



Can “Fragile States” decide to reduce their deforestation? The inappropriate use of the theory of incentives with respect to the REDD mechanism

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Abstract:

The originality of the REDD proposal is its incentives-based mechanism designed to reward the governments of developing countries for their performance in reducing deforestation as measured against a baseline. This mechanism is founded on the hypothesis that developing countries ‘pay’ an opportunity cost to conserve their forests and would prefer other choices and convert their wooden lands to other uses. The basic idea is, therefore, to pay rents to these countries to compensate for the anticipated foregone revenues. The reference to the theory of incentives (in its principal-agent version) is implicit but clear. In this REDD-related framework, the Government is taken as any economic agent who behaves rationally i.e. taking decisions after comparing the relative prices associated to various alternatives, then deciding to take action and implementing effective measures to tackle deforestation and shift the nation-wide development path.

Such an approach ignores the political economy of the state, especially when dealing with “fragile” or even “failing” states facing severe but chronic institutional crises, which are often ruled by “governments with private agendas” fuelling corruption. Two assumptions underlying the REDD proposal are particularly critical: (i) the idea that the government of such a state is in a position to *make a decision* to shift its development pathway on the basis of a cost-benefit analysis that anticipates financial rewards, (ii) the idea that, once such a decision has been made, the “fragile” state is capable, thanks to the financial rewards, to *implement and enforce the appropriate policies and measures* which could translate into deforestation reduction.

The first sections of the article discuss the pertinence of applying such a REDD version of the theory of incentives to Governments, and particularly to Governments in fragile states, with respect to the historical patterns and the practical way those states work. The last sections discuss the possibility of alternative architecture for REDD, focusing on policies and measures targeting the drivers of deforestation, and investments for intensifying agriculture, reforming land tenure and enhancing the functioning of the judicial system. We will show why incentives mechanisms should be used at another scale, for the benefits of local economic agents (companies, rural households, communities, etc.), and how a scaling down is likely to alleviate some of the constraints faced by incentives when dealing at Government level.

Keywords: REDD, Fragile States, Failed States, Incentives, Principal-Agent model, Deforestation.

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1. Introduction

The originality of REDD (Reducing Emissions from Deforestation and Degradation) is that it is an incentive since the essence of the proposal is to reward states for what they achieve in the fight against deforestation. Offered for the first time in 2005 by a group of developing countries led by Papua New Guinea and Costa Rica, and mentioned at the 13th Conference of the Parties (CoP 13) of the UN Framework Convention on Climate Change in Bali in 2007, REDD is now a priority on the international agenda on climate. The mechanism, which was confirmed in Cancun (CoP 16), is based on the observation that developing countries have an opportunity cost if they decide to preserve their forests rather than convert them to other land uses. The aim is thus to provide benefits to countries with high opportunity costs when they reduce deforestation and conserve forests. The reference to the theory of incentives (i.e. the Principal-Agent model) is implicit. The state is supposed to behave as any economic agent; it is supposed to take rational decisions by comparing the relative prices of available alternatives, then to act by taking effective measures to reduce deforestation and alter its development path. As payments are supposed to be based on “performance” (in reducing deforestation), it leaves the choice of the means to be used in the hands of the recipient governments. REDD payments are only conditioned by the verified reduction of deforestation and degradation achieved against a baseline. In that sense, REDD differs from a generation of public foreign aid in which releases were conditioned by the adoption of policy measures and changes in the legal / institutional framework, that often was hardly negotiated with governments that could be reluctant to accept changes that hit vested interests³. This specific characteristic of REDD is opposed to foreign aid being disbursed on the basis of “conditionalities” chosen by the aid provider; REDD is described as “*not encroaching on the sovereign discretion of nations to design acceptable and adequate policies and measures nationally*” (Streck, 2010: 389).

Whether payments come as money from a global fund, or from the market in the form of saleable “carbon credits”, this “performance-based” approach disregards the political economy of a state where the mechanisms of governance are undermined, especially when the state is “fragile”, has “failed” and/or is undergoing a profound institutional crisis. Two implicit assumptions are particularly sensitive: (i) the belief that such states would be able to make the decision to change their development trajectory on the basis of long-term cost-benefit calculations including a financial incentive, (ii) the belief that once a decision is made, the payment of annuities (carbon credits for REDD) would enable a state in crisis to implement appropriate measures to reduce or stop deforestation.

