

GETTING READY! A STUDY OF NATIONAL GOVERNANCE STRUCTURES FOR REDD+

BY ARILD VATN AND PAUL VEDELD

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PREFACE

This report conducts a comparative study of different potential national governance structures – or architectures – for REDD. The role of such structures will be to channel resources from the international level to measures on the ground that have the capacity to reduce deforestation and forest degradation. The architectures will also involve systems for monitoring and verification of the results obtained. As REDD is yet mainly on the drawing table, the analysis is based on data from various existing systems for payments to local activities in the environmental/forest sector. Conclusions and recommendations are made on the basis of this information and knowledge of the specificities of REDD.

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SUMMARY

REDD – reduced emissions from deforestation and forest degradation – is a core issue under the ongoing climate negotiations. One aspect concerns what the REDD or REDD+ governance structures – both internationally and nationally – should look like. The aim of this report has been to undertake a comparative study of a selection of potential national governance structures for REDD+ in the host countries – i.e., developing countries in the tropics.

The analysis is based on institutional theory. According to this conjecture the choice of governance structure – i.e., the *type of actors* involved with their capacities and competencies and the *structures facilitating the interaction/coordination* between the actors – influences strongly on the formation and outcomes of REDD policies. This is due to their influences on the distribution of rights and responsibilities, the power reflected and the interests they serve, the production and dispersal of information, the costs of interaction (transaction costs), and the kind of motivations fostered.

The following governance structures or architectures have been evaluated:

- a) a market/project based architecture
- b) a system with national REDD+ funds outside existing national administrations
- c) a national REDD+ fund organized under the present national administration
- d) conditional budget support

It should be noted that other structures than the market based systems – like funds – may also be project oriented. The point here is that market solutions will typically be project based, while for e.g. funds, other options are also available.

As there is yet no experience with existing national REDD+ architectures, the analysis is based on existing knowledge about governance structures that are similar to the four mentioned above – i.e., experiences with the Clean Development Mechanism, various payments for environmental services projects, Conservation Trust Funds, national forest funds, and finally experiences with general budget support. Certainly, a full scale REDD+ also raises issues that none of the above cases cover. Hence, the analysis has demanded a deepening into the specificities of REDD+.

Four criteria have been defined as basis for the assessment of the above national REDD+ governance structures – i) overall political legitimacy; ii) effectiveness; iii) efficiency; and iv) capacity to deliver on co-benefits. Reducing deforestation is demanding. The idea behind REDD+ is that countries in the North should pay the South to reduce their deforestation. Looking at the governance structures that could facilitate this, the issue of political legitimacy is core. This concerns how acceptable the solution is for national authorities, civil society/local communities, donors and other international organizations engaged in REDD+. Legitimacy also concerns transparency and accountability, distribution of power and rents from REDD+. Effectiveness concerns in our context the capacity to raise funds and to deliver reduced deforestation. The latter involves the ability to avoid leakage, to ensure additionality and permanence, to coordinate actions across sectors, and to avoid corruption. Efficiency concerns the ability to deliver cost-efficient REDD+ results. This is an input-output measure, and includes both the direct costs of reducing deforestation and the transaction costs involved. Capacity to deliver on co-benefits

entails the capacity to address public goods such as reduced poverty and biodiversity preservation.

REDD+ is by many seen as a potential win-win-win policy – i.e., reduced carbon emissions and enhanced poverty alleviation and biodiversity conservation. It is not at all given that such a triple-win will be created despite substantial payments from the North. There are complex trade-offs between all the above goals and the analyses that form the basis of this report indicating that problems are especially challenging concerning poverty alleviation.

While our analysis is focused on national REDD+ architectures, one should note that the format of these structures will crucially depend on the choice of an international architecture. Principally, this structure could take the form of a compliance market or a fund. We have, moreover, distinguished between a fund that is based on voluntary payments and a fund that offers certified emission reductions (CERs). In the latter case, there is no basic difference between a compliance market and a fund concerning the attraction of resources. The latter solution offers, however, a wider set of opportunities for the formulation of national governance structures. Solutions c) and d) above would demand a fund solution at the international level.

Our analysis concludes that the market/project based solution as defined above is the weakest of the alternatives studied. We denote that it enjoys the neoliberal ideological support of substantial donor and development environments such as IMF, World Bank etc. The main appeal as emphasized in the literature lies in its capacity to attract private funding and in finding low-cost REDD+ solutions. If REDD+ resources are distributed through an international fund offering CERs, the above argument is not valid. That is, there may be some differences concerning private voluntary payments. The potential to find cost-effective REDD+ options is moreover an argument for this solution. We observe, however, that this does not compensate for weaknesses concerning political legitimacy, leakage, permanence, coordination across sectors, fairly high transaction costs, and an expected weak delivery on co-benefits. The latter concerns especially poverty alleviation as there are substantial conflicts between the low-cost carbon option and ensuring reduced poverty.

Moving to the other three options, all should have greater capacity to ensure co-benefits as it is easier to include separate programs or safeguards. When choosing between them, we find that the arguments for funds in the state administration and budgetary support are quite strong compared to those of separate national funds regarding dimensions like accountability/democratic processes, transaction costs, coordination across sectors, capacity to avoid leakage and also to ensure co-benefits. If REDD+ becomes sizable, it seems problematic to establish a system for combating deforestation and forest degradation that is fully separated from the state decision and administrative bodies. Moreover, REDD+ demands action beyond the forest sector – e.g. agriculture and energy production. Hence, action by other sectors and coordination with them becomes important, favoring these kinds of solutions.

A core argument for funds outside the state administration compared to national funds and budget support has been the capacity to attract private funding. This advantage is relevant only under certain assumptions about the international REDD+ architecture – see above. Hence, we find that its strengths rather lie in the capacity to set up systems that can avoid rigid bureaucratic

rules, and in the potential it may offer to keep corruption down. Certainly, in countries where corruption penetrates/pervades the state administration in particular, the latter may be a strong argument. Similarly, in a situation with a rigid bureaucracy, using the present administration may not result in reduced transaction costs despite the fact that developing a parallel system could be avoided. One should note, however, that a well-constructed REDD+ program should offer opportunities to combat corruption and even ‘trimming’ state bureaucracies. Certainly, what is best will depend on the specific situation in each country, not least the will of the government to engage in reforms of its bureaucracy.

Finally, concerning budgetary support vs. funds in the state administration, the arguments for the former relate mainly to accountability/democratic processes and stronger capacity to coordinate across sectors. The funds solution seems to be better at obtaining increased transparency and permanence, and combat corruption where necessary. It may also – like separate funds – be organized in ways that avoid some of the rigidities for standard state administrations. Finally, it may be easier for external donors to formulate stronger conditions if the funds solution is used.

There is danger that REDD will create problems especially for the rural poor in the host countries. While we have seen that the studied governance structures vary concerning their capacity to deliver protection of these interests – that the ‘safeguards’ lie very much in the system chosen – there is no guarantee that they will deliver. This implies that it is necessary to institute separate rules and control systems to ensure that the rural poor in developing countries do not become the losing party in the game over who should carry the costs for reducing global climate gas emissions.

LIST OF ACRONYMS

CDM	Clean Development Mechanism
CERs	Certified emission reductions
COP	Conference of the Parties (under UNFCCC)
CTF	Conservation Trust Fund
FCPF	World Bank Forest Carbon Partnership Facility
GBS	General budget support
GEF	General Environment Facility
HFC-23	Trifluoromethane
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
MRV	Monitoring, reporting and verification
NGOs	Non-Governmental Organizations
OECD	Organisation for Economic Co-operation and Development
PES	Payments for environmental services
REDD/REDD+	Reducing Emissions from Deforestation and Degradation
SBS	Sector budget support
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	The United Nations Collaborative Programme on REDD in Developing Countries
UNEP	United Nations Environment Programme

1. INTRODUCTION

A core issue for the post-Kyoto climate regime concerns how mitigation of greenhouse gases via reduced deforestation and forest degradation (REDD) should be included. This involves defining rules for international and national governance structures. Deforestation takes place mainly in tropical forests and it is an important source of carbon emissions (IPCC 2007). Hence, REDD activities are in the UNFCCC negotiations limited to activities in the South. Moreover, REDD is seen as a low cost climate mitigation option (Stern 2007) and countries in the North with large emissions regard REDD also as a way to reduce their mitigation costs. Hence, there is an interest in the North for paying the South to reduce deforestation.

These kinds of transactions demand the establishment of an institutional system to transfer money and secure delivery of REDD. This paper focuses on one core aspect of such a structure – the national governance structures or architectures. More specifically the aim is to carry out a pre-analysis of a set of potential governance structures, where the degree of market and government involvement and control varies. These are:

- a) a market/project based architecture
- b) a system with national REDD funds outside existing national administrations
- c) a national REDD fund organized under the present national administration
- d) conditional budget support

Studying governance structures implies an emphasis on their capacity to identify and define goals and to formulate structures able to reach the goals set (Pierre and Peters 2000). REDD is about reducing emissions of greenhouse gases. While the obligations for reductions will be set in international negotiations, the national governance structures for REDD will influence who will be involved in defining national responsibilities and how policies ‘on the ground’ will be formed. It should be noted that reduced deforestation will not only influence greenhouse gas emissions but also livelihoods for millions of people. Hence, REDD could result in changed, even impaired, living conditions for people that already face a demanding situation. Certainly, in this context, the structure of the decision-making process from goal-formulation to evaluation, and the issue of who participates and decides, will be of great importance.

In relation to this, it should be noted that REDD has been seen by many as a potential ‘triple win’ policy. Payments from the North to the South have been interpreted not only as a way to compensate for losses, but even to facilitate development. Also, the capacity of REDD to reduce loss of biodiversity has been emphasized. From the COP 15 in Copenhagen in 2009 it became standard to talk about REDD+ instead of REDD (Climatico 2010). This implies no changes in the definition of REDD, but could be interpreted as a somewhat stronger emphasis on the issues of “conservation, sustainable management of forests and enhancement of forest carbon stocks” (UN REDD Programme 2010).¹

¹ So while REDD literally is about reducing deforestation and forest degradation, the + emphasizes e.g. the enhancement of carbon stocks in already forested areas through increased carbon density. The above formulation has, however, been included in the definition of REDD back to Bali/COP 13. Note that both afforestation and reforestation are included in the Kyoto regime through the Clean Development Mechanism (CDM). While these measures imply enhancement of forest carbon stocks, they are not included in REDD+. Afforestation and reforestation measures have become quite contentious and their future role is unclear.

No data exist that can be used for a direct comparison of the four structures defined above for REDD+, basically because REDD+ is still on the drawing table. Our analysis will hence be based on experiences from similar governance structures and policy ambitions/goals. In the case of a project-based architecture, experiences with the Clean Development Mechanism (CDM) and various payments for environmental services (PES) will be utilized. Concerning national REDD+ funds outside existing national administrations, we make use of information regarding Conservation Trust Funds (CTF). In the case of a REDD+ fund organized under the present national administration documented experience is rather scant. We will as far as possible draw on insights concerning national forest funds. Finally, in the case of budget support, we can utilize experiences with general budget support with and without conditionality. Certainly, a full scale REDD policy would have qualities and demands that few if any of the above cases cover. Hence, the analysis also demands a deepening into the specificities of REDD+ and a discussion about how the experiences obtained from the above cases could fit in a REDD+ setting.

