes linked to the application of the Convention. In Madagascar, the GEF has pledged to provide 25% of external funding (20.8 million \$US) for the financing plan of the EP2. Formally co-administered by the World Bank, the United Nations Programme for Development and the United Nations Programme for the Environment, it is strongly influenced by the organisational culture of the Bank and of the foreign aid regime.

The national conservation programmes of developing countries are designed and implemented within the framework of foreign aid. They are characterised by policy-based conditionality, technical assistance provided by foreign experts, artificial creation of “local” NGOs, participatory ideology, etc. By accepting to adapt their roles and policies to the agenda of foreign aid, Madagascar’s political elites delegate the responsibility for policy coherence to donors. This acceptance manifests itself through the adoption of legislation designed by foreign technical assistants, or through changes in organisation of State services, whether it involves the restructuring of existing administrations, as in the case of the Ministry of Forests, or the creation of administrative authorities directly financed and structured by donors, such as the executive agencies of the NEAP. In order to circumvent national administrations held to be inefficient, donors may decide to duplicate them by creations ex nihilo.

The aid regime’s management credo advocates not to worry about existing institutional structures when these do not meet the criteria of efficiency, responsibility and transparency. This reasoning rests on three postulates. First, that the government of Madagascar does not have the institutional structures adapted to their needs. Second, that the ineffectiveness of these institutions is the consequence of bureaucratic tradition and of informal networks which have penetrated them. The objective of donors is to create an unspoiled institutional situation, with administrative authorities based on modern management ethics and supposedly free of the crony networks or of political influence. Third, the idea that these new institutions are the spearhead of State reform, and that by emulation, they will stimulate a general transformation of bureaucratic organisations.

However, the apparent acceptance of foreign norms and standards hides a series of unresolved issues. Although officially an executive agency of the NEAP, the Ministry of Forests remains its largest missing partner. Its staff and financial resources are clearly insufficient to accomplish the tasks assigned to it by legislation, in spite of project aid for administrative reorganisation. The actual possibility of action of the Ministry is, under current rules and practices, limited to the field interventions financed by project aid. The Ministry of Forests reacts and adapts to the changes proposed by the NEAP executive agencies rather than anticipating them. The “parallel” administrative authorities such as ANGAP, do benefit from important foreign funding but fail to be inserted in the historicity of the social fabric. They are integrated by public officials in a logic of expectation of being “abandoned” by foreign aid. Moreover, the privileges associated with membership in the new administration create resentments and antagonise the organisations “at the expense” of which project aid is spent. The healthy emulation is transformed into a pursuit of relative gains which paralyses concrete action:

“The debate which should be focused on the management norms of the resource is but the hidden face of another on the question of the role of the stakeholders associated with decision making. Each of the groups of stakeholders has an interest in making its situation more permanent. The parallel administration which must disappear at the end of the Environmental Programme 3 consoles itself in its position of “good student” when its only credibility is of complying with the rules of transparency and of conformity without any political influence from the State. This administration, which is made up of transferred personnel from the public administration, does not miss an opportunity to show that the public administration no longer has the necessary expertise to be an efficient partner in resource management. Foresters react logically to this by

implementing a strategy of systematic obstruction at their level of competence: still, the right of veto is present (proposition and endorsement of legislation, powers of assent, examination and delivery of permits)” (Ramamonjisoa, 2001: 4).

It is not obvious that this “right of veto” will be eternally tolerated by donors who wish to reduce the rate of deforestation to conserve “biodiversity”. In the donors’ prevailing opinion, the direct management of the national domain by the forest service should be defined in an organisational framework which is more “dynamic” and more efficient for meeting this objective. According to the new forest legislation, there is no impediment to removing the jurisdiction of the Ministry of Forests and Wildlife in favour of an independent management authority similar to ANGAP. Such an organisation would be called upon to ensure the prerogatives of public power, especially in the case of the application and follow-up of the regulations, as well as in the matter of enforcement. It should also ensure a dynamic technical support in order to respond efficiently to opportunities and adapt rapidly to changes.

As a result of structural adjustment and of the progressive transformation of conditionality, the developing States are splintered into different sectorial organisations who have a direct dialogue with donors. The government, although participating in the negotiation of multilateral environmental agreements, is only partially capable of ensuring a coherence between rules of international law and the day to day management of biodiversity on its own territory by the networks of foreign aid. The stakes and struggles which this situation implies are under-analysed by the social sciences, primarily because these are primarily oriented by the CBD and other international agreements. It is rare to find analyses which go beyond the operational preoccupations of domestic implementation of multilateral environmental agreements, and which at the same time rely on empirical analysis. Secondly, the standard approaches have difficulty in conceptually grasping the differences and the interplay between international and global norm production.