The purpose of this paper is to critically analyze the use of the incentive theory applied to “fragile” states (the underlying concept of the REDD mechanism) in the light of historical trajectories and of the actual functioning of a number of states currently facing institutional crises and home to the majority of remaining tropical forests. Some lessons learned from official development aid are used to illustrate our critical analysis. We then discuss the possibility of using the incentive system at another level, that of local economic agents (enterprises, rural households, communities etc.) and describe how such a change in scale could remove some of the constraints facing these states, but also how a number of other constraints could appear.

2. Uncertain definitions: from “Failed” to “Fragile” states

³ Cameroon’s forestry reform processes, partly driven by World Bank “conditionalities”, provided an illustration of such a situation, as related by Topa et al. (2009).

Until the end of the 1990s, many diplomats favored military intervention in countries considered as instable and hence a threat to global security. A certain vocabulary was used to support such as strategy: such states were described as “weak”, “failed”, “collapsed”, and “failed”, among other qualifications (Jackson, 1990; Helman and Ratner, 1992; Zartman, 1995). After 9/11, the single option “security first” has been called into question, and the need to take socio-economic parameters into account before intervening in countries undergoing severe institutional crisis has been recognized.

International organizations responsible for official development assistance are now giving increasing importance to a global approach integrating security, development and human rights (UN, 2005). This new approach is the fruit of a process that was started in 2005 by the UN, multilateral (World Bank, OECD) and bilateral organizations (DFID, USAID), which strengthened the use of the expression “fragile”, now widely used. The term “fragile states” has gradually replaced earlier concepts, such as failing or failed states. Within less than five years, this concept (less radical than the previous ones) has become the cornerstone of the intervention strategies of major aid-oriented international organizations.

The debate on the definition of this concept is thus still open. This might explain why the different ratings that have been published by the World Bank, the CIA, OECD or DFID are not consensual, although failures of the rule of law, weak judiciary systems and limited government reach are commonly mentioned, along with economic dysfunction and vulnerability to conflicts. Michailof (2010), who uses the term “failed states”, emphasizes serious shortcomings of public services: “*social capital has been seriously eroded*” (p. 214).

As for the characteristics of fragile states directly relevant for forest-related policies, Irland (2008) includes, *inter alia*, “[a]ll forms of law enforcement are undermined”, “[i]ncapacity to implement even rudimentary harvest limits, silvicultural prescriptions, or Park protections”, also pointing out the fact that “[g]overnments are unable to deliver on commitments made under international agreements or Conventions that relate to natural resource management” (p. 206).

For the purpose of our argumentation, we would essentially refer to the OECD/DAC (2007: 29) definition which characterizes fragile states as those countries where there is a “*lack of political will and/or capacity to provide the basic functions needed for poverty reduction, development and to safeguard the security and human rights of their populations*”. Such a definition emphasizes the two issues we want to address: the will and the capacity to implement public policies that would tackle vested interests for changing the existing trends favoring deforestation.

3. The analytical framework of the theory of incentives

By “incentives”, we refer to the any action of an economic agent (which can be the Government) leading some other agents to adopt a given behavior. The theory of incentives is quite simple. Because it includes specialized tasks, economic activity requires delegation of some of the tasks, an arrangement in which an agent – whom the theory calls “the principal”, delegates a specific task to another agent, for which the agent is paid. Within this framework, it is assumed the agents are pursuing their own interests and do not share the same set of preferences (“objective function”) – in other words, their interests may diverge. The issue is that the principal does not dispose of complete information about the agent to whom he/she

has delegated the task, and the agent – chosen for his/her specific skills - has access to private information. Two situations can arise: either the agent can act out of the sight of the principal (moral hazard or dissimulated action), or the agent can profit from private information concerning his/her own costs or concerning values of things that are unknown to the principal (adverse selection). Laffont and Martimort (2001) report on another information issue raised in the literature: non-verifiability, which occurs when the agent and the principal share *ex-post* the very same information, but disagree on its meaning, with no third party, especially a judge, to arbitrate.

In this theoretical framework, reducing the asymmetry of information related to the strategic behavior of agents generates costs, which can be viewed as a category of transaction costs, as stated by Williamson (1985). What kind of institutional arrangements could reduce the problem of the asymmetry of information and the risks of inefficiency (due to transaction costs) associated with information retrieval? In other words, how can we create a remuneration system that encourages the agent to act as expected? In the game theory, it involves changing the rules of the game so that the self-interested rational choices of the agent coincide with the desires of the principal. To achieve such a goal, the principal generally has little choice but to pay an *information rent* to the agent, which exceeds the actual cost of the task for this agent⁴.