The paper has the following structure: First, we emphasize some theoretical aspects of the governance issue that are relevant to REDD. Second, we discuss various specific challenges for REDD+ and define a set of criteria for the analysis. Third, we offer a specification of the options we have selected for national REDD+ governance structures. This is followed by a comparative analysis of the chosen structures. This section constitutes the main part of the report. Thereafter a discussion of the core findings is undertaken. The report closes with a short conclusion.

2. STUDYING GOVERNANCE STRUCTURES – A THEORETICAL PERSPECTIVE

Governance encompasses the processes that shape social priorities, how conflicts are acknowledged and possibly resolved, and how human coordination is facilitated. The shaping of human action is at its core. Governance is more than government. It includes actors such as communities, businesses and NGOs (see also Leach et al. 2008). In an area like that of the environment, governance concerns, moreover, issues both at local, regional and global scales involving the interlinkages between these levels.

A core aspect of governance is its legitimacy, specifically how different groups are included in the decision-making and implementation processes, and how decision-makers are accountable to those whom the decisions concern. The issue of shaping priorities involves in the case of REDD+ defining both the levels of reduced deforestation and how strong the emphasis on poverty alleviation and biodiversity protection should be. As these goals may be in conflict – i.e. the strategies that could result in the largest effects on CO₂ mitigation may be the ones with most negative effects on livelihoods – some difficult trade-offs appear. Various governance structures will handle these trade-offs differently. Moreover, it is not just through the formulation of goals that priorities materialize. The governance structures chosen will therefore also influence goal attainment through influencing how easy it becomes to reach the various aims defined – e.g. transaction costs/costs of coordination.

Governance structures consist of two main elements:

- The *type of actors* involved, characterized by their capacities and competencies. Core issues concern actors defined by their power and resources, rights and responsibilities;
- The *structures facilitating the interaction/coordination* between the actors.

Both actor types and systems of interaction are institutionalized features. Hence, they are structured by a set of conventions, norms and formal rules (Vatn 2005). The actor types involved, their capacities, interests and specific roles in actual governance structures influence the outcome. Similarly, the type of interaction facilitated between these actors influences the capacities of the overall system.

Concerning the actors, one may distinguish between three ‘ideal types’²: private, public and community organizations. The basis for this classification is the form of property rights and hence the interest and decision making structures involved. Certainly, each category covers a wide variety of institutionalized structures. Nevertheless, they carry some distinct features concerning decision-making. Private property organizations cover households and firms. The most important public bodies will be states and state bureaucracies. Certainly, also local public organizations like municipal boards are included here if they are part of a formalized national hierarchy of governance bodies. Community organizations rest with the civil society. Core subtypes would be common property organizations and locally founded village councils. Given this categorization, NGOs will also belong to the latter group.

² The concept of ‘ideal types’ in the Weberian sense

Concerning types of interaction, we may typically distinguish between market exchange, command and reciprocal arrangements. We may also encounter situations where no rules are defined. In market exchange values are traded between parties that are seen as (formally) equal and the exchanges are in ‘ideal type formats’ understood as non-personal. Command is a type of interaction based on a superior having the power to direct other agents, in this case based on rules defined by the state. Finally, reciprocity is based on cooperative norms between the involved actors. These rules are typically formed by communities of actors. Being less formalized than markets and command, participation and equality is typically emphasized. The ‘no rules’ situation is finally a situation of anarchy, which implies no norms binding actors together or no hierarchical structures.

Table 1 offers an overview of the potential combinations between the defined types of actors and interactions.

Table 1: Governance structures

Type of interaction	Type of actor	Private property organizations	Public organizations	Community organizations
Market exchange				
Command/state based interaction rules				
Reciprocity/cooperation based interaction rules				
No rules defined				

All combinations are observed in practice, while some are more dominating – e.g. firms operating in markets. Note also that while public bodies may have the power to command others – e.g. the legal power of parliaments – command is typically the way internal power is executed within firms, public bodies and even to some extent in community organizations.

It should be emphasized that the state, as a subgroup of public organizations, has a dual position in terms of governance and governance structures. It may itself operate as an agent in markets or command firms through legal measures. It has, however, as an arbiter, also the power to issue and protect property rights that form the basis for all other types of actors.

In the literature one finds an increasing emphasis on hybrids, meaning mixed forms of the above actor structures – e.g. Lemos and Agrawal (2006); Sikor (2008). Some of these are public-private partnerships where e.g. the board of the organization has representatives both from the state and private sector. Note, however that in some cases what are called ‘hybrids’ in the literature, no new property organizations are actually established. Rather the state and private property organizations operate together typically through a combination of market and command, or market and reciprocity based interactions.³

³ The distinction we make between actors and interaction structures is crucial in a treatment of this issue. The literature typically distinguishes between state and markets. While useful for some types of analyses, this distinction may create confusion as states may certainly operate in markets.

What is of interest for our enquiry is the various capacities of the different types of actors and interaction formats. Here we emphasize the following aspects:

- *Rights and responsibilities*: In the case of governance, the core issue concerns the rules defined for political decision-making. Another important issue concerns who has power over economic resources. Looking at the political level, we are especially interested in who has access to the decision-making processes and what role each actor is allotted. In relation to this, accountability, empowerment and participation are important questions. In the case of the sub-system of the economy, rules concerning access to productive resources – e.g. property rights – are core. Rights and responsibilities are partly normative questions. They define which interests are formed and protected. The overall legitimacy of institutional systems is very much related to the procedures established for decision-making and implementation at various levels of society.
- *Information*: Production and distribution of information are essential in any governance structure. Access and transparency are important dimensions of information systems. Both the quality and type of information produced are seen as influenced by the governance system. Equally important is the relation between ‘senders’ and ‘receivers’ and the social constructivist nature of knowledge - what kind of information and knowledge is accepted as basis for decisions by different parties.
- *Transaction costs*: This concerns how costly interactions between actors are. In a wide understanding they cover costs of information gathering, formulation of goals, agreements and contracts, and setting up and running systems for controlling the fulfillment of what is agreed (Dahlman 1979). Transaction costs vary both due to the characteristics of the issues/goods involved and the type of governance system. Some services may be easily handled through the market while for others a high level of uncertainty and measurement costs may make public systems or allocations within firms more favorable (e.g., Williamson 1985).
- *Motivation*: Here we move to the issue of what logic and interests influence decisions. Motivations vary across both types of actors and forms of interactions (institutions) (March and Olsen 1995; Vatn 2009). Somewhat stylized, one envisions that owners of firms are motivated by the opportunity to make profits, managers by the opportunity to expand business and politicians driven by the logic of interest representation (stakeholder), or by wider concerns for the society at large (citizen). Moreover, the willingness to cooperate as opposed to acting strategically is expected to vary across governance structures – i.e., actor types and types of interaction.

Taken together these aspects of a governance system influence the outcomes that are produced, their costs and how these costs are distributed. These are highly contentious issues and studying governance structures will therefore involve several normative questions.

3. STUDYING REDD+

3.1. THE REDD+ GOVERNANCE CHALLENGES

REDD+ poses some specific challenges for governance as forests have particular characteristics as carbon sinks. Being biological systems, they are vulnerable to many kinds of natural variations and perturbations. This implies that storage is uncertain, raising questions about the potential permanence of the actions taken. It may even be that certain emissions of carbon – e.g. small forest fires and thinning – may reduce the chances for larger fires to start (see e.g. Ostrom 2009). This situation poses complex issues for specification of responsibility under a system of performance-based payments. It also raises questions about additionality – i.e. what would have happened if a REDD+ project had not been instituted. The idea of REDD+ is to pay only for increased carbon storage, i.e. for changes that would not otherwise have taken place (Angelsen 2008).

Forests represent vast economic resources. They form livelihoods for millions of people as they deliver firewood, timber, clean water and land to clear for agriculture. They may also have cultural value and be important for people's sense of belonging. REDD+ must have the capacity to change the behavior of people and do so in ways that are acceptable and enduring. Moreover, wood and timber resources are part of not only local, but also regional and global markets. This has two implications of importance for REDD+ governance. First, drivers of deforestation are not only local. Second, stopping deforestation at one place may not result in net increase in carbon stocks as deforestation may just be moved to a different location. Hence, leakage is a considerable challenge for REDD+ (Wunder 2008).

As emphasized in the introduction, REDD+ may not only result in increased carbon storage. It is also hoped that it will increase biodiversity and reduce poverty. Tropical forests are very rich in biodiversity. Protecting these forests will therefore be an important way to reduce biodiversity loss. However, where carbon is cheapest to store, there is not always most biodiversity to protect. Venter et al. (2009) are among those documenting that cost-effective REDD strategies will not maximize biodiversity protection at the same time. Hence, if money goes after the cheapest carbon storage opportunities, it will not always flow to the regions with the highest biodiversity. The model analyses show, however, that by reorienting REDD activities – implying reductions in total carbon stored at the level of 4-8% – the number of species protected could be doubled.

What then about poverty alleviation? Certainly, REDD+ will restrict the use of forest resources and important livelihood options will be lost. As already emphasized, the idea behind REDD+ is that this loss should be compensated via payments. Hence, those dependent on forest resources should be at least equally well off. In reality, this is not simple to ensure. First, large areas across the tropics may become protected. The conditions for agriculture, including needed expansions into new land to feed a growing population, may become completely changed. Hence, it will not be enough to compensate just with money. One may also need to establish programs to support changes in farming practices, make new sources of nutrients available etc. (Vatn et al., 2009). Second, who will be compensated in the end? Landless people normally form the poorest segment of rural inhabitants. They often depend heavily on forest livelihoods (Vedeld et al. 2007).

However, since they do not own the land, they often do not receive any compensation. As is observed in Nakakaawa et al. (unpublished) and Eraker (2000), local landless people may lose access to rented land as e.g. payments for forest plantations offer higher compensation to the owners. Moreover, property rights are often unclear or at least not well formalized. As REDD+ will demand some form of title as a basis for payments, there is a concern among local and indigenous people over “the potential for a “land grab” whereby governments, carbon traders, and speculators secure rights of the ecosystem services provided by forests without the consent of the people who live within the forests” (Butler 2009: no page).

Actually, there is clear evidence that not only owning land is important. As Kerr et al. (2004) show in a study from Costa Rica, carbon payments tend towards the larger land-owners. This is partly due to less responsiveness to returns in poorer areas. They also indicate that transaction costs play a role as these costs are lower per ton of carbon sequestered for larger than smaller deals. As forest activities go down, the local job market may also shrink. In relation to this, Wertz-Kanounnikoff et al. (2008) emphasize the need for not only paying compensation to land owners, but also supporting the development of economic alternatives.

Taken together, the above implies that even covering opportunity costs could produce increased poverty as the poorest segments are in danger of losing access to land/jobs without holding access to resources that secure that they get any of the compensations offered. Moreover, reducing poverty implies a need for policies that not only compensate for losses but also increases opportunities. There are several aspects of relevance to this issue. Money dispersed to e.g. individual forest owners may help produce some alternative livelihoods. If alternative sources of energy are available, they can buy or invest in these. If collective action is needed to create alternatives and/or transaction costs for establishing alternatives are high, spreading all the payments across individual land holders may, however, impair necessary coordination. Certainly, payment systems or the way money is distributed influences directly how easy it is to create cooperative action. As emphasized by Bowles (1998), the mere introduction of payments may reduce cooperative will.