Procedures of policy formulation at the global level had fundamentally changed after a sharp break which occurred in 1980-85 in the extent and form of aid regulation. Prior to 1980 various actors, private and public, bilateral and multilateral more or less competed with each other to lend to the less developed countries. The early 1980’s witnessed a sharp decline in the real value of both bilateral and multilateral aid flows. The only forms of development assistance which registered an increase in that period were “programme” or non-project aid and aid channelled through non-governmental organisations. Non-project aid was to become the centre of a strategy to provide the World Bank with a secure and eventually hegemonic role in the donor community:

“IMF policy-based lending had been historically characterised by lender conditionality, and this became true of World Bank policy-based lending too. Policy-based loans were tranching and, theoretically at least, recipients could only gain access to significant levels of assistance if they could demonstrate that policy changes had actually been made. This implied a need for cross-conditionality, and aid coordination, for there was little point in the IMF and World Bank setting inconsistent conditions, nor conditions which they agreed on but which were not observed by other important donors” (Gibbon, 1993 : 38).

From the early 1980’s, specific aid-coordination institutions emerged, in the form of “donor consultative groups” for each country. From occasional meetings between recipients and bilaterals for purposes of coordinating pledges of new aid with recipient lists of new projects, these groups turned into mechanisms for the semi-formalised review of recipients’ progress with policy reforms. As these meetings became regular, the World Bank’s role moved from one of passive chairing to one of disseminating economic information and suggesting options. With this kind of system in place, the way in which policy recommendations are formulated is influenced by control of expert knowledge. The majority of bilateral donors often have no Bank independent sources of information nor means of interpreting them. From 1985 onwards, policy-



based lending was extended to sectoral, rather than merely macroeconomic, policy reform. The application of policy-based lending to the sectoral level provided a mechanism for firmly tying continuing project aid to policy reform, as exemplified by Madagascar's NEAP.

The World Bank's claim to exercise a leadership role in aid coordination also rested on the elaboration of a new aid discourse. It proposed that the role of the state required redefinition in terms of providing an "enabling environment" for free enterprise (rule of law, accountability of officials etc.) on the one hand and of supplying basic social services on the other (involving various forms of "cost-sharing" between the state and private individuals or communities). Both the idea of "good governance" and the idea of "public-private partnerships" can be found in the discourses of environmental policy reform in Madagascar during the 1990's. As exemplified by "common pool resource management", these discourses identify the statist postcolonial legal framework with traditions "alien" to aid recipient countries, and regulatory incentives (instead of controls) and non-state voluntary associations with "indigenous" or "endogenous" African values and practices (Muttenter, 2001 : 97).

Formally, all individual donor organisations within NEAP remain autonomous in reaching decisions about aid "philosophies" and about particular projects. Nevertheless, the tendency for key decisions to refer to medium-term aid objectives, as exemplified by the five-year programming of NEAP, and to "suitable" policies, as exemplified by donor consensus on legislative priorities, is well established in the "national action plan" framework. There are also a number of concrete instruments by which donors hope to enforce conditionality on recipients. These include obliging the recipient to formulate a statement of general objectives with regard to policy and institutional change and to draw up a list of monitorable actions. The funds are then released in tranches whose timing and level is tied to the attainment of specific monitored objectives. A complementary mechanism of enforcement is cross-conditionality with its increased range of sticks and carrots. As a matter of fact, cross conditionality is far from consistently applied when it comes to monitoring local administrations responsible for policy implementation. As the example of Madagascar's Ministry of Forests shows, default is extremely common and hard to punish, given that to do so would not be in anybody's interest.

### **III - Legislation and the "Common Property" Epistemic Community**

Epistemic communities are defined as networks of professionals with recognised expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue-area. This claim rests on a "theoretically informed vision of reality and a notion of scientific validity which consist of internally formulated truth tests" (Hasenclever, Mayer & Rittberger, 1997 : 149). The members of an epistemic community share a common understanding of particular problems and a preference for a set of technical solutions to these problems. In some cases, they may speak out only at the request of decisionmakers. In other cases, they have an idea of a better public policy and seek to get access to governing institutions.