Can such a theoretical framework help us to understand the way REDD is supposed to work? One might assume that the proposal that was first called “compensated reductions” (Santilli et al., 2003) and then became “REDD +” was inspired by the theory of incentives. Indeed, using the theory, one can “tell the story” as follows:

- Northern industrialized countries would like to see an overall reduction in deforestation, which mainly affects tropical forests.
- Developing countries are assumed to be capable of influencing the levels of deforestation, but have opportunity costs in reducing these levels.
- Northern countries (the Principal) propose an institutional arrangement to Southern countries (the Agents) to offset the opportunity costs associated with a reduction in deforestation, by allowing Southern countries to sell carbon credits for greenhouse gas effects on the market or by rewarding such reductions via an international fund backed by the Principal.
- The Principal does not know the exact costs and benefits of reducing deforestation for the Agents.
- The proposed arrangement thus opens the way for agents to be paid even if the reduction of deforestation occurs at zero opportunity cost (particularly if deforestation decreases for exogenous reasons).
- Northern countries are therefore about to pay some information rent to Southern countries to provide incentives to reduce deforestation, i.e. to pay them in varying but unknown proportions over and above their opportunity cost (the actual cost to the agents of reducing deforestation). Information rents are at stake in baseline scenario construction, as we will see in the section about Guyana.

This way of telling the story is valid for a centralized architecture: you reward a country for its “performance” in reducing deforestation (whether REDD is to be market based or not). It would be easy to adapt this narrative to a decentralized architecture for REDD under which

⁴ As put by Laffont and Martimort (2001) “*In order to reach an efficient use of economic resources, [the] contract must elicit the agent's private information. This can only be done by giving up some information rent to the privately informed agent. Generally, this rent is costly to the principal*”, p. 38.

rewards for “REDD projects” would be given based on their performance at local level. However, for the remainder of this discussion, we use the original hypothesis of payments at national level.

3.1. Incentivizing the (fragile) state?

This brief description of the theory of incentives is sufficient to identify some inherent weaknesses in the design of REDD as a system of incentives. According to the theory, the Principal can be the state, – and the literature is full of illustrations along those lines – but there are no examples of the agent being another state. Can a state be regarded as an economic objective function with a single set of preferences, able to adjust its behavior on the basis of incentives? Reducing the state to a single objective function raises a number of problems. An economic agent is expected to have an ordered set of preferences (the agent can be classified hierarchically according to its utility) and make decisions based on a calculation of value. There is no need to adopt the theory of “polyarchy” by Dahl (1971) to understand that any state is subject to conflicts of interest between government departments and public agencies, a situation that is exacerbated in countries where the state does not have sufficient autonomy (according to Weber’s definition) to impose solutions of general interest on the different competing parties. In the specific case of sub-Saharan Africa, it is “*impossible to separate economics from politics, especially the general public or the private*” (Hibou, 1998). For Chabal and Daloz (1999), there is no real state in sub-Saharan Africa; these authors point to the absence of an autonomous and relatively impartial state vis-à-vis the society. Bayart (1989), on the other hand, does not deny the reality of the state, but emphasizes the fact it is manipulated by vested interests, networks that consider the state to be a resource to be controlled to ensure the private accumulation of wealth and its limited redistribution among a small number of networks.

Moreover, public policies are characterized by legacies to be managed, and a high level of path-dependence vis-à-vis previous choices that prohibit “autonomy” of public decision similar to that envisaged for the economic agents referred to by the theory, agents who are capable of comparing relative prices and making decisions accordingly. It is difficult to believe that Brazil (which is not a fragile state) could suddenly break with its development model, which is based on the development of agro-exports which, in turn, are based on national capitalism; it is also unlikely that Indonesia (a state more fragile than Brazil) would be able to enforce a forest law in provinces that have been empowered since the late 1990s; it is also unlikely that the Democratic Republic of Congo (the archetype of a fragile state) and other countries in the Congo Basin (or in South-East Asia) would give up state ownership of forests that allow governments to enjoy monetary and political benefits through the allocation of forest concessions and lands.