Finally, large sums of money may attract people with other motivations than reducing carbon emissions and securing co-benefits. As the forest sector is in many regions already haunted by corrupt practices – e.g. Smith et al. (2003) – a financially large REDD+ will increase both opportunities and temptations. REDD+ has a potential of becoming a big endeavor. In monetary terms it could, according to the UN REDD Programme (2010), reach up to 30 billion US dollars per year (see also Meridian Institute 2009a).⁴ This compares to the total global development funding of about 120 billion US dollars (OECD 2007). One should note that concerning size, REDD+ could out-compete present national forestry programs in many countries to be involved.

⁴ It should be noted, though, that so far only 4.5 billion US dollars are committed in total. Hence, one may argue that reaching the high levels indicated is not very probable. On the other hand, REDD is not yet part of any international agreement and when that happens, the motivations for engaging in REDD will be substantially changed.

3.2. EVALUATION CRITERIA

This paper focuses on evaluating a number of governance structures for REDD+, hence a set of criteria is needed. Based on the perspectives and issues raised above in Sections 2 and 3.1, we have developed the following set⁵:

- *Overall political legitimacy*: Concerns how acceptable the solution is for national authorities, civil society/local communities, donors and other international organizations engaged in REDD+. Important is who the eligible participants are at different stages of the REDD+ process. Legitimacy also concerns transparency and accountability, distribution of power and wealth/REDD+ financial flows.
- *Effectiveness*: Concerns the capacity to raise funds and deliver on reduced deforestation – e.g. target the drivers of REDD+. Similarly, it concerns the ability to avoid leakage and to ensure additionality and permanence. Implicit in the above is the capacity to coordinate across sectors and levels of government to the extent that solutions will involve different sectors. Implicit is also motivational aspects – including the risk of corruption.
- *Efficiency*: Concerns the ability to deliver cost-efficient REDD+ results. This involves both the direct cost of e.g. reduced deforestation and the transaction costs related to the system of decision making, contracting, delivering payments, monitoring, reporting etc.
- *Capacity to deliver on co-benefits*: Concerns the effects on poverty reduction and biodiversity preservation. Again, transaction costs and motivational issues are important as they influence the use of REDD+ resources. Also, the internal linkages between REDD+ and co-benefits are core aspects.

While we have tried to make the criteria as distinct as possible, there are some unavoidable overlaps. In a sense, all other criteria are of relevance for the overall political legitimacy of a system. According to Bäckstrand (2006) one may further distinguish between input and output legitimacy. While input legitimacy concerns the decision-making process and who is involved in making the policies, output legitimacy concerns the results obtained – e.g. how resources are distributed, effectiveness, efficiency and, in our case, the production of co-benefits.

One could also ask whether ‘co-benefits’ should be part of the REDD+ goal and hence included as part of the effectiveness and efficiency criteria. Given that the basis for REDD+ is climate gas mitigation, we have decided to follow standard practice and treat poverty reduction and biodiversity preservation as co-benefits. This is, however, not a simple choice and many people active in the development policy arena emphasize that the acceptance of a goal structure with development being merely a ‘co-benefit, has tended to push it into the margins of the negotiation tables.

Finally, equity is not explicitly included among the criteria. This is so because poverty eradication is part of the REDD+ co-benefits. Hence, we decided not to include equity as a separate criterion to avoid repetition in the text. Note also that parts of the equity issues – power and wealth distribution – are included in the criterion ‘overall political legitimacy’.

⁵ The list used here is a simplified and restructured version of Vatn and Angelsen (2009)

4. AN OVERVIEW OF THE OPTIONS FOR NATIONAL REDD+ GOVERNANCE STRUCTURES

As emphasized in the introduction, we will evaluate four types of national governance structures for REDD+; see Figure 1.

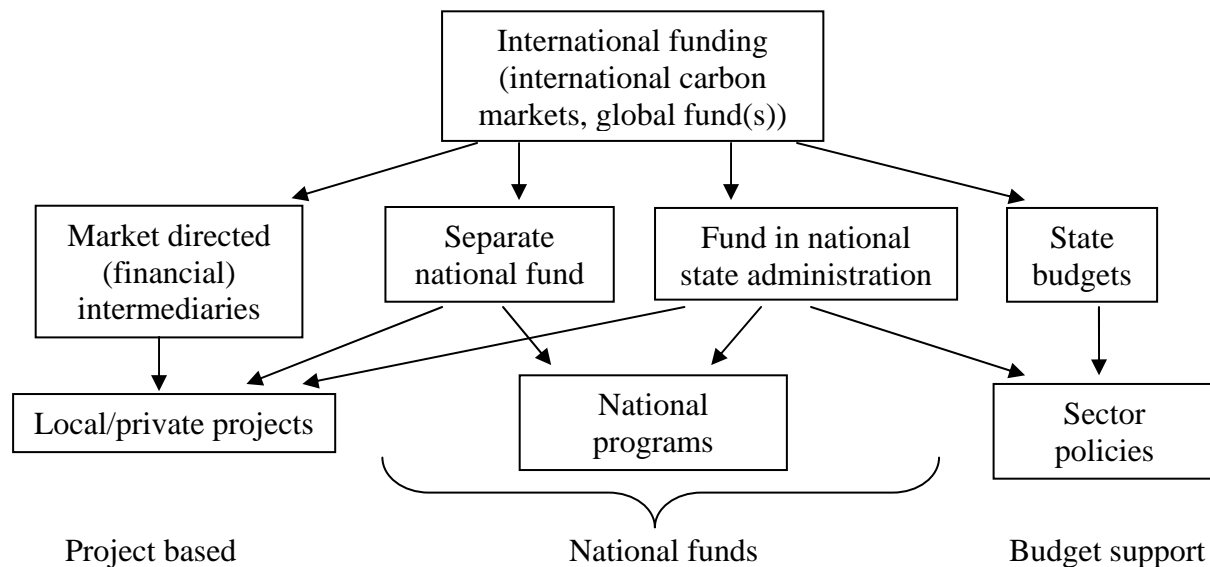


Figure 1 Options for national REDD+ funding architecture

(Reproduced from Vatn and Angelsen 2009)

The market/project based system for REDD+ financing would be a system where actors – dominantly firms – with carbon emission reduction responsibilities buy reductions through funding local REDD+ projects. In principle this would be a system similar to that of today’s CDM. Certainly, voluntary payments directed at projects could also be part of such a system, going beyond the compliance or offset dimension of CDM.

The second option is a fund outside the national administration – i.e. a fund that operates independently. As in the case of existing Conservation Trust Funds, it could be led by a board consisting of both non-governmental and governmental agents. Typically, non-governmental participants would be in the majority (Spergel and Wells 2009). Such a fund or set of funds could operate through its own REDD+ programs ‘on the ground’ or through making resources available for other actors managing specific projects or programs.

The third and fourth options involve the actual state and state administration directly. The idea behind option three – a fund in the national state administration – is to use some of the capacities and competences of present state administrations. Allocation of resources is, however, made by a separate board with REDD+ responsibilities only. Such a board could include representatives from various state administrative bodies and national NGOs. Money from this fund could in principle be directed towards projects run by others, own programs and payments to various state

sector programs. It is the link to the state administration and the opportunity to directly distribute money to state sectors that distinguishes this option from that of a separate fund if we look at the issue of channeling resources.

Concerning budget support, the idea is to allocate REDD+ money directly to the state administration. The money will hence be part of the ordinary state budget process and sector policies. Certainly, if the state wants to establish separate REDD+ programs within its administration that is for the state to decide.

In Figure 1, the international level is also included.⁶ The choice of a national REDD+ structure may be constrained or facilitated by the choice of the international funding system. To study this issue goes beyond the aim of the present report. We would just like to note that REDD+ resources may be made available through international carbon (compliance) markets – like the present CDM – or they may come through different forms of international funds. Compliance markets – i.e. a system where agents with reduction responsibilities according to a post-Kyoto agreement receive certified emission reductions (CERs) for REDD+ payments – are expected to be best adapted to a project based structure with market directed intermediaries. It is, however, also possible to combine a compliance based system with an international fund. This fund simply issues CERs to actors with reduction commitments. The money paid to the fund can subsequently be used to buy reductions in deforestation. This would entail that resources, also from the private sector, could be made available for transfers to state budgets.⁷

Payments could in all four cases be performance based – i.e. based on actual delivery of carbon captured. Certainly, building the national REDD+ governance system itself could not be done on such a basis. Hence, we observe REDD ‘readiness’ activities as in the case of UN-REDD and the World Bank Forest Carbon Partnership Facility (FCPF) (UN-REDD Programme 2010; World Bank 2010). In the case of the final investments in forest carbon, a core question would concern how a performance based system could be set up and how not least various involved uncertainties should be treated – e.g. natural disasters reducing carbon sequestration. Moreover, the question about ‘co-benefits’ is core here in the sense that payments could depend also on their development. While important, this would complicate a performance based system further.

Finally, it must be emphasized that there is no single best solution. National/local conditions will influence what is the wiser choice. In a country with very weak state administrations or high levels of corruption, building a separate system may be the only viable solution. However, even in such cases, one will have to decide whether it would be better to invest in helping the actual country to strengthen its administrative capacity/to increase transparency and accountability of public administrations or build a separate REDD+ system alongside it. Here, an evaluation of the long term consequences for a country’s public administration of choosing either solution needs to be included. The fact that there is no single best solution would finally imply that the international REDD+ governance structure must be flexible enough to support different national solutions.

⁶ For an analysis of international REDD/REDD+ architecture, see Angelsen (2008) and Meridian Institute (2009b)

⁷ This issue is a bit confused in the literature. This may be the result of the fact that originally the fund solution – as proposed by Brazil – was based on voluntary payments. While this is also an option to include in the international governance structure, the point here is that the carbon market could become a source for the international fund, too.

5. EVALUATING THE REDD+ GOVERNANCE OPTIONS

Reviewing the existing data on various governance options, we will follow the order of options as specified in Figure 1. For the flow of the argument, we make one exception, though. We will handle the state budget support model before looking at funds in national state administrations. The analysis combines experiences with existing systems similar to the types we study, including insights about the specificities of REDD+ into the evaluation.

5.1. A MARKET/PROJECT BASED ARCHITECTURE

The main empirical basis for assessing the capacities and effects of a market/project based architecture is data from CDM and to some extent PES projects. Over the last 5-10 years a substantial literature evaluating these kinds of solutions has been developed.

The project based system draws especially on the capacity of markets to deliver cost-effective solutions. If part of a compliance market solution, it will establish a structure that offers strong motivation to find solutions to carbon mitigation that are low-cost. The potential of this solution to attract more resources to REDD+ has also been emphasized by several authors – e.g. Karousakis and Corfee-Merlot (2007); Angelsen (2008); Saunders et al. (2008). By establishing compliance markets, one creates self-interest among firms/sectors that have reduction responsibilities to invest in e.g. REDD+ as it is relatively low cost. It is noted that it may be difficult to get a sizeable REDD+ if based only on public sources and voluntary donations. Hence, this kind of private funding is seen as necessary to make REDD+ successful. Finally, it is argued that by using markets, one avoids or reduces substantially the problem of corruption as is so often observed in government administrations in many developing countries.