Given that decisionmakers may doubt the very necessity to take political action, the identification of an "ecological problem" such as deforestation will require considerable input of scientific knowledge. Shared knowledge is a necessary condition of regime formation. There must be a common understanding of both the nature of the problem to be solved, e.g. "open access due to inefficient management of State forests by central authorities", and appropriate means to attain the valued ends, e.g. "recognition of self-governed common pool resource systems". Moreover, shared knowledge is not only a precondition but also a consequence of regime formation, "since improved scientific data collection is usually one of the points most easily agreed to by participating actors" (List & Rittberger, 1992 : 104). Useful as the establishment of a transnational epistemic community may be, it is not a sufficient cause for

regime formation. It has been argued that for knowledge to have an impact it must be widely shared by key policy makers (Krasner, 1982). According to less “rationalistic” assumptions, epistemic policy coordination is only likely to occur in the presence of (1) a high degree of uncertainty among policymakers, (2) a high degree of consensus among scientists, and (3) a high degree of institutionalisation of scientific advice. In the following, we shall focus on the third condition which can be held to occur whenever the first and the second are met. There is clearly a high degree of uncertainty among policymakers with respect to the consequences of development aid. However we shall argue that in a power structure characterised by authoritative aid-coordination but low control of donors over recipients, consensus among scientists is the consequence rather than a trigger of the institutionalisation of scientific advice.

Recent research on the sociology of development projects is interested in the “short circuits” put in place by donors and in analysing its effects on domestic institutions (Jacob, 2000; Naudet, 1999). “Short circuits” are defined as the selection by aid agencies of the institutions, groups, individuals and ideas of the recipient society which they view as suited to support their development action. In order to attain its project or programme objectives, each agency creates a specific network of relationships with the local partners who, in turn, will need to adapt to the specificities of the planned action in order to benefit from the corresponding funding. Agencies are primarily concerned “with the good operation of the tools they have devised, the materialisation of results that can be attributed to them and the promotion of the exemplary nature of their own style of support” (Jacob, 2000: 24), rather than with the real consequences of their actions.

The short circuits, in Madagascar, are the selections made by individual development agencies in the context of financing of field interventions, which include activities within the general framework of the NEAP. An example can be provided from the Integrated Conservation and Development Projects (ICDP), the main management tool for protected areas until 1995. In contrast to the parks created in the colonial period, the ICDP concept added a buffer zone to the protected area, exploited under the control of the Ministry of Forests and Wildlife with the participation of adjacent populations. These projects tried to mobilise the population for conservation by offering monetary income (hiring of local guides and redistribution to the communities of part of the entrance fees of tourists) or small local development projects: access roads, schools, health stations, irrigation projects, against surrendering access rights to the protected area. By deflecting human pressures with incentives and disincentives, they sought to reach a compromise between the temptation of the conservationists to completely exclude populations from protected areas and the prohibitive costs of this type of measure. Presuming that individuals living in the periphery of protected areas were the main culprits of deforestation, the ICDP’s mechanistic outlook neglected the possibility that production channels leading to over-exploitation may have their centres well away from the protected areas.

Each ICDP was managed by one or several distinct agencies, whose particularities determined the operational style of the ICDP supported. As a model, the ICDP tool and its participative logic represented in itself a minimal mechanism of co-ordination among donors. Each development agency has, however, discovered the failure of this model in the field and thus of its own short circuit, instigating a general demand for a change of the management model for protected areas. In other words, there was a need for donors to co-ordinate the development and conservation actions, and therefore of a larger institutional environment which is coherent with everyone’s “short circuit”, if only for the sake of sustaining foreign aid spending. That is how the National Association for the Management of Protected Areas (ANGAP) was created during the first phase of the NEAP. It is a decentralised and financially independent administrative authority placed under the supervision of the Ministry of the Environment. Although the state remains the nominal owner of protected areas, the Ministry charged with the supervision of ANGAP has in reality little influence on it. By contrast, the relationships between ANGAP and its donors are

close. Objectives and procedures are negotiated with donors. Those in charge of its services are supported as a matter of routine by expatriate technical advisers and by foreign experts who intervene punctually in important studies and evaluations.

Selective interventions by donors may also be extended to the reform of the conventional administrations and include drafting of new legislation: “short circuits” are complemented by “long circuits”. Examples of such “long circuits” are the new legislations on forest management (1997) and on contractual management of local commons (1996), after the failure of the ICDPs had been officially recognised at a national workshop on human inhabitation of the protected areas (Weber, 1995). Applied to the implementation of regime norms in the issue-area of biodiversity, the concepts of “short circuits” and “long circuits” can make up for the shortcomings of a formal definition of the international biodiversity regime. A formal definition is too restrictive since it disregards the conditionality mechanism by limiting the scope of analysis of implementation to the normative substratum of multilateral environmental agreements. There generally exists a functional complementarity rather than a rivalry between the short circuits and the long circuits, between grass-root interventions of aid agencies and the modification of the legislative framework within which these interventions are carried out. The change in the framework conditions reduces the tension caused by the disharmony between field actions and the legal and administrative setting, and is supposed to minimise transaction costs and facilitate the co-ordination of participants. However, the functional complementarity between short circuits and long circuits also operates in the opposite direction: in order to supply scientific evidence of the merits of administrative reorganisation and of the new legislative framework, donors cannot do without the results of the experiments carried out by field projects.