3.2 The issue of land tenure and the public preference for the status quo

Actions that could be taken to limit deforestation are generally known. Many concern the clarification of land rights. Most of the aforementioned countries are characterized by a legal duality, where “modern” land legislation allows only for public or private ownership, without room for local tenure arrangements, whether customary or hybrid. Private titled property still plays a marginal role in the countryside. Augustinus and Deininger (2005) explained that “*In many countries, less than 1% of the country is covered by land titles and a cadastral system. In most of the developing world, including in South America, most countries have less than 30% coverage*”. This is paradoxical since most economists continue to point to the collective

benefits of clear and secure property rights: a decrease in land disputes and social costs, investments in improving long-term soil productivity, guaranteed access to credit, and more. What, then, caused such a situation? In a critical study of the neo-institutionalist approach⁵ to land tenure evolution, Platteau (1993) commented that this theory was a new but more sophisticated version of the evolutionary scheme of the 19th century. In that scheme, societies were thought to go through the very same stages before widespread private ownership was achieved. Platteau discussed the gap between what the theory predicted and the reality in various developing countries (especially in Africa), and concluded, against the new institutionalism theory, that it is not sufficient that an institution (in this case, the individual private property) be “historically necessary” to ensure that it appears. Platteau finally suggested that most African states have preferred to maintain a dual system of private ownership and customary systems because of the potential social costs of attempting to generalize private property and the “non-confrontational and patronage” choices that characterize their governance. Analyzing the very small number of land titles established in Gabon since the beginning of the 20th century, Comby (1998) felt that this was the result of a deliberate government policy to retain power over land allocation.

Such an analysis is particularly problematic as it implies that a state would be able to choose a policy of breaking with the past simply because of the collective benefits provided by the reform. The extreme difficulty with which registered private ownership is progressing, particularly in sub-Saharan Africa, shows that other decision (or non-decision) mechanisms are more powerful than a hypothetical deliberative “Habermasian” process that would take place at the heart of government. If one accepts the hypothesis of governments having their own private agendas (Laffont, 2000) – which is the economist’s version of “neo-patrimonialism” (Médard, 1991) or the “politics of the belly” (Bayart, 1989) – one can easily understand that the various individual officials tend to take decisions that put their own interests and their countries’ short-term interests first, especially in states with a failing judiciary, an inoperative institutionalized counter-powers (Court of Audit, inspection bodies, etc.) and a culture of widespread impunity.

Paradoxically, the “democratization” and “decentralization” that have marked changes in the last 20 years in countries of the South may have contributed to further complicating the decision-making process at the national level. National parliaments are more or less openly relaying the position of some economic pressure groups, and parliamentarians have become much more sensitive to the problem of maintaining jobs in their constituencies, especially when the need to increase revenue for central government leads to the elimination of a number of activities that generate revenue and employment in forested areas. One example is the 1994 Forest Law in Cameroon: the Government’s original plan was modified by parliamentarians who made a clear choice in favor of job creation (with the added option of strong protection for the wood processing industry) in opposition to the government’s choice, which was to give priority to tax revenue (mainly through auction mechanisms for the distribution rights) (Topa *et al.*, 2009). In short, they chose potential revenue from employment rather than a more balanced state budget.

⁵ We refer to a school of developmental thinking that explains that the history and functions of a wide range of institutions are shaped by internal constraints, such as reduction of transaction costs. See for instance North (1990).

4. Implementation challenges

The assimilation of a government to an economic agent appears to be problematic in light of the theory of incentives. There is a second assumption underlying the “REDD proposal”, that of a governmental ability to voluntarily (because encouraged to do so) reduce the levels of deforestation on its national territory. This assumption has become questionable since nation-states now have to deal with global liberalized markets and therefore have lost considerable leeway. Furthermore, the fact that many of the countries targeted by the proposed REDD are going through a period of crisis or can easily be labeled as “failing” (as in the case of the DRC⁶), the assumption becomes even more difficult to support.

Box 1: Lessons from Australia

Unbeknownst to most, the Kyoto Protocol provides Australia with special treatment, very similar to the principle of REDD. The special treatment was granted to persuade Australia to sign the protocol. Clause 3.7 (2), also known as the “Australian clause” allows the countries in Annex I (industrialized countries) which recorded net deforestation by 1990 (deforestation outweighing reforestation and natural regeneration) to take into account emissions related to deforestation in 1990 as a baseline and then to count the reduction in emissions related to reduced deforestation in the commitment period 2008-2012. Eight countries are covered by this clause, but only Australia benefits from it (Russia chose not to use it). As shown in an article by Macintosh (2010), this clause is a boon for Australia, whose emissions, if “avoided deforestation” had not been taken into account, would have increased by 26% between 1990 and 2007, while with this clause they increased by only 9%, i.e. only slightly more than the Kyoto target of 8%. Macintosh provides useful information for reflection on the ability of states to reduce deforestation. He indicates that in 1990, deforestation was unusually high because of the conjunction of a number of factors (rainfall favorable to agriculture and thus to forest conversion, high agricultural prices) that have not occurred again since. The Australian government insisted that the 1990 level was taken as the reference scenario (baseline) knowing it had little chance of reproducing it – and indeed, deforestation decreased substantially in subsequent years.