While these are strong arguments, there are also data and arguments that point towards challenges and problems. Concerning the overall political legitimacy, the size of REDD+ may create problems for a market solution. While the market has high legitimacy in the business sector, the issue may be differently evaluated by the states involved – especially those at the receiving end. As already noted, REDD+ has the capacity to outnumber by far the amount of resources presently available in the national public forest sector. This implies that REDD+ may dominate the forest sector financially and side-line the state in forest sector planning, management and protection. Moreover, a market/project-based approach could influence the ability of the state administration to improve transparency, accountability and participation in decision-making negatively thus reducing wider legitimacy.

It must also be noted that it is not given that a compliance market will attract large resources for investments in projects curbing deforestation. The CDM offers some insights that are relevant for evaluating a project based REDD+. In 2009 only about 1% of all CDM projects in the pipeline were within the forest sector (UNEP, Risoe Centre, 2010). According to Robledo and Ma (2008) this ascribes not least to complicated rules and the fact that such projects are time-consuming and expensive to initiate compared to other types of CDM projects. Thomas et al. (2010) reaches similar conclusions. Cosbey et al. (2005) offer similar insights. Note also that when establishing CDM, it was decided to only include afforestation and reforestation. This was partly due to the

expected high transaction costs – enhanced challenges for contracting and controlling – if including deforestation and forest degradation. It is hence questionable whether compliance market money will in fact be easily attracted to the forest sector especially under REDD+. They might flow elsewhere. Therefore, to avoid that, one might have to make investments in the forest sector ‘compulsory’ to some extent, which in many ways would go against the very logic of the market/project model.

While transaction costs seem to explain the low level of forest projects under CDM, there is little data documenting the actual level of these costs. In the case of PES, Wunder et al. (2008) offer data on both transaction costs and payments across a few cases. These analyses indicate that transaction costs are in the order of 30–100% compared to payments. Studying agri-environmental programs Rørstad et al. (2007) conclude that the complexity of a transaction vastly increases transaction costs. One core element in this is the structure of the trades involved. Markets seem to work well for standardized commodities. As soon as one moves to more specific trades like exchanges over environmental services, using state payments/taxes as opposed to market trades may simplify information processing substantially. While this solution may involve some loss of precision, the net effect is still increased efficiency compared to markets – see Vatn (2010) for a more detailed development of this reasoning. The fact that property rights for forests are often not clarified or contested strengthens the argument.

One of the potentially weak points of a market/project solution relates to its capacity to handle leakage. The experience with CDM illustrates this. To be viable, monitoring and control schemes must be set up outside the project areas as well. Hence, systems for monitoring, reporting and verification (MRV) would have to be developed separately. If leakage is observed, the project based system will, however, have no power to correct for this, as it will be beyond the power of projects to correct such developments. This reflects an important general disadvantage with this kind of system. There is no arrangement to coordinate activities on the ground except the power of involved nation states to dismiss projects.

REDD+ compliance markets will naturally direct action towards buying carbon projects. There are, however, many drivers of deforestation that may demand action in other sectors than forestry, e.g. energy and agriculture. To the extent successful REDD+ action demands cross-sector engagement, a market/project based solution may have a large handicap. As important is the fact that much deforestation is the result of illegal logging and poor governance. These are issues that the market/project approach itself does not engage with (e.g., Saunders et al. 2008).

The CDM has been criticized for different types of corrupt practices. Certainly, there are great temptations related to buying ‘reductions on paper’ only. This is especially challenging to avoid as both sellers and buyers gain the most from fictitious trades. There are thus issues concerning additionality of projects and the problem of overestimated effects – e.g., Schneider (2007). In the case of the most important compound in today’s CDM markets – that of trifluoromethane (HFC-23) – heavy criticisms have been formulated. Sovacool and Brown (2009:325) state that

“The sale of carbon credits generated from CERs for HFC-23 has become far more valuable than its production in the first place. Manufacturers of HFC-23, responding to market demand for CERs, started producing it just to offset it. Researchers at Stanford

University have calculated that, as a result, payments to refrigerant manufacturers and carbon market investors to governments and compliance buyers for HFC-23 credits have exceeded 4.7 billion when the costs of merely abating HFC-23 would have been about 100 million – a major distortion of the market.”⁸

Having emphasized the general problems of corruption in CDM, one needs also to recognize that corruption has been a general problem in the forest sector in many regions relevant for REDD+. This not least involves public officials.

Finally, concerning co-benefits, the experiences with market based solutions are varied. As already emphasized, paying for carbon will not directly offer the best solution for biodiversity and poverty alleviation. Reviewing the literature, we have made the following core observations:

- CDM has delivered rather weakly on co-benefits. Such benefits are in the CDM context related to sustainable development – more specifically effects like employment generation and welfare improvements. Those buying emission reductions are motivated to find the cheapest carbon options. For co-benefits to do well in a market setting, these must then be jointly produced with the cheap carbon. Olsen (2007) and Olsen and Fenhann (2008) show that this is often not the case.
- In line with this, CDM money tends *not* to flow to the poorest regions. Hence, Africa has received a very low percentage of CDM investments (UNFCCC, 2009). An important part of the above picture relates to the fact that poor people may have less secure property rights, and transacting with them is relatively costly compared to low carbon effects gained per trade (e.g., Kerr et al. 2004; Lipper and Cavatassi 2004, Cosbey et al. 2005). It is also observed that the CDM market may create a ‘race to the bottom’. Countries compete for CDM money and this weakens the possibility to put strong emphasis on co-benefits when evaluating projects (e.g., Olsen and Fenhann 2008; Sutter 2003).
- The Venter et al. (2009) analysis, as already referred to, points towards similar issues for biodiversity protection as for poverty alleviation. There are trade-offs between cheap carbon and high levels of biodiversity protection, while the challenges in this area seem smaller than those concerning poverty alleviation. Venter et al. focuses on policies to reduce deforestation. If we further acknowledge that REDD+ includes forest regeneration, the way regeneration is made becomes an issue. If planting is involved, the choice of species is core.
- CDM has attracted substantial resources. Hence, Lloyd and Subbaro (2008) emphasize that it has caught the attention of many intermediaries that rather are ‘after the money’, and the wider aims of CDM have to some extent been side-lined.
- The kind of market established also influences motivations for those engaging in carbon trade. Neeff et al. (2009) document a willingness to pay for co-benefits in the voluntary market. While buyers of CDM credits look for cheap carbon, those operating in voluntary markets are ‘buying’ consumer trust. They are looking for projects that can tell a good story – for ‘charismatic’ carbon (Stenslie 2010). This illustrates how the compliance institution itself narrows the focus of traders.

⁸ Sovacool and Brown (2009) refer to work by Wara (2007) and Wara and Victor (2008). We are thankful to Ostrom (2009) for making us aware of these references.

Based on the above, authors like Wertz Kanounikkoff et al. (2008) and Trumper et al. (2009) have concluded that in the case of structures like CDM and PES, special action is needed to ensure delivery of co-benefits. A market for carbon will in itself divert the focus away from the wider set of goals.

One should note that the kind of intermediaries involved in the market/project solution may make a difference concerning performance. Some intermediaries are ‘pure’ traders while others – like some NGOs – involve as intermediaries for wider reasons than earning income from the trades. While we have found no studies analyzing whether NGOs or ‘for-profit’ intermediaries operate differently, there are reasons to expect that they do. Note that the Gold Standard for carbon credits was developed by NGOs to specifically strengthen the emphasis on co-benefits/ sustainable development (Stenslie (2010)).

5.2. FUNDS OUTSIDE EXISTING NATIONAL ADMINISTRATIONS

Conservation trust funds (CTFs), also called environmental funds, are a core type of funds outside existing national administrations of interest to us. Such funds have existed since the early 1990s. According to Spergel and Taïeb (2008) there now exist about 50 CTFs. They are predominantly found in Latin America and the Caribbean region. There are, however, some CTFs in Africa and Asia, and in some countries belonging to the former Soviet Union. CTFs are dominantly organized to finance biodiversity protection, to a large extent oriented towards forest ecosystems.

Before we look into the experience with such funds, we must note that CTFs operate as intermediaries in many PES projects. There is therefore some overlap between this governance structure and the systems covered by the former section. We also note that in analyzing experiences with CTFs, there are much fewer sources to rely on. Moreover, the analyses done are dominated by donors themselves and/or consultants. The inputs from the research community are few.

CTFs are operating at national levels and many have been established by special national legislations or decrees (Spergel and Wells 2009). They can be viewed as a type of public-private partnerships as the boards of these funds are constituted by a combination of representatives from civil society, business, academic organizations, donors and government officials. Non-governmental representatives are typically in the majority (GEF 1998). There are many different types of funds. If we distinguish according to the financial structure, we may divide in three:

1. ‘Endowment funds’ (invest their capital and use only income from those investments);
2. ‘Sinking funds’ (designed to spend their investment income over a fixed period of time – typically 10-20 years);
3. ‘Revolving funds’ (receive resources on a continuous basis from e.g., taxes or fees designated to pay for conservation programs)

(see Bayon et al. 1999; Spergel and Wells 2009).

The literature on CTFs is generally quite positive concerning their accomplishments. It documents high overall political legitimacy. This is not least explained by the fact that CTFs are

often established by initiatives from the hosting state. The wide representation in the boards also strengthens legitimacy. The system built for these funds ensures in general good transparency concerning use of money. In many CTFs the board members are appointed as individuals to avoid too close ties to specific interests. One may think that this could raise issues of accountability. We have found no indications of this, though. Spergel and Taïeb (2008) emphasize that the business sector is also generally positive to CTFs while the somewhat lower visibility offered to donors compared to the market/project based system may be an issue.

Concerning effectiveness, the first point to note is that CTFs are mid- to long-term engagements. Compared to the market/project solution, this ensures more permanence, despite the fact that in the case of REDD+ 10-20 years is not sufficient. One should note, however, that if necessary, expanding the duration of CTFs should not be a problem if finances are secured.

It seems quite clear that the establishment of CTFs was motivated by the wish to attract more resources to national environmental protection activities like national parks and other forms of biodiversity protection. According to Spergel and Wells (2009) many finance ministries initially opposed the establishment of such a structure, but were persuaded to accept the solution due to its ability to access private funds, not least at the international level. Despite this, the main source of CTF finances is public, e.g. the Global Environment Facility (GEF), national public donors and also the government of the host country itself. According to Spergel and Taïeb (2008) GEF and aid together cover almost 75 percent of the funding for CTFs worldwide. They emphasize that corporations, non-profit organizations and foundations play an increasingly large role. Possibly due to the increased visibility offered, money raised this way is used to finance individual projects and programs rather than used as endowments.

Despite the fact that many of the above observations are positive, the literature emphasizes that the picture is actually rather uncertain concerning the impact of CTF activities. The focus has been more on 'process' than 'impact' monitoring – i.e., on documenting fund raising, decision-making and allocation of funds. Baseline data are often lacking and monitoring of results on the ground is weak. This seems clearly to have been the situation in the 1990s (GEF 1998) and it seems to continue also afterwards (Spergel and Taïeb 2008). This is a major weakness, but not an argument against CTFs specifically. It should be possible to remediate this by increased demands from donors.