Case studies on the local governance in the peripheral zones of a few protected areas (Montagne d’Ambre, Zahamena, Ranomafana and Andohahela) conducted with USAID funding between 1991 and 1999 showed that “efficient local traditional regulations” coexist with the formal institutions and regulations (Razafindrabe, 1996; Rabesahala, 1994). Under joint funding by several agencies and following a new series of preparatory workshops,<sup>i</sup> these observations lead to the drafting of a legal policy of “local contractual management” enacted as law 96-025. Village communities regrouped in users’ associations can request concessions of exclusive use rights on the private lands of the State in a framework of negotiated management plans, a procedure known as “Gestion locale sécurisée” (security in local management).<sup>ii</sup> The policy aims at a radical change in natural resources management by assigning a central role to rural dwellers and by fostering the creation of intermediate management structures that are closer to the population than the “communes rurales” (decentralised local government units).

The community based model breaks away from the traditional State monopoly in forest management. According to its proponents, the shift to a contractual process goes far beyond “participatory” development, since it allows for the local negotiation of management rules, something which was not possible with the previous participatory approach. The goal of these contracts is to define local co-management between communities and the State. The different stakeholders concerned with renewable resources management (State, rural communities, territorial collectivities, NGOs, development or conservation projects) suddenly become partners which must agree on common objectives with respect to long term sustainable management of resources and accept reciprocal obligations (Bertrand, 1999). The successful shift from a participatory towards a negotiated approach depends on the establishment of operational structures which take into account the number and heterogeneity of stakeholders whose logics and interests differ. The key to this policy is the “environmental mediator”<sup>iii</sup>, a person responsible for negotiating between the administration and the village communities the future management rules (Babin, Bertrand, Weber & Antona, 1997).

Until the mid 1990's, rural dwellers were unanimously held responsible for the deforestation occurring in Madagascar. That shifting cultivators were the main culprits of forest degradation. The Environmental Charter which legally established the NEAP in 1990 expressed the view that shifting cultivators were the main culprits of forest degradation:

“The itinerant deforestation of natural forests constitutes one of the primary factors of environmental deterioration, along with the practice of brush fires. (...) as long as land management will depend on the authority of Tangalamena (chiefs of customary lineages) who determine the annual tavy zones, as long as the zebu will be the centre of the civilisation of an entire people, and as long as rice will be considered the only food of the Malagasy, it will be no easy task to solve the environmental problems of the Malagasy people” (RdM, 1990:18).

Although the first experiences with community forestry by FAO programmes date back to the early 1980s, participatory or contractualised management of local commons was not widely discussed as an administrative model before the Rio Conference on Environment and Development in 1992. During the UNCED process the international community showed a sudden interest in local knowledge and this rediscovery of the “traditional” transpires in the whole discourse on biodiversity and “sustainable development”: Agenda 21, Article 8j of the CBD and debates surrounding the “equitable sharing of benefits”, or the recognition of the intellectual property rights over community knowledge associated with biodiversity. Theoretical work on “common property resources” postulated the usefulness of customary regulations to solve the problems of open access causing deforestation (Bromley & Cernea, 1989; Ostrom, 1990).

The epistemic community's shared understanding of the problem to be solved is the alleged “neo-malthusian fallacy” of confusing open access with common property. Garret Hardin's tragedy of the commons metaphor convinced many non-economists that the “prisoner's dilemma” captured the essence of the problem facing most common-pool resources. Since appropriators were viewed as being trapped in these dilemmas, recommendations were made that external authorities must impose a different set of rules on such settings. Common property theorists criticise this view by arguing that many successfully governed common pool resources have survived for centuries relying on self-monitoring and self-enforcing patterns of human interaction. Solutions worked out by individuals directly affected by common pool resource problems may therefore prove more successful and enduring than resource regimes imposed by central political authorities, under the conditions which theory can specify. Once forests were nationalised, they were perceived by local users as property of the government rather than as local commons with a long-term value to users. Since they no longer perceived themselves as the owner of these resources, a rush to harvest before others did ensue and deforestation processes accelerated (Ostrom, 1998; Keohane & Ostrom, 1995).