Macintosh said that the initiatives taken by governments (federal and state) would reduce deforestation only by a “negligible” amount: *“Like many of the state programs, the Australian Government’s regulatory and non-regulatory initiatives since 1997 have struggled to curb deforestation. There is limited data on the environmental effectiveness of the government’s information and “beneficiary pays” programs, but what are available suggest that the impact on deforestation has been negligible. This is probably due to relative under-investment in deforestation control, lack of capacity in regional and rural areas, and poor design and administration”*. The Australian government's projections for the future of deforestation in Australia have proved to be very inaccurate, and policy measures taken by the government to reduce deforestation have been largely ineffective, although recent progress, i.e. reductions actually attributable to measures taken and not to circumstances, can be observed. Macintosh concludes: *“The difficulty that Australia has experienced in controlling deforestation should serve as a warning about the potential obstacles that stand in the way of an environmentally effective international REDD scheme. If a country like Australia finds it hard to halt*

⁶ Like many other forested tropical countries, the Democratic Republic of Congo (DRC) is a perfect example of a State in a situation of fragility and crisis. The DRC is the largest country in Central Africa and is home to the world’s second largest tropical forest in the world after the Amazon, i.e. 99 million hectares of humid closed forests that cover 67% of the country.

deforestation, what is the outlook for developing countries with less advanced institutional, governance, monitoring and economic systems?" (p. 20).

4.1. Highlights from Indonesia and DRC

In Indonesia, after the economic crisis of 1997-98, the post-Suharto government, which was worried about national unity, chose to give the provinces and districts considerable autonomy in managing natural resources, and allow them to retain the bulk of the tax revenue (Pradnja-Resosudarmo, 2004). The outcome in terms of forest management has been disastrous: subsequent attempts to recentralize – notably the rights to allocate concessions - have not succeeded, leading to conflicting regulations, and confusing situations that many players exploit (McCarthy, 2004). In DRC, a somewhat similar phenomenon is underway: the conflict between central government and provinces concerning who should receive tax revenue from the exploitation of natural resources (oil, mining, forestry, etc.) led to the creation of contradictory normative texts. Although the forestry and mining codes specify a pay-back of 40% to the provinces, the 2006 Constitution purports that the provinces must collect the taxes and eventually surrender its share to the state, while the 2008 Law of Free Administration of Provinces stipulates that the bulk of taxes collected must remain entirely at the local level. This makes it virtually impossible to draw up a clear and secure fiscal framework for economic agents, nor to implement public policies at the national level.

4.2. The narrow scope of the “REDD proposal”

In states in crisis, especially if the situation is post-conflict, militias or army units are often protected (this is the case of the renowned Virunga Park in DRC) or control the trafficking of natural resources. With the rising price of oil and mineral resources, new mines and oil fields are being opened in the forests. Under what conditions might governments decide to ignore such opportunities? If, as suggested by the literature on REDD, the principle is to compensate for potential revenue that would not materialize (opportunity cost), the choice of conservation may be financially prohibitive. This applies even for large industrial plantations, palm oil for example, that generate gross margins of several thousand dollars per hectare. Persson and Azar (2010) conclude that in the event of a system backed by the carbon market, it is very unlikely that the price of carbon would be high enough to prevent the conversion of a great deal of forest into oil palm plantations. As acknowledged by the McKinsey abatement cost curve for forestry (McKinsey & Company, 2009), the “REDD proposal” seems to be applicable only in the case of small and medium-scale farmers (and ranchers, in the Brazilian Amazon), whose opportunity costs are not too high. But small farmers are also voters, and, if REDD reduces their development opportunities, they may decide to join the rebels...

4.3. The risk of excluding communities?

Many analysts and NGOs worry that REDD would be nothing more than an instrument to protect the lucrative stocks of carbon that forests may represent in the future to the exclusion of the local people (Agrawal, 2010; Phelps et al., 2010). These fears are rooted in the turbulent history of the creation of protected areas in several developing countries (Cernea and Schmidt-Soltau, 2006) and the resulting forced exclusion of local populations.