Turning to efficiency, it has been argued that CTFs increase costs by establishing an additional management level between buyers and sellers – see Bayon et al. (1999). This argument does not seem to be very well substantiated. Making this kind of transaction is demanding, and using intermediaries seems hard to avoid. Rather, professional intermediaries could reduce transaction costs (op. cit.). How efficient CTFs are at doing that job is a bit difficult to estimate given present data. GEF (1998) documents that funds have operating costs in the range of 25-30% of the total budget. Spergel and Taïeb (2008) record administrative costs in the order of 10-20% of total annual budgets. These lower figures may as well be explained by increasing budgets over time (fixed cost issues) as by increased efficiency. It should be expected, however, that CTFs become more professional as they gain experience. The transaction cost figures presented earlier for PES were a bit higher (15-50% if recalculated to the above format). This may be explained by the fact that they not only include costs for the intermediaries, but also transaction costs for the local

organization running the projects. Note also that the intermediaries in the relevant PES cases covered by Wunder et al. (2008) may in many cases be CTFs.

A reason for establishing CTFs has been to reduce corruption by making the system more transparent. Another argument is to ensure independence from governments by increasing donor confidence that funds will be spent efficiently and avoid redirection of resources to other government uses. The aim has been to provide continuity by preventing changes in priorities resulting from changes in government (Starke 1995). The literature on CTFs does not document problems with corruption. Note, however, that the comparably higher emphasis on corruption in the CDM literature may follow from the different goals, not different systems *per se*. Most CTFs are oriented at funding national parks and other activities to protect biodiversity. There are no compliance issues involved, no credits issued. Hence, there are fewer motives towards manipulating data on expected impacts. As we have seen, impacts are not even well documented in the case of most CTFs.

Both GEF (1998) and Spergel and Taïeb (2008) emphasize quite strongly that CTFs ought to avoid a governmental majority on the board. The reason is that this ensures a focus on the purpose of the CTF and avoids decisions being made along political criteria. This is not a straightforward argument as it seems to assume that political priorities are generally not legitimate. The argument could be turned around, emphasizing that the problem with CTFs is that they operate outside the general political structures and processes. This implies that donors decide on environmental protection issues, not through a democratic process. Certainly, the argument fares differently if the political process is undemocratic. Similarly, the short-run perspective of most political systems could be an argument for lifting long-run issues like environmental ones out of the standard political process. Democratic systems may themselves establish CTF type structures exactly for that reason.

Arguments in favor of CTFs also concern their capacity to avoid the rigidity of many state administrations. In line with this, Spergel and Taïeb (op.cit.) offer examples of very bureaucratic management systems if e.g. the CTF is underlying a ministry. Certainly, the potential gain that the CTFs represent in reducing bureaucracy depends on the kind of public management system that exists in the host country.

Payments for environmental services may not have a well defined and well organized receiver. In relation to this, Bayon et al. (1999) emphasize that effective CTFs tend to expand beyond the role of a pure financial mechanism noting that

“They often had to play roles in building institutional capacity and private-public partnerships, developing agile management approaches, nurturing community groups becoming involved in environmental activities for the first time, and contributing to the articulation of environmental priorities and strategies” (p. 8).

This is an argument for finding a solution other than a market/project one in the sense that a process and governance structure is often needed to establish conditions for making trades or payments. They note, however, that many CTFs did not have governing boards reflecting such a set of broader responsibilities.

CTFs have some of the same restrictions as market/project based systems concerning coordination across sectors. Spergel and Taïeb (2008) note that there are some observations that depart from this general trend. They especially refer to the experience with the Mexican Nature Conservation Fund and its capacity to coordinate its activities with official Mexican policies.

Similarly, CTFs operate to a large extent through funding projects. Hence, some of the problems mentioned in relation to this issue under 5.1 would also apply here. There is one important difference, though, in that CTFs are normally engaged in a wide series of projects which offer opportunities to coordinate across these.

Turning finally to co-benefits, there is not much experience documented from CTFs. They are dominantly oriented towards protecting biodiversity. To the extent that it is relevant to use these organizations for managing REDD+ resources, one could expect them to be both positive to and capable of taking biodiversity issues into account. Note, however, that the dynamics of the situation will be different when the focus turns towards carbon and not primarily on biodiversity. Moreover, note that the Venter *et al.* (2009) argument is also relevant in this case. Being national organizations, the CTFs have no power in influencing which countries should receive REDD+ funds.

Concerning poverty issues, there has generally been a conflict between biodiversity conservation and securing local livelihoods. This concerns not least protected area management (e.g. Vedeld 2002; Hutton *et al.* (2005). As CTFs dominantly support the financing of such areas (GEF 1998; Spergel and Taïeb 2008), the issue is likely also a problem for them. Spergel and Wells (2009:81) point towards a specific aspect of this stating that “CTFs sometimes struggle with governments that want to use CTFs for poverty alleviation projects which are not related to conservation.” We should also note that in many cases, the CTFs have donor bearings and/or a management culture with quite strong conservation values and conservation oriented competence, tending not to be involved in community based management or outreach activities. Stronger local community orientation would improve the local legitimacy of these funds. They obviously vary in strategies and competence and would most likely need some re-organization and training of staff to carry out more outreach and collaborative type management support.

5.3. CONDITIONAL BUDGET SUPPORT

To change the operation of the forest sector in a country, why not pay the country directly to do so? As REDD+ may grow large, involving the government may seem warranted. Discussing this option, the most relevant literature to look into is that of budget support and conditionality.

Budget support, as a form of development aid, has become increasingly important since the late 1990s (IDD and Associates 2006). It has substituted some of the project oriented funding that formerly dominated. It implies “channeling donor funds to a partner country using its own allocation, procurement and accounting system” (Koeberle and Stavreski (2006:7). Moreover it is aimed at “support for a recipient country’s own development programs, typically focusing on growth, poverty reduction, fiscal adjustment, and the strengthening of institutions, particularly the budgetary processes” (op. cit.). One reason for this move was rather weak results with project

and even program aid that was seen as fragmented and weakly coordinated with national policies. It also represents a shift towards viewing the support as based not on a one-way support, but as establishing a partnership between donor(s) and the receiving country, and in line with a firmer recipient responsibility perspective. Finally, it may also make donor harmonization easier.

Budget support can be divided in two main types: general budget support (GBS) and sector budget support (SBS). GBS concerns support where there is common agreement on priorities between the government and donor, which is thought to remove the need for earmarking. SBS involves earmarking resources allocated to specific sectors. As already indicated, support has mainly been directed at general development/poverty alleviation. This focus has been further favored by the enhanced focus on these issues through the establishment of the UN Millennium Development Goals. Given this center of attention, the sectors of highest interest concerning earmarking have been education and health. It should be noted that GBS and SBS are not distinct categories in practice, rather end points of a continuum (IDD and Associates 2006).

The issue of partnership is strongly emphasized as a basis for budget support. It is hence developed against a critique of 'old style' conditionality as in the lending practices of the IMF and the World Bank from the 1980s demanding 'structural adjustments'. It was realized that 'good policies cannot be bought'.⁹ In the literature, several arguments are emphasized concerning the problems with strong conditionality (e.g., Checkel 2000; Killick 1997). First, using conditionality when goals of donors and the receiving government are in conflict is not very effective. Second, payments are very often distributed despite conditions not being fulfilled as donor representatives want to disperse money already allocated.¹⁰ This influences willingness to comply. Third, conditionality – at least when strong – reduces the engagement of the host country. An 'ownership' problem is created. Finally, conditionality "fares badly in national contexts marked by poor or fragmented policy environments" (Checkel 2000:3).

The interpretation of the above findings varies substantially across the literature. While authors like Killick (1997) and Svensson (2003) emphasize that conditionality is normally not formulated in a way that is consistent in incentive terms, Checkel (2000; 2001) underlines that the issue is not just about incentives, but also about developing a changed agenda 'where mutual learning and the discovery of new preferences replace unilateral calculation' (Checkel 2001:560). The latter emphasis is on developing a common agenda between host country and donors. This perspective stands in opposition to the incentive literature. The latter normally takes preferences as given and sees conditionality as constraints on the calculation by the receiving country representatives of what actions offer the highest returns for their country – i.e. commitment vs. strategic behavior.

Independent of what theoretical stance has the most to offer, we observe a move towards dialogue and increased emphasis on establishing partnerships. This idea forms the fundamental

⁹ This phrase refers specifically to an interview with Joseph Stiglitz when he left his position in the World Bank partly because of disagreement on the issue of conditionality (The Economist 1999). See also IDD and Associates (2006).

¹⁰ Svensson (2003) argues that this follows from an institutionalized divide between allocation and disbursement in the donor countries. The allocation decision is centralized by necessity, while the disbursement decision is decentralized creating a motive towards always disbursing funds.

basis for budget support. The picture is, however, quite complex as results are also rather varied. Hence, the problem of establishing true partnerships with common goals is emphasized (Booth et al. 2006). This implies that conditions are still an important aspect of donor claims trying to balance between creating recipient country ‘ownership’ and ensuring that outcomes are in line with what the donation aims at (Koeberle et al. 2005).

Turning to our criteria, how does budget support seem to fare? Concerning overall political legitimacy, this solution scores high if we consider the political leaders of the host country. The legitimacy among the business sector may, however, be much weaker. The acceptance among forest owners and local communities, but also the wider public in the host countries will very much depend on the type of government in place and its capacity and willingness to involve these interests.

Transparency may be an issue as money is now paid through national budgets and it will not be easy to follow its specific use. That is in a sense an effect of the logic behind general budget support. REDD+, using an SBS system, may increase transparency. If existing financial management and reporting systems are weak, additional fiduciary and accountability systems may be established – see also Koeberle et al. (2005) – but weakens the bearing idea of using this type of support. The question of accountability is equally important. The government may come in a kind of squeeze. Its basic accountability is to its constituencies. On the other hand, in the case of REDD+, accountability is with the buyers of carbon stored. This could be a larger problem for REDD+ than for other policies as REDD+ will have a more clear focus on specific delivery than e.g. budget support to health and educational improvements.

Moving to effectiveness, we observe several issues. Concerning raising funds, one may argue that budget support works fine when foreign states are the ‘buyers’. Securing private funding for REDD+ could, however, be a problem if the receiver is a state. This could be influenced by the international architecture chosen. If private businesses pay into an international fund against receiving carbon credits – certified emission reductions (CERs) – the system should fare equally well as the two systems described before. There might, however, be an issue with voluntary payments from businesses that would demand another or parallel structure.

Concerning leakage, a solution with budget support has the capacity to outperform the two other systems reviewed so far. Of the three, the state has the best capacity to establish national level monitoring as well as have the power to ensure that action in one locality is not countered by increased deforestation at other locations. In relation to this, one must note that the capacity of states varies. It can certainly not be taken for granted that the administration is capable and willing to establish and run the necessary programs well.