#### **IV - The Tragedy of the “Shifted” Cultivator**

A shared understanding of the appropriate means to attain the valued ends logically follows from the previous problem identification. The common understanding evolves around the objective of reversing nationalisation of forests and returning them back to users. This objective is expected to be achieved through the recognition and fostering of robust self-governed common pool resource systems. The truth tests formulated by the CPR epistemic community to validate its theoretical claims evolve around the so-called “design principles” of robust, self-governed commons, such as clearly defined boundaries, cost-benefit evaluation, collective choice arrangements (participation), self-monitoring or accountability of rule-monitors, graduated sanctions, conflict resolution mechanisms, minimal rights to organise, nesting in larger organisation (Ostrom, 1990). The truth tests formulated around these principles are intended to “challenge the generalisability of the conventional theory”, taking into account that “a fully

articulated, reformulated theory encompassing the conventional theory as a special case does not yet exist”(Ostrom, 1998 : 4). A fully articulated theory of the Biosphere may of course prove the “long-enduring self-governed commons” to be the special case, instead of the “conventional theory” associated with Hardin’s tragedy of the commons metaphor. But if one judges from legislation in Madagascar, he finds that such uncertainty could not prevent the members of the “common property” epistemic community from having access to the governing institutions in development aid recipient countries.

The “shifted cultivator” (Norman Myers) being the principal cause of tropical deforestation, long-enduring and sustainable common pool resource systems should in fact be considered a special case in the issue-area of biodiversity. According to Myers, “the shifted cultivator find himself squeezed out of traditional farmlands in areas many horizons away from his country’s forests, whereupon he feels compelled to head for the only unoccupied lands available, the forests. This applies in dozens of countries, from the Philippines and Thailand to Madagascar and The Ivory Coast, and to Mexico and Brazil. Being powerless to resist the factors that drive him into the forests, the shifted cultivator is no more to be ‘blamed’ for deforestation than a soldier is to be held responsible for fighting a war. But he advances on the forest fringe in ever-growing throngs, pushing deeper into the forest year by year. Behind him come more multitudes of displaced peasants” (Myers, 1992 : 444).

By contrast with the shifting cultivator of tradition, who made sustainable use of forest ecosystems, the “shifted cultivator” is unable to allow the forest any chance to restore itself. Whether practised by shifted or by shifting cultivators, the most important cause of deforestation in Madagascar is land use conversion for agriculture. Neither their ecological impacts nor popular perceptions do warrant the distinction by recent environmentalist discourses between “traditional” benign and “modern” harmful agricultural patterns. Embedded in local customs and tradition, slash-and-burn agriculture in the Eastern rainforest is known as *tavy*. The term refers specifically to upland cultivation of rice in areas recently burned and cleared of vegetation. High rainfall, combined with price distortions and limited infrastructure, makes *tavy* more suitable for peasants than many farming alternatives (at least in a relatively short time horizon). Given that forest lands are still available, labor is the most important cost. *Tavy* requires relatively little labour input (from 80 to 105 days per year), it serves to meet the farmer’s most important subsistence need at a lower cost than purchasing rice in the markets, and requires only the most basic tools. Irrigated rice systems require twice as much time in labour annually (Keck, Sharma & Feder, 1994 : 13).

A long forest-fallow system can be sustained only up to a density of four persons per square kilometer. It relies on plots for one of two years of production followed by twenty to twenty-five years in fallow, sufficient time for forests to regrow. When population density makes it impossible to maintain this fallow length, different patterns of cultivation such as bush-fallow, short fallow or annual cultivation arise (depending on a combination of factors related to demography, tools used, market access etc.). Forests “degrade” into bush savanna or are converted into “agro-forest gardens”<sup>iv</sup>. Land-use conversion for agriculture is hardly more sustainable in the other regions of the country receiving less than half the rainfall of the Eastern fringe. Moreover, almost all areas in the West, North, and East of the country receive poor migrants from the South.

Madagascar’s population of 15 million at the beginning of 2000, has doubled since 1975 and will double again by 2025. In 1999, 71 percent of the population was living in rural areas and the agricultural sector is responsible for 80 percent of export earnings and employs approximately 85 percent of the population. Peasant farmers with only 1 or 2 hectare plots (associating subsistence and market produce) account for about 80 percent of total agricultural output. Rice is the primary staple crop in Madagascar while export crops vary according to

geographical regions (coffee, cloves, vanilla etc.). Peasant cultivators in Madagascar use very low levels of inputs and rely almost entirely on very simple hand tools such as spades and machetes. As the population continues to grow at rates exceeding 2.5 percent annually, open land is increasingly scarce, thus forcing people to clear forests. It is estimated that corrective actions continue to be as ineffective as they have been, the remaining primary forests with its unparalleled species endemism will disappear within twenty years.