Although such situations exist, excessive concern about the marginalization of populations appears to be unjustified in many countries where the capacity of the state is limited by varying crisis-linked situations (post-conflict, institutional instability, ethnic tensions, etc.).

Let us suppose that a fragile state's government decides to double the size of its national protected areas in order to prevent the conversion of the land to other uses. Such a measure may have an impact on forest concessionaires who export their wood to the international market, which is becoming increasingly demanding with respect to the legality and environmental conditions of production. But it is highly unlikely that this would discourage charcoal producers from entering these areas to cut wood. The same goes for farmers in search of land, for whom the government is unable to provide alternatives in terms of land availability. In Côte d'Ivoire, for some years, the SODEFOR, partly funded through French aid in the early 1990s, tried to "take back control" of gazetted forests that were being infiltrated by thousands of Ivorian *Baoulé* farmers and cocoa growers, but also farmers from Burkina Faso, Mali, etc. (Karsenty, 2006). Plans for resettlement were vague and completely unrealistic since it was already clear that there was practically no land available outside the gazetted forest, and that the government was unable to do anything about it. Such plans were designed only to comply with the donors' requirements, and no attempts were made to implement them.

In the absence of major changes in the agricultural sector, it is difficult to imagine how governments can prevent farmers from going into the forest to establish fields. And if by chance a government instructs its army or militia to forcibly remove recalcitrant settlers and farmers, the international community will not stand by passively. UN bodies and regulatory REDD institutions would most likely prevent the country from benefiting from REDD. The contemporary regime of tropical forests is so constituted that it cannot accommodate very long and brutal authoritarian practices vis-à-vis the communities and "indigenous peoples" who use the forests (Smouts, 2001; Humphreys, 2006).

5. Strategies of weak states: negotiating complacent rules rather than taking tough measures

The problem of corruption is one of the glaring difficulties underestimated by proponents of the "REDD proposal". Law enforcement – a measure that can be effective in reducing deforestation if the laws protect the forests – requires fighting corruption, failing which the interests of the rulers will not coincide with the collective interests of the citizens. It is, admittedly, difficult for rulers to "trade" corruption (with daily and personal benefits) for carbon credits (with far later and less personal benefits). Finally, the most rational attitude for a government with little concern for collective interest is, first, to negotiate the worst possible scenario in deforestation terms for setting the best possible reference (that is to say, which allows a high rate of deforestation) and, once this goal has been achieved ... to do nothing. Indeed, if the result of bargaining has been favorable, the government has no incentive to undertake costly financial and political measures, and may believe it will still be credited at the end of the engagement period with the favorable baseline scenario it negotiated (Karsenty and Pirard, 2008; Hansen et al., 2009).

5.1. The case of the Guyanan "economically-rational" deforestation baseline

The Government of Guyana has shown how this type of strategy could be realized. Although the deforestation rate is very low (for the ten-year period 2000-2009, the annual average deforestation rate was estimated at 0.03% by a Pöyry Forest Industries report)⁷, at the end of 2008, Guyana proposed a baseline scenario (developed by McKinsey and very significantly

⁷ www.regjeringen.no/guyana

entitled, “*Economically rational land-use scenario*”) for the conversion of 90% of its forests into industrial crops over the next 25 years (i.e. a deforestation rate of 4.3% per year) – in order to maximize its chances of being paid for less deforestation (Guyana, 2008). The opportunity cost of avoided deforestation (on the basis of this scenario) was estimated by McKinsey to be 580 million dollars per year. This “offer”, which many considered to be an ecological form of blackmail, had no takers, but Guyana has Norway's commitment to pay up to \$250 million for implementation of policies and measures to conserve forests, provided that the national deforestation rate does not exceed 0.275% per year – leaving the country some leeway given the current (lower) rate.

5.2. An “adjustment factor” for Congo Basin countries?

Congo Basin countries also chose to negotiate rules to maximize their chances of being paid without having to face difficult choices in the fight against deforestation. According to COMIFAC, the “adjustment factor” is presented as reflecting the development needs of these countries: it allows deforestation to increase, but retains the option to be paid if the actual level of deforestation remains below a scenario integrating this famous reference adjustment factor, as shown in the diagram below.