The issue of ensuring additionality is perhaps quite demanding also for this system. In the REDD discourse, it is emphasized that payments should be performance based. This implies defining conditionalities on delivery of carbon stored as a basis for payments. Note specifically that the argument behind using CTFs was not least to avoid money being diverted to other issues (Spergel and Taïeb 2008). Hence, for budget support to perform well, it might be necessary to define quite strict conditionalities. On the other hand, we have noted above that strong conditionality might reduce the cooperative will of the host country. Hence, there is a ‘trade-off’ here that

cannot be avoided. Moreover, the literature on budget support is critical towards relying on impact measures only – e.g. Booth et al. (2006); IDD and Associates (2006). The problem is that it may take time before results materialize. The recipient country may not have sufficient control over the processes determining impacts. Finally, there may be issues related to focusing more on reporting than on action – i.e. trying to look nice instead of doing well.

Concerning effectiveness and the issue of sector coordination, we note again that budgetary support has the capacity to outperform project-based and CTF-based systems. Certainly, most governments struggle with sector coordination. This is a general problem that seems to have been exacerbated through the turn towards New Public Management in the 1990s (Christensen and Lægread 2007).¹¹ Despite this, being part of the same administration opens up for opportunities that go far beyond that of funds outside the state administration – e.g. CTFs. In the case of market/project based solution, sector coordination is even more difficult to accomplish.

Concerning efficiency, there are strong arguments in favor of budget support in relation to keeping transaction costs low. By using existing systems, costs concerning both the establishment and running of alternative structures are avoided – see also Koeberle and Stavrski (2006); Lawson et al. (2005). The fact that public systems strongly dominate as intermediaries in PES programs is an indirect verification of the assumption that using public systems offers opportunities to keep transaction costs down – see Milder et al. (2010); Vatn (2010). We should, however, note that in many countries, the local administrations are weakly developed and REDD+ would demand further development here. We also note that ‘bureaucratic’ rules may hamper the efficiency of public administrations – note the argument made earlier by Spergel and Taïeb (2008). Certainly, the level of rigidity varies across administrations and across countries. Hence, the importance of this argument is contextual.

In many of the countries where REDD+ will be instituted, state administrations are often plagued with corruption and poor management. Corruption may seem to be especially rampant in countries strong on natural resources – not least forestry (e.g., Robbins 2000). It may still be argued that REDD+ should be used to strengthen the public administration at various levels simply because forestry management needs to be a public responsibility. This has both to do with the necessary accountability to the public and the fact that strengthening the national systems will have long run positive effects on the political system.

Turning finally to co-benefits, the argument in favor of budget support concerns the possibility to make strong links to present policies on poverty alleviation and biodiversity preservation – note also the above argument about coordination across sectors. Both poverty alleviation and biodiversity preservation are important issues for governments in many potential REDD+ hosting countries. One should nevertheless observe that there is no guarantee that such a wider set of goals will be taken into account. National biodiversity programs are often accused of not taking the interests of rural poor into account – cf. the previous discussion under Section 5.2. Policies to reduce poverty have often been criticized for being ineffective. Certainly, in these areas success will depend heavily on the engagement and will of the government in the specific countries.

¹¹ This follows from the emphasis in New Public Management on single-purpose organizations and the creation of separated public ‘businesses’. The recent trend towards the ‘Whole-of-Government Approach’ is a counter move to reconnect what was formerly separated.

Hence, one may need to establish some conditions also concerning the production of co-benefits if using budget support as the main strategy.

5.4. FUNDS INSIDE NATIONAL ADMINISTRATIONS

Lastly, moving to funds inside the national administration – from now on called national funds – the experience with so-called forest funds is by far the most relevant source of insights. Such funds have a longer history than CTFs – i.e. many have originated long before the 1990s.¹² They are of varying formats – spanning from quite autonomous funds being organized very much like CTFs, via funds that are run by a specific public agency, to funds being nothing more than a separate account in the budget of a ministry.

There are several reasons for establishing such funds. A dominant one concerns the way they are financed. A main source is revenues from forest activities – e.g. revenues from state owned forest logging, taxes on private forest logging, or income from forest tourism. As forest funds have originated very much in the forest sector, the resources are kept as sources for public forest management activities, reforestation etc.

In our context, forest funds that are run by specific public agencies are of greatest interest. They are still public – kept within the national administration – but are governed by a board/ administration that is separate from any ministry. According to Rosenbaum and Lindsay (2001) even this class of forest funds may have very different governance structures. There are funds run by a special agency within a ministry – e.g., the Bolivian FONOBOSQUE localized as a separate entity under the Ministry of Sustainable Development and Environment. There are also funds with greater legal autonomy like a public agency, foundation/trust or government owned corporation. In these cases, the government appoints the board/administration and secures its finances, but does not engage in the decisions concerning the use of the money, except formulating the statutes of the fund. Often boards include non-governmental representatives – e.g. people from industry and civil society are involved. Separate auditing normally exists for this kind of funds, while the normal state auditing authorities may still be used. An example of this kind of construction is the South African National Forest Recreation and Access Trust. Note that according to Rosenbaum and Lindsay (op. cit.) using forest funds is a very widespread solution, with some countries having established several funds – e.g., Brazil, Canada, Costa Rica and the USA.

Concerning the use of the funds, Rosenbaum and Lindsay (op.cit.) document a very wide spectrum of purposes. A dominant objective is reforestation and afforestation both on private and public lands. The funds may also support administrative activities both in the case of private and public forests. In fact, there are also several cases where the funds are used to finance ordinary public forest administration. Purchase of land for public reasons is also observed as an aim for forest funds.

In the literature on forest funds, systematic evaluations of their functioning are almost non-existent. Some elements are found in Rosenbaum and Lindsay (op.cit.) and in Landell-Mills

¹² Fontaine (1961) refers to funds set up as long ago as the 1920s and 30s.

(1999). But as Rosenbaum and Lindsay emphasize, their evaluations are mainly to be seen as hypotheses as they are not based on any systematic and in-depth studies. Based on these sources and on our own more general assessments, we may still offer some insights.

In the case of overall political legitimacy, these kinds of funds generally receive strong support from national authorities. They are the creators of these funds. We should note, however, that as in the case of CTFs, the ministries of finance have voiced arguments against the solution as it reduces overall budget coordination. There is no clear information available on how the solution is viewed by industry or civil society. Certainly, the purpose of these funds and the way they are organized and run vary substantially. Therefore it would be difficult to offer any general assessments. The literature emphasizes, however, the potential for increased accountability and transparency. Landell-Mills (op.cit.) emphasizes that this may be especially important for attracting funds from outside the public sector. She argues that “By raising the transparency of finance in the forestry sector and providing a guarantee that funds will not be siphoned off for other uses, donors and international NGOs have been more than willing to add their money to public resources in Forest Funds” (p. 36). Certainly, the will and capacity to distribute financial flows in a manner that is legitimate in the wider societal sense depends heavily on how the aim of the fund is defined, the will of the government to follow the rules set, and also the structure of the fund. Like in the case of the Indonesian Reforestation Fund in the Soeharto period, we see that also a forest fund may degenerate into becoming very much a source for personal enrichment (Barr et al. 2010). We will return to this case.

Looking at effectiveness, the literature emphasizes the positive effect of forest funds on long-term planning. The forest sector is an enduring business and a fund solution responds to the needs that this creates by moving decisions away from annual budgetary processes (Fontaine 1961; Landell-Mills op.cit.; Rosenbaum and Lindsay op. cit.). Certainly, this is also important for REDD+ where permanence is a core issue.¹³ As we have already seen, Landell-Mills (op.cit.) emphasizes the capacity of these funds to attract resources from outside the public sector. This also relates to the capability of national funds to reduce possibilities for corruption. The argument is that an autonomous or semi-autonomous fund ensures this by increasing transparency.

In terms of corruption, the literature is, however, quite ‘contradictory’. After having emphasized ways separate funds may counteract corruption, Rosenbaum and Lindsay (op. cit.:17) also argue that

“In a government with low pay for government workers, poor accounting practices, or a culture that tolerates corruption, any concentration of money becomes a target for illegal diversion. Keeping money outside the normal oversight inherent in the government budgeting process may increase the opportunities for corruption.”

Undoubtedly, local conditions, the system for administering the fund and the system for auditing all play a crucial role in determining the success of this governance structure.

¹³ Note also that political instability has not been quite common in tropical forest countries, especially in Africa. From 1960 to 2000, 60% of the African leaders left office being overthrown in a coup, invasion, war or by assassination (Luiz 2009). A solution with a national fund may not be strong enough to institutionally guard against such changes. The international community has, however, the capacity to withdraw funds if national policies are not acceptable.

Concerning leakage and cross-sector coordination, the fund solution should have many capacities similar to the system with budgetary support. If one finds it reasonable to establish more than one national fund, the capacity to control leakage will clearly be weakened. Using national funds will also imply a weakening of the capacity to ensure cross-sector coordination compared to budget support. One could envision the establishment of procedures that could facilitate a strengthening of such coordination, though.

Regarding efficiency, there are again some similarities to budget support if we look at the issue of transaction costs. If the fund is organized in such a way that it can utilize already existing public administrations to put necessary actions in place, no new systems need to be set up. Nevertheless, problems may appear in the necessary process of coordination, making this solution weaker than that of budgetary support. On the other hand, the system with national funds could make it possible to short-cut several levels of public administrations through establishing direct relations to the local level where the REDD+ actions take place. Finally, national funds can also be instituted in a way freeing the administration from rigid bureaucratic rules – see also Rosenbaum and Lindsay (op. cit.).

It is generally argued that earmarking reduces efficiency. This is the main argument from ministries of finance against setting up funds (Landell-Mills op. cit.; Rosenbaum and Lindsay op. cit.). It is also argued that to the extent that funds are based on revenues from the sale of forest products, some incentive problems may appear as the administration of the funds becomes interested in expanding logging simply for revenue reasons. These kinds of arguments have much less validity in our case as money will flow from the international community for the defined purpose of reducing carbon emissions.

Lastly, concerning co-benefits, the capacity of national funds comes close to that of budget support. It is a bit weaker concerning cross-sectoral coordination. It could, however, be argued that the fund model makes it easier to institute specific liability for taking on wider responsibilities – i.e., responsibility for biodiversity protection and poverty alleviation.

In relation to the above, the only in-depth assessment of a forest fund we have found in our quite extensive literature search concerns the evaluation of the Indonesian reforestation fund (Barr et al. 2010). Their analysis is quite critical, especially of the Soeharto period, showing how a substantial part of the money available was diverted away from the purpose of reforestation. Substantial resources even ended up in private accounts belonging to public officials. We think, however, that the experiences here are more relevant as a caution against what may happen in the case of a corrupt political regime than being informative about forest funds *per se*. In relation to that, it should be noted that Rosenbaum and Lindsay (op. cit.) classify the Indonesian fund as an ‘accounting device’. It was not managed by a separate board, but by ministries – first directly by the Ministry of Forestry, later through a combined solution also involving the Ministry of Finance.¹⁴ Hence, it is very different from the kind of fund we have in mind for REDD+. It should also be noted that the anti-corruption policies put in place after the fall of Soeharto – especially under the present president Yudhoyono – has resulted in substantial progress, while the general assessment of Barr et al. (op.cit.) is that the country still has quite a way to go. What

¹⁴ The IMF required a change in the control as one of its demands for giving financial support to the post-Soeharto regime established after the financial crisis in South-East Asia in the late 1990s (Barr et al. 2010).

seems ‘sorted out’ so far is mainly related to the larger cases to be handled by the special Corruption Eradication Commission and not those going through the normal judicial institutions. In the latter case much reform seems still to be needed.¹⁵

¹⁵ The Norwegian Embassy in Jakarta notes in relation to the newly established Norway-Indonesia REDD+ Partnership (May 2010) that “Indonesia has a very good track-record of managing foreign donor funds under President Yudhoyono. The Aceh and Nias Rehabilitation and Reconstruction Agency (BRR) established after the 2004 tsunami managed around US\$ 7 billion of foreign donor funds in line with the best international standards” (Royal Norwegian Embassy in Jakarta 2010). Whether this implies that the situation is different for foreign donor money as opposed to nationally originated funds, is not clear – cf. the criticism of Barr et al. (2010). It may also reflect what the position of the Norwegian authorities ‘must be’ after signing an agreement with a foreign government. We do not have independent information that can verify which evaluation is the best.