The development community perceives the country as facing a growing crisis in terms of the protection and productivity of its natural resource base and recent political events are not likely to reverse the trend. Under given economic conditions, the limited enforcement capacity over public land anywhere in Madagascar acts as an incentive for individuals to excessively use tropical forests and their “mega-biodiversity” for agriculture and other economic concerns which interact locally with small-scale rice cultivation for subsistence. The vast majority of rural dwellers and many local forest officials in Madagascar however do not view themselves and “their problem” as being trapped in social disorder or an imminent ecological crisis. For them preserving the variety of genes, species and ecosystems is a rather pointless exercise while it prevents fellow citizens from cultivating their daily rice.

## **V - Consequences of Legal Pluralism**

The failure of sustainable resource management systems at the village level, viewed as the special case by CPR theory, together with the Forest service’s limited enforcement capacity over public lands, does not imply that forests are “open access” in the way the conventional theory assumed, that is in the sense of empty space or a tabula rasa upon which policymakers should impose a set of rules. The assumption that traditional property rights systems governing land use and access have degenerated to a point where land conflicts and insecurity are widespread is false. In fact, the customary rules provide tenure security to peasants who continuously cultivate tracts of public land, and the planting of certain tree crops such as coffee and cocoa secures tenure without title even for plots which are not under annual cultivation. But the contrary assumption that these customary rules constitute long-enduring self-governing management systems of forest commons is equally false. Fallow periods under the *tavy* system have become shorter than ecologically desirable. Peasants have access to public lands but these lands are not properly regulated and controlled by the state. According to both traditional and contemporary agricultural patterns, no clearly delimited “common lands” falling under anything close to Ostrom’s seven “design principles” exist as a distinct category within the whole bundle of interdependent and more or less individualised access and use rights<sup>v</sup>.

Let us look at how access to land and its use are regulated by a settler community of both migrant and local origin in the Sambirano Valley of North-western Madagascar. Since the 1970’s, the members of this community have been clearing forest lands at the margin of a protected area (Manongarivo Special Reserve), with some of the settlers moving the forest frontier beyond the limits of the biodiversity reserve during the 1990’s. Generally in Madagascar, customary land use rights are guided by the principle whereby the first individual to clear and use land becomes the owner (Rarijaona, 1967). The rights associated with this customary principle are bestowed upon the entire kin group of the individual so that family members acquire their land as an inheritance. But the individualised rights of both the first clearer and his kin group are under control of collective action within the larger community. While the rights associated with first clearing are respected, land is typically allocated in a hierarchical manner with the founding families of a village having priority in selecting parcels to cultivate. Other village members then have relative priority in selecting land based upon the length of ancestry of each kin group in the larger community. This “privilege of the first settler” is indeed an analogical transfer of the “privilege of first clearing” to a higher level of organisation (Muttenger & Ranjatson, 2001).

Although unexploited forest lands are available on the frontier, the presence of earlier settlers makes it unlikely that an individual, particularly an outsider, will simply seize a parcel of land. If an individual is new to the area and seeks a parcel of land for cultivation, a request must be made to be given the land. The process of acquiring that land then depends upon the individual's relationship to other villagers. If he has family ties in the community but wants to cultivate land belonging to an unrelated villager, then the entire kin group of the latter must agree to accept or refuse the request. In most cases, the request is approved because of the notion of a friendly brotherhood among non-parents (*fihavanana*). When he is unrelated to any village member, a request for land has to be approved by the larger community. Again, the request is typically approved. In both cases, the land is given, not sold, although initial or periodical in-kind payments to acquire use rights, in terms of a lease or sharecropping arrangement. Formal sale of land is impossible since it would require a title or some other form of public recognition of occupation, any of which are of course unavailable for lands inside a protected area, at least in principle.

Given that the occupation of land inside a protected area is an illegal act, the pioneer settlers have adopted several strategies helping them to reduce the uncertainty arising from their irregular situation. One of these strategies is to keep as much land as possible under cultivation by either working it themselves or lending it to recent migrants. The reason behind this can be found in the rules concerning land use in forest areas which were established in Ordinance 60-127 in 1960. In that ordinance, the government recognised the significant negative impact of *tavy* and categorized forest lands into zones where *tavy* was prohibited or permitted. The 1960 legislation was developmentalist and less restrictive than the previous (colonial) law. Prior to 1960, the forest code specified that it was strictly forbidden to set fire to virgin forests with intent to establish agricultural fields. According to the 1960 ordinance which is still in force, all forest lands not included in a list of protected zones (including of course national parks or special reserves) are available for clearing but require the authorisation of a forestry agent.