<<< INSERT FIGURE 1 HERE >>>

Currently, negotiators from Congo Basin countries are also pushing a complementary option: being rewarded for their “past efforts”, which have led to the current important forest cover rate enjoyed by those countries, possibly through payment for the stock of carbon in standing trees and also the corresponding CO₂ sink. Through this option, negotiators try to accredit the unrealistic vision of states being able to operate a “stop and go” lever for deforestation. Nor can it be attributed to their alleged “good governance”: a glance at the 2010 Transparency International index of corruption perception shows that all those countries have scores below 2.8 (out of 10) while Brazil is noted 3.7 and Costa Rica 5.3. Actually, the reason for such low rates of deforestation has little to do with governmental decisions of Congo Basin countries to conserve forests. The explanation is that these countries generally have low rural population densities (extremely low for Gabon and Congo-Brazzaville, two countries with virtually no farmers) and very poor road infrastructures. Furthermore, they have not been attractive for agribusiness foreign investors (in the 2010 World Bank’s “Doing Business” index, the 6 forested countries of the region⁸ are ranked in the last part of the list, the “better” performance being that of Gabon, which ranked 156 out of 183 countries). The low rate of deforestation so far, thus, has little to do with “past performances” or “early efforts” or any political will to protect forests against vested interests but rather with the “fragility” of the states – which includes uncertainties concerning land rights to the forests.

6. An alternative option: consolidating fragile states and addressing the structural causes of deforestation and degradation

Reducing or controlling deforestation in states in crisis that are described as “fragile” requires more than the vulgate of the incentive theory behind the REDD proposal. It also calls for a rethinking of the mechanism, changing its initial ambition to make it “performance based” (measured as reduced deforestation) so that it can be used as an investment instrument for funding policies on specific and ambitious programs able to tackle the major structural

⁸ Namely, Cameroon, Gabon, Congo-Brazzaville, Democratic Republic of Congo, Central African Republic, Equatorial Guinea

problems that underlie much of deforestation in such countries: agriculture, land, the means and the functioning of justice and of the administration of control. Even though such ambitions are part of the so-called “phase 2” of the phased REDD+ approach (Zarin et al., 2009) backed by public funding, this is seen as a transitional stage for swiftly reaching “phase 3”⁹ which is “based on performance”. The influential Meridian Institute report (written by prominent scholars in the REDD-debate field) tries insistently to reinsert this second stage into the original incentive framework of REDD and oppose traditional development aid with a striking “trade-not-aid” principle:

“Phase 2 funding must be designed and perceived to be distinct from, and additional to, traditional Official Development Assistance (ODA), and maintain a strong “trade-not-aid” ethos and a culture of transparency. Previous global initiatives to reduce deforestation have had very mixed results, due in part to a decoupling of payment from performance as measured by tangible progress” (Zarin et al., 2009: 5)

The emphasis put on “performance”, “trade-not-aid” and “phase 3” is noticeable. It is clear that the priority advocated by this report, and by most of the REDD literature, is not about triggering massive public investments on the three key issues we develop below.

6.1. Agriculture, land-tenure and governance: the three key issues

The establishment of new agricultural policies focused on the goal of sustainable, that is to say, ecological intensification (Griffon, 2010) is necessary (but not sufficient) to maintain forest areas in many countries of the South facing increased needs for food production. Implementing such policies requires a number of parallel programs: rural credit, training in new technical systems, crop storage, producer-oriented price stabilization mechanisms, and insurance against unforeseen risks. Secure land tenure for farmers is essential for two reasons: first it facilitates long-term investment and access to credit, and second, it gives effective rights to people in forest areas and thus makes it unnecessary to clear the forest to create *de facto* property rights on forest lands. The current situation in which most forests are reputed to be the “private domain of the state”, thus giving governments discretionary rights to allocate large parts of them to new users e.g., agribusiness investors, needs to be changed to ensure greater equity and to reduce large forest conversion opportunities for agribusiness. Payments for avoided deforestation could thus be proposed to small-scale holders and local communities, combined with programs for crop intensification.

The rehabilitation of the justice system is essential in order to apply deterrent sanctions. This involves finding ways to make judges “immune” to corruption. Mechanisms of checks-and-balance (Committee on Public Accounts, independent authorities for auditing, etc.) should participate in the construction and operation of the state so as to contain the effects of corruption (since they obviously cannot be eliminated). Forest services should be thoroughly reformed to include anti-corruption systems, and their numbers considerably increased. Such massive programs will come at a very high cost that the carbon market is not designed to support (it is clearly impossible to say how many tons of avoided greenhouse gas emissions would be attributable to these measures) and aid from the North may not be able to sustain over time (unless, perhaps, the emerging countries, starting with China, make a comparable effort). As suggested by Michailof (2010) among others, these programs will require fresh

⁹ “A relatively swift opportunity for transition from Phase 2 to a compliance instrument in Phase 3, which is based on quantified GHG emission reductions” (p. viii).

resources obtained through international taxation (of financial transactions or other assets) to fund what needs to be considered as international public goods: food security in the South, land security for farmers, reduction of deforestation, and the consolidation of fragile states and the reconstruction of failed states.