6. DISCUSSION

The above analyses do not give any decisive arguments in favor of one single solution. While Table 2 offers a brief summary of some ‘generic’ findings, it should be noted that the choice of solution must also depend on the local conditions or contexts in each case – especially the political culture, which present institutions are in place, and the relative importance of REDD+ in the actual country.

Table 2. Comparison of REDD+ governance structures

System Criteria	Projects/market based system	Separate national funds	Funds in state administrations	Budgetary support
Overall political legitimacy	High legitimacy among private sector, but if REDD+ resources grow large, concerns appear for hosting states; democratic ‘deficit’. Issues concerning transparency and accountability. Vulnerable to corruption	Fairly high legitimacy among all core actors. If REDD+ grows large, an issue with the lack of control by hosting state – i.e., issues concerning accountability. Good on transparency. Somewhat vulnerable to corruption	High legitimacy among hosting state. Somewhat lower among private sector. Good on transparency and accountability. Somewhat vulnerable to corruption	High legitimacy among hosting state. Lower among private sector. Good on accountability (regime dependent), but issues concerning transparency. Vulnerable to corruption
Effectiveness	Strong attraction of private funding, but REDD+ may have problems with competing for these funds. Weak on leakage, additionality, permanence and coordination across sectors	Good attraction of funding – best from public. Medium strong on leakage. Fairly good on permanence. Issues on additionality. Rather weak on sector coordination	Attraction of private funding depends on international regime. Rather strong on leakage and permanence. Issues on additionality. Fairly good on sector coordination	Attraction of private funding depends on international regime. Rather strong on leakage. Issues on additionality. Issues concerning permanence. Rather strong on sector coordination
Efficiency	Cost-efficient REDD+ investments. Relative high on transaction costs.	Fairly good capacity to keep transaction costs down	Good potential to keep transaction costs down. Issues concerning most low cost REDD+ options	Good potential to keep transaction costs down, but depends on administrative structure. May not ensure most low cost REDD+ options
Capacity to deliver co- benefits	Expected to be weak on poverty alleviation. Weak also on biodiversity protection if in conflict with cheap carbon mitigation options	Has capacity to deliver co-benefits, but demands special control and attention in statutes.	Relative strong capacity to deliver on co-benefits, but demands special control and attention in statutes.	Relative strong capacity to deliver on co-benefits, but demands special control and attention in agreements.

According to our analysis the market/project based system seems to be the weakest alternative for a national REDD+ architecture. Its main attractiveness lies in its capacity to attract private funding. Dependent on the international architecture, this argument may not be valid. If REDD+

resources are distributed through an international fund offering CERs, the other solutions will be equally strong in this respect. The only type of funding where there may be a difference concerns private voluntary payments. The potential to find cost-effective REDD+ options is also an argument for this solution. It does, however, not compensate for the weaknesses found concerning leakage, permanence, coordination across sectors, high transaction costs, and the expected weak delivery on co-benefits.

In relation to this, one should note that there has been a general trend towards increased use of markets in areas that earlier were thought of as typically public responsibilities – what is often called the neoliberal trend. This ideological orientation has influenced major players in the donor world, like IMF, the World Bank, and even UN organizations. We think that it is especially important to rethink the capacities of this solution not least in a REDD+ context.

Concerning the other three options, local conditions are of great importance for the choice. We find that the arguments for funds in state administration and budgetary support are quite strong compared to that of separate national funds regarding several important dimensions like accountability/democratic processes, transaction costs, coordination across sectors, capacity to avoid leakage and co-benefits. We find the issue of accountability/democratic processes the most important of the above. If REDD+ becomes large, it seems problematic to establish a system for combating deforestation and forest degradation that is fully separated from the state decision and administrative bodies. Note also that in many of the actual countries, forests are dominantly owned by the state (e.g., Siry et al. 2009). Concerning leakage, none of the proposed systems can avoid leakage across national borders. This is an issue that has to be treated at the international level.

The main argument for funds outside the state administration compared to national funds and budget support is again the capacity to attract private funding. As before, this is an argument that holds only under certain assumptions about the international REDD+ architecture. What is left as arguments for this solution is the ability to attract voluntary funding, the capacity to set up systems that do not depend on rigid bureaucratic rules of state administrations, and the potential to better handle corruption. Certainly, in countries where corruption is very strong in the state administration, the latter may be a robust argument. Similarly, in a situation with a rigid bureaucracy, using the present administration may not result in reduced transaction costs compared to separate funds despite the fact that a parallel system to reach receivers of funds must be developed. In relation to both the above arguments one should note that a solid REDD+ program offers the opportunity to combat corruption and ‘trimming’ state bureaucracy. Certainly, which argument is the strongest will depend on the specific situation, not least the willingness of the present government to engage in reforms of its administration.

Turning to budgetary support vs. funds in the state administration, the arguments for the former are mainly related to accountability/democratic processes and capacity to coordinate across sectors. The fund solution seems to offer better possibilities to increase transparency, ensure permanence and combat corruption where necessary. It may also – like separate funds – be organized in ways that avoid some of the (necessary) rigidities for standard state administrations. Finally, it may be easier for external donors to formulate stronger conditions if the fund solution

is used as compared to paying via state budgets. Nevertheless, we think that one should try to establish solutions that avoid creating hostility among the hosting governments.

REDD+ is a demanding endeavor. Independent of the solutions chosen, there are tremendous needs for capacity building. This concerns building participatory systems, necessary local institutions including perhaps the clarification of property rights, establishing principles for distribution of funds, and the development of various technical competencies not least in MRV.

Independent of the governance system chosen, there are great challenges concerning the involvement of local communities. While forests are dominantly state owned, forests are to a large extent used and managed by local communities. Phelps et al. (2010) see a great danger in that REDD+ will force centralization. Over the last 2-3 decennia forest management in developing countries has followed a trend of decentralization. If REDD+ turns this 'tide', much of this positive development will be lost. Hence, independent of which governance structure is chosen, a strong focus on the way regional and local stakeholders are empowered and included in the REDD+ process is necessary. In this lies also a fear that REDD+ can be very detrimental for the poorest segment of the rural population. None of the discussed solutions in this paper will automatically guard against such an outcome. A strong and enduring focus on this problem is warranted.

Similarly, all the systems discussed above are vulnerable to corruption. REDD+ will most probably push vast amounts of money into developing countries. This will by 'necessity' attract organizations and individuals that are after the money rather than supporting REDD+. Again, a strong and enduring focus on this problem is warranted. Given the amount of resources in REDD+, it could, however, be used to help turn the tide. REDD+ would represent resources to a magnitude that actually might make reforms in e.g. forest administrations possible.

7. CONCLUSION

REDD+ is becoming a very important initiative not only for future climate policy, but also for living conditions for the forest populations of most developing countries. The goals set for REDD+ and the way it is organized will have decisive impacts on its capacity to deliver both reduced carbon emissions and improved local livelihoods.

Governance deals with both the making of social priorities and setting up structures to attain these goals – i.e. which type of actors are involved, including their competencies and responsibilities and what structures exist for facilitating the interaction/coordination between them. In this paper we have analyzed four options for organizing national REDD+ governance systems: a) a purely market/project based architecture; b) a system with national REDD funds outside existing national administrations; c) a national REDD fund organized under the present national administration; and d) conditional budget support. We have moreover emphasized four criteria for the evaluation: i) overall political legitimacy; ii) effectiveness; iii) efficiency; and iv) capacity to deliver on co-benefits (poverty alleviation and biodiversity protection).

While no existing governance system can be taken as a template for REDD+, several initiatives exist that offer insight into how different formats of a national REDD+ architecture may function. In evaluating the four options defined, we have therefore used data from evaluations of the Clean Development Mechanism, of payments from environmental services projects, of conservation trust funds, of national forest funds, and finally of conditional budget support.

While a solution with a market/project based structure has been favored by many scholars and by many actors participating in the negotiations for a post-Kyoto regime, we conclude that this is actually the most problematic of the four alternatives studied. It comes out as rather weak on most criteria. Concerning the other three alternatives, the national/local conditions including the size of REDD+ in the national context will be of importance. We conclude that if REDD+ involves a large part of a county's forested area, it is necessary to establish a good link to the general forest policy. Hence, a national REDD fund organized under the present national administration, or conditional budget support, seems favorable. There are several other arguments also in favor of these two solutions including national political legitimacy, sector coordination, and to some extent capacity to combat leakage and keep transaction costs low.

It has been argued that the market/project based solution is superior due to the greater capacity to raise private funds. We argue that this is an artifact of a restricted institutional analysis. If one establishes an international fund through which REDD+ finances are channeled, this fund can be authorized to issue certified emission reductions (CERs) sold to firms with reduction responsibilities. This will remove the potential differences between the systems analyzed here concerning that issue.

All systems are vulnerable to corruption. REDD+ will represent vast resources and attract interests that are more focused on the money than the goals of REDD+. Hence, separate monitoring, reporting and verification systems need to be established independent of the main structure chosen. It should be noted though that the two fund based solutions seem to have some

advantages in this respect and one might want to choose one of these if there are large problems in the present political administration.

Similarly, there is reason to worry about co-benefits. REDD+ is focused on carbon emissions and none of the above systems will automatically ensure that co-benefits are also delivered. We have observed that these systems have different capacities to do so, however. It will nevertheless be necessary to institute separate rules and control systems to ensure that delivery on co-benefits is strong. We find local participation with special emphasis on the rural poor to be a key response to this challenge.