Authorisations are valid from one year of issuance date and can be issued individually or to a rural collective (*fokontany*) that has no land and to the extent necessary to satisfy their subsistence needs. Authorisations are granted on flat lands or on the lowest third of a hill, when the slope is less than 50 percent. To process requests more rapidly, legislation of 1987 made the fokontany president responsible for verification of all information presented in a request, rather than require verification by forest agents. In administrative practice, the forest service and village presidents do apply these rules even on lands where any kind of human activity is forbidden such as protected areas. To demonstrate their subsistence needs to local authorities, settlers keep as much land as possible under cultivation. The limits of the Manongarivo special reserve had indeed been set further away from the villages once during a field visit of the forest service in the 1970's.

Another strategy used by settlers to secure their relations with the state authorities has been to "officialise" the illegal settlements by having them recognised as sub-units of local government. Although legally void, these so-called "cantons" work in practice exactly like the ordinary fokontany, with a "president" recruited among the settlers and appointed by elected officials of the nearest local government unit. It was not until a recent repressive campaign due to ANGAP's return to a strict conservation policy that these strategies failed to work out. In 1998 around thirty individuals from the area were arrested by the judicial police and sentenced by the Ambanja district court for having used fire to clear new areas in the special reserve. The punishment was two years of work for the government in the local prison camp (Muttenger & Ranjatson, 2001). Such is, in a nutshell, the logic behind the tragedy of the "shifted cultivator" of Madagascar. What then characterises the intermediary institutions who link him to an emergent international biodiversity regime ?

On the basis of the case materials presented, we can distinguish three normative ideologies for co-operation of rulers and ruled in local government. First, there is the normative ideology of coercion based on differential access to the State apparatus and bureaucratic law. It establishes a clear division between the governing whose role is to apply rules of timeless transcendental validity, and the governed whose role is to comply with these rules. Second, there is the normative ideology of productivism which also goes back to the precolonial State formations based on irrigated rice cultivation in some variant of the “hydraulic kingdom” or “asiatic mode of production”. In more recent times, the developmentalist postcolonial regimes used the ideology of productivism to justify clearing of forest lands by the rural population in terms of national development. Third, there is the normative ideology of kinship or “friendly brotherhood” among those who live side by side in a given residential area. This notion of community makes it possible to come to an “understanding” with the local officials, as shown by the examples of irregular authorisations for clearing and of irregular administrative recognition of the illegal settlements.

It is important to note that the three normative ideologies coexist simultaneously and are made use of according to the constraints and requirements of a given context of interaction. Each of the three ideologies is constitutive of corresponding role identities of agents co-operating in “semi-autonomous social fields” which can generate rules, customs and symbols internally but which are also vulnerable to rules and decisions and other forces emanating from the larger world by which they are surrounded. “The semi-autonomous social field has rule-making capacities, and the means to induce or coerce compliance ; but it is simultaneously set in a larger social matrix which can, and does, affect and invade it, sometimes at the invitation of persons inside it, sometimes at its own instance” (Moore, 1973: 720).

Multiple membership in different semi-autonomous social fields implies for agents to select strategically among normative identities and cognitive scripts to successfully argue a case. Scripts are classificatory schemes, cognitive models that filter perceptions and suggest appropriate behaviour. Scripts might or might not be followed ; they can be deeply constraining or invitations to hypocrisy. From this perspective, it is the normative identities rather than the norms themselves which influence action. Individuals, or groups of individuals, are often unsure of what they should do. Actors scan the environment for appropriate role models (Krasner, 1999 : 63). Already during the 1970’s legal anthropologists had argued that the social sciences were ill served by a conformity-deviance model of the place of legal rules in societies, as if there were single sets of rules, clearly defined, totally discrete, and without contradictions or ambiguities. “The social reality is a peculiar mix of action congruent with rules (and there may be numerous conflicting or competing rule-orders) and other action that is choice-making, discretionary, manipulative” (Moore, 1978: 3). According to S. F. Moore, the choices and manipulations are not only made by the litigants in dispute situations, they are also made by the authorities who decide what the outcome shall be, and who make reference to norms and normative ideologies in other contexts. The place of moralising statements by authorities and leaders is an issue as important to the analysis of the relationship between legal rules and behaviour as is the understanding of litigant manipulations. The organisation of authority and its relation to the representation of normative ideas is a major piece of the framing, presentation, and implementation (or non-implementation) of law (Moore, 2001: 8).