6.2. A case for conditionalities on the content of policies and measures, not on “performances”

The support for such reforms should be massive and sustained in the longer term. But this does not mean that the donors should ignore conditionalities applied to the measures and policy changes they want to see undertaken. In an article on the lessons of development assistance, Collier and Dollar (2004) explain:

“The most striking fact here is that in general policy is quite persistent. Large changes in policy are the exception, not the rule. Analytically, aid can be expected to have two opposing effects on the incentive for a government to reform. If aid is linked to reform there is some favourable substitution effect: if the government agrees to reforms it will receive more aid. Offsetting this effect is the income effect: the more aid the government expects to receive, the less necessary it is to implement those reforms which are politically costly” (Collier and Dollar, 2004).

Certainly, many would argue that some type of conditionalities prevent ownership of reforms by governments, and recall the difficulties faced by the World Bank to foster genuine reforms against vested interests during the Structural Adjustment Programs (SAP) times (Collier et al., 1997). One can however think that the bargaining imposition of reforms is especially related to the SAP period in the 1980s, when international organizations required states to reduce the number of officials, to privatize public services and to cut public spending. In a configuration where the aid is used to fund programs that directly benefit the country, such as increasing agricultural productivity, we can assume it will be easier for relief organizations to find allies among reformers in different layers of the state apparatus and civil society, fostering an appropriation that will, in any case, be needed to overcome the “private agendas” (Laffont, 2000) of some members of the government.

6.3. What room for payments for environmental services?

The same reasoning can be applied to payments for environmental services (PES) which appear to be essential tools in the fight against deforestation. In this case, applied to rural households and producer organizations, the theory of incentives can be helpful – while its validity proves to be quite challenging in the case of governments. Changing relative prices in favor of forestry or sustainable agroforestry uses is essential if we want to prevent conversion to agricultural or pastoral speculation on land where this is legally permissible. Well-thought “assets-building” PES can be instruments of change in relative prices, remunerating active contributions towards the maintenance of forest cover, and also a vehicle for financing the transformation of agricultural practices that would provide higher earnings to farmers. Such higher earnings are essential to the phasing out of “financial compensation” when agrarian alternative models reach maturity. This investment approach involves combining the use of PES with the integrated rural development programs mentioned above. But to be effective, the PES must retain their conditional dimension: payments should be strictly linked to the provision of the environmental services specified under the contract, e.g., reducing or stopping deforestation, undertaking forest conservation, and/or reforestation, etc.

7. Conclusion

We have tried to show why the theory of incentives underpinning the initial idea of the REDD is unlikely to deliver the expected positive outcomes in the case of “Fragile States”.

Governments of such nations are often dominated by “private agendas”, and will try to negotiate the most favorable rules for “capturing” REDD money, without having any intention to change the course of things. Even if they would behave differently, their intrinsic weakness would prevent them from achieving the in-depth reforms needed to tackle the drivers of deforestation.

But REDD can be designed in a different way. The basic principle, especially at government level, should not to give “rewards”, but rather to “invest” in new policies and reforms aimed to critical socio-economic transformations. The incentives, through PES schemes, should be targeted to those who are likely to respond to them: the economic agents in the field such as farmers, communities, enterprises, etc. This REDD architecture does not resemble the construct once envisaged in the international negotiations focused on curbing deforestation through incentives to governments and payments based “on performance”. It will not provide cheap and fast reductions, but seems to be the only one capable of addressing some of the structural causes of deforestation and degradation. Should it be implemented, it would not stop all deforestation – especially not that linked to the development of intensive cultivation, the opening of mines or oil fields, which need to be addressed at another scale and have to do with overall issues of growth and consumption patterns – but at least would curtail a significant part of deforestation linked to the development of small and medium-scale agriculture and ranching. In addition, it has the advantage of reconciling two major agendas: the fight against climate change and for food security. For that alone, it could attract wide political support and the approval of the governments and people of the least-developed countries.

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Figure 1: Possible crediting situation with an “adjustment factor”