REFERENCES

- Adams, W.M. and J. Hutton, 2007. *People, parks and poverty: political ecology and biodiversity conservation*. *Conservation and Society* 5(2):147-183.
- Angelsen, A. (ed.), 2008. *Moving ahead with REDD: Issues, options and implications*. CIFOR, Bogor, Indonesia.
- Barr, C., A. Dermawan, H. Purnomo and H. Komarudin, 2010. Financial Governance and Indonesia's Reforestation Fund during the Soeharto and post-Soeharto periods, 1989-2009. A political economic analysis of lessons for REDD+. Occasional paper 52. CIFOR, Bogor, Indonesia.
- Bayon, R., C. Deere, R. Norris and S.E. Smith, 1999. Environmental Funds: Lessons Learned and Future Prospects. <http://economics.iucn.org> (issues-20-01).
- Benjaminsen, T.A. and H. Svarstad 2010: The Death of an Elephant: Conservation Discourses Versus Practices in Africa. *Forum for Development Studies*, 37(3):385-408.
- Bäckstrand, K., 2006. Multi-stakeholder partnerships for sustainable development. Rethinking legitimacy, accountability and effectiveness. *European Environment*, 16(5):290-306.
- Booth, D., K. Christiansen and P. de Renzio, 2006. Reconciling Alignment and Performance in Budget Support Programs: What Next? In Koeberle, S., Z. Stavreski and J. Walliser (eds.): *Budget Support as More Effective Aid? Recent Experiences and Emerging Lessons*. The World Bank, Washington D.C., pp. 193-214.
- Bowles, S., 1998. Endogenous Preferences: The Cultural Consequences of Markets and Other Economic Institutions. *Journal of Economic Literature*, XXXVI (March):75-111.
- Brockington, D., Duffy, R. and J. Igoe, 2008. *Nature Unbound. Conservation, Capitalism and the Future of Protected Areas*. London: Earthscan.
- Butler, R., 2008. How to Save the Amazon Rainforest. http://news.mongabay.com/2009/0104-saving_the_amazon.html (Accessed online 10.06.2010)
- Checkel, J.T., 2000. *Compliance and Conditionality*. ARENA Working Papers WP 00/18. University of Oslo.
- Checkel, J.T., 2001. Why Comply? Social Learning and European Identity Change. *International Organization*, 55(3):533-588.
- Christensen, T. and P. Lægreid, 2007. The Whole-of-Government to Public Sector Reform. *Public Administration Review*, 67(6):1059-1066.
- Climatico, 2010. Copenhagen De-briefing. *An Analysis of COP 15 for Long-term Cooperation*. <http://www.climaticoanalysis.org/post/copenhagen-de-briefing-an-analysis-of-cop15-for-long-term-cooperation/>
- Cosbey, A., J.-E. Parry, J. Browne, Y. D. Babu, P. Bhandari, J. Drexhage and D. Murphy, 2005. *Realizing the Development Dividend: Making the CDM Work for Developing Countries*. International Institute for Sustainable Development, Winnipeg.
- Dahlman, C.J., 1979. The Problem of Externality. *The Journal of Law and Economics*, 22:141-162.
- Eraker, H., 2000. *Keiserens nye trær - om norske treplantasjer, CO₂-kvoter og nykolonialisme i Uganda*. NorWatch Rapport 5. Framtiden i våre hender.
- Fontaine, R.G., 1961. National Forestry Funds. *Unasylva*, 15(4): non-paginated. <http://www.fao.org/docrep/x5401e/x5401e04.htm>
- GEF, 1998. GEF Evaluation of Experience with Conservation Trust Funds. GEF Council, Washington D.C.

- Hutton, J. M., W. M. Adams and J. C. Murombedzi, 2005. Back to the barriers? Changing narratives in biodiversity conservation. *Forum for Development Studies* 2:341–370.
- IDD and Associates, 2006. *Evaluation of General Budget Support: Synthesis Report*. International Development department, University of Birmingham, Birmingham U.K.
- IPCC, 2007. *Climate Change 2007: Impacts, Adaptation and Vulnerability. Summary for Policy-makers*. IPCC AR4.
- Karousakis, K. and J. Corfee-Morlot, 2007. *Financing Mechanisms to Reduce Emissions from Deforestation: Issues in Design and Implementation*. OECD/IEA, Paris.
- Killick, T., 1997. Principals, agents and the Failings of Conditionality. *Journal of International Development*, 9(4):483-495.
- Koeberle and Stavreski, 2006. Budget Support: Concepts and Issues. In Koeberle, S., Z. Stavreski and J. Walliser (eds.): *Budget Support as More Effective Aid? Recent Experiences and Emerging Lessons*. The World Bank, Washington D.C., pp. 3-26.
- Koeberle, S., H. Bedoya, P. Silarsky and G. Verheyen, 2005. *Conditionality Revisited. Concepts, Experiences, and Lessons*. The World Bank, Washington D.C.
- Kerr, S., L. Lipper, A.S.P. Pfaff, R. Cavatassi, B. Davis, J. Hendy and A. Sanchez, 2004. *Will Buying Tropical Forest Carbon Benefit The Poor? Evidence from Costa Rica*. ESA Working Paper No. 04-20
- Landell-Mills, N., 1999. *Financing sustainable forestry: a review of international experience*. http://cameroun-foret.com/fr/system/files/18_61_63.pdf
- Lawson, A., D. Booth, M. Msuya, S. Wangwe and T. Williamson, 2005. *Does General Budget Support Work? Evidence from Tanzania*. Overseas Development Institute, London.
- Leach, M., G. Bloom, A. Ely, P. Nightingale, I. Scoones, E. Shah, and A. Smith 2007. *Understanding Governance: pathways to sustainability*, STEPS Working Paper 2, Brighton: STEPS Centre.
- Lemos, M.C., and A. Agrawal, 2006. Environmental Governance. *Annual Review of Environmental Resources*, 31:297-325.
- Lloyd, B. and S. Subbarao, 2009. Development challenges under the Clean Development Mechanism (CDM). Can renewable energy initiatives be put in place before peak oil? *Energy Policy*, 37(1):237-245
- Lipper, L. and R. Cavatassi, 2004. Land Use Change, Poverty and Carbon Sequestration, *Environmental Management*, 33(S1):374-387.
- Luiz, J.M., 2009. Institutions and economic performance: Implications for African development. *Journal of International Development*, 21: 58–75.
- March, J.G. and J.P. Olsen, 1995. *Democratic Governance*. New York: The Free Press.
- Meridian Institute, 2009a. *Reducing Emissions from Deforestation and Forest Degradation (REDD): An Options Assessment Report*. Prepared for the Government of Norway, by A. Angelsen, S. Brown, C. Loisel, L. Peskett, C. Streck and D. Zarin. http://www.REDD-OAR.org/links/REDD-OAR_en.pdf.
- Meridian Institute, 2009b. REDD+ Institutional Options Assessment. Developing an Efficient, Effective and Equitable Institutional Framework for REDD+ under the UNFCCC. Authors: C. Streck, L. Gomez-Eccheverri, P. Gutman, C. Loisel, J. Werksman. http://www.redd-oar.org/links/REDD+IOA_en.pdf
- Milder, J.C., S.J. Scherr and C. Bracer, 2010. Trends and Future Potential of Payment for Ecosystem Services to Alleviate Rural Poverty in Developing Countries. *Ecology and Society*, 15(2):4. URL: <http://www.ecologyandsociety.org/vol15/iss2/art4/>

- Nakakaawa, C., P. Vedeld and J. Aune, unpublished. *Issues related to forests and carbon in Uganda*. PhD work. Noragric, Norwegian University of Life Sciences.
- Neeff, T., L. Ashford, J. Calvert, C. Davey, J. Durbin, J. Ebeling, T. Herrera, T. Janson-Smith, B. Lazo, R. Mountain, S. O'Keeffe, S. Panfil, N. Thorburn, C. Tuite, M. Wheeland and S. Young, 2009. *The forest carbon offsetting survey 2009*.
<http://www.ecosecurities.com/Registered/ECOForestrySurvey2009.pdf>.
- OECD, 2007. Aid targets slipping out of reach?
<http://www.oecd.org/dataoecd/47/25/41724314.pdf>.
- Olsen, K. H., 2007. The Clean Development Mechanism's Contribution to Sustainable Development: A Review of the Literature. *Climate Change*, 84(1):59–73.
- Olsen, K. H. and J. Fenhann, 2008. Sustainable development benefits of clean development mechanism projects. A new methodology for sustainability assessment based on text analysis of the project design documents submitted for validation. *Energy Policy*, 36(8):2819–2830.
- Ostrom, E., 2009. *A Polycentric Approach to Coping with Climate Change*. Background paper to the 2010 World development Report. Policy Research Working Paper 5095. The World Bank, Washington D.C.
- Phelps, J., E.L. Webb and A. Agrawal, 2010. Does REDD+ Threaten to Recentralize Forest Governance? *Science*, 328:312-13.
- Pierre, J. and B.G. Peters, 2000. *Governance, Politics and the State*. London: Sage Publishers.
- Robbins, P., 2000. The rotten institution: corruption in natural resource management. *Political Geography*, 19:423–443.
- Robledo, C. and W.O. Ma, 2008. Why there are so few forestry projects under the Clean Development Mechanism". *ITTO Tropical Forest Update*, 18(3):3-5.
- Royal Norwegian Embassy in Jakarta, 2010. *Norway-Indonesia REDD+ Partnership*.
http://www.norway.or.id/Norway_in_Indonesia/Environment/-FAQ-Norway-Indonesia-REDD-Partnership-/ (Accessed online 03.08.2010)
- Rosenbaum, K.L. and J.M. Lindsay, 2001. *An Overview of National Forest Funds: Current Approaches and Future Opportunities*. FAO, Rome.
- Rørstad, P.K., A. Vatn, V. Kvakkestad, 2007. Why do transaction costs of agricultural policies vary? *Agricultural Economics*, 36:1-11.
- Saunders, J., J. Ebeling and R. Nussbaum, 2008. *Reduced Emissions from Deforestation and Forest Degradation – Lessons from a forest governance perspective*. Proforest, Oxford.
<http://www.proforest.net/publication-objects/REDD%20and%20Governance.pdf>.
- Schneider, L., 2007. *Is the CDM fulfilling its environmental and sustainable development objectives? An evaluation of the CDM and options for improvement*. Report prepared for WWF, Berlin. <http://www.oeko.de/oekodoc/622/2007-162-en.pdf>.
- Sikor, T. (ed.), 2008. *Public and Private in Natural Resource Governance. A false dichotomy?* London: Earth Scan.
- Siry, J., F.W. Cabbage and D.H. Newman, 2009. *Global Forest Ownership: Implications for Forest Production, Management, and Protection*. Paper presented at the XIII World Forestry Congress Buenos Aires, Argentina, 18 – 23 October 2009. http://www.cfm2009.org/es/programapost/resumenes/uploads/global_forest_ownership_FD.pdf.
- Smith, J. K. Obidzinski, Subarudi, I. Suramenggala, 2003. Illegal logging, collusive corruption and fragmented governments in Kalimantan, Indonesia. *International Forest Review*. 5, 293–302

- Sovacool, B.K. and M.A. Brown, 2009. Scaling the policy response to climate change. *Policy and Society*, 27:317–328
- Spergel, B. and P. Taïeb, 2008. *Rapid Review of Conservation Trust Funds*. Conservation Finance Alliance. Second Edition.
- Spergel, B. and M. Wells, 2009. Conservation trust funds as a model for REDD+ national financing. In Angelsen A. (eds): *Realising REDD+: National Strategy and Policy options*. Bogor, Indonesia: CIFOR, pp. 75-83.
- Starke, L., 1995. *Environmental Funds: The First Five Years*. (Commissioned by UNDP/GEF for the Interagency Planning Group on Environmental Funds), New York: Interagency Planning Group.
- Stenslie, E., 2010. *The role of carbon offsets in reducing emissions and contributing towards sustainable development. Can REDD as a market based carbon offset mechanism generate carbon emission reduction projects with biodiversity and livelihood benefits?* Master thesis, Department of International Environment and Development Studies, Norwegian University of Life Sciences.
- Stern, N., 2007. *Stern Review on the Economics of Climate Change. Executive Summary*. HM Treasury, London.
- Sutter, C., 2003. *Sustainability check-up for CDM projects. How to assess the sustainability of international projects under the Kyoto