## **VI - Conclusion**

The legal anthropology of local government has produced results that are of equal importance for international relations theory. Both interest and power based theories of international regimes are driven by a logic of consequences : institutions are held to reflect the choices of actors attempting to maximise their utility. In contrast, an approach based on cognitive scripts suggests that actors are driven by a logic of appropriateness rather than a logic of



consequences. Institutions are omnipresent, multiple and possibly contradicting each other. They do not reflect but they preexist the choices of actors. Actors choose among a range of available scripts, trying to match their objectives to an appropriate regime, that is to already existing sets of principles, norms, rules and procedures which fit their choices. A theoretical approach based on cognitive scripts offer insights into why international principles and norms could be durable and resilient while not being highly effective. From a cognitive perspective, decoupling, in which behaviour is inconsistent with a particular script, or set of rules and norms, can arise for several reasons.

First, it may not be clear which of several scripts is most appropriate in a given context. When regulating access to forest resources in Madagascar's domestic legal framework, should rulers follow the script of non-intervention associated with Westphalian sovereignty and opt for "productivism"? Or should rulers opt for "coercion", according to the script of biodiversity conservation suggested by international institutions in a context of legal sovereignty<sup>vi</sup>? Neither the neorealist concept of "hegemonic stability" nor the neomarxist concept of socialisation within a "world system" can resolve this puzzle. Both fail to understand the international institution of sovereignty. Neorealism is interested in sociological sovereignty, in why, how and to what extent weak rulers allow external intervention, but it fails to understand the legal aspect of sovereignty: rulers allow intervention while pretending not to do so. In contrast, neomarxism is well aware that the "freedom" of legal sovereignty is merely formal. But it fails to understand the sociological aspect of sovereignty: hegemons cannot enforce promises made by weak rulers under a regime of legal sovereignty.

Second, the impossibility to enforce promises of Third World elites to stop deforestation acts as an invitation for free-riding. When economic and political pressures by hegemons such as policy-based lending are insufficient to avoid free-riding, hegemons may consider the use of educational and civilising missions carried out by professionals of international or nongovernmental organisations. The mission of these professionals is not, of course, to teach the gospel but to spread the message of sustainable and long-enduring "common pool resource management". Epistemic communities do not primarily serve the purpose of cleverness of institutional design, as neoliberal theories have argued. They give a content to the pressures made by hegemons upon weak rulers to accept external intervention while pretending not to do so. They provide weak rulers with scripts. But what convinces these rulers to change domestic environmental policy is not a "collective learning process" but sustained economic and political coercion. As mentioned earlier in this paper, sociological intervention under a regime of legal sovereignty is not specific to the issue-area of biodiversity but runs across all sectors in the (ineffective) form of policy-based lending and authoritative aid co-ordination.

Third, under the guidance of international and nongovernmental organisations, actors may follow cognitive scripts that are not well suited to their own circumstances. Third World states adopt scripts that have been developed in more highly industrialised areas, although they do not have the resources to implement them. They may legislate provisions which regulate the access to forest resources but not have the revenues to pay a State forest service who can actually control these provisions. The identities of agents and the circumstances in which they operate are incongruent, talk and action are decoupled (Krasner, 1999 : 65).

The decoupling between scripts and behaviour, or the switching from one script to another according to circumstance is a commons state of affairs. To secure resources from the external world, any organisation must honor externally legitimated norms and at the same time efficiently deliver services to its constituents. The requirements of internal efficiency may, however, be inconsistent with external constraints (Brunsson, 1989). Ideally agents would prefer to decouple logics of appropriateness — the use of coercion to preserve biodiversity — from logics of consequences — a productivist ethos to satisfy rural constituents — in ways that avoid

painful contradictions, but this might not be possible. Talk and action may go in different directions. An organisation might adopt a new organizational chart — a forest policy reform package — in response to external constraints, but actual coordination within the organisation would be accomplished through informal means — through an ideology of friendly brotherhood among rulers and ruled. Behaviour is detached from rituals which are used only for external display.

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<sup>i</sup> Workshops of Mantasoa, 1994 (local governance); Mahajunga, 1994 (human inhabitation of protected areas); Antsirabe, 1995 (local community management).

<sup>ii</sup> For an evaluation of decentralised management for years after specific legislation was adopted see Maldié (2000).

<sup>iii</sup> Section 2 of Bill 96-025 and Decree 2000-028 on environmental mediators.

<sup>iv</sup> The scientific perception of land-use conversion for agriculture varies according to the observer’s values and preconceptions.

<sup>v</sup> According to Le Roy (2001), these rights can be categorised in a double matrix according to the types of use (the rights and obligations associated with a given use) and the types of control (number of groups involved in the control of these rights and

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obligations).

<sup>vi</sup> Legal sovereignty is understood here as willed, self-imposed restriction of sociological sovereignty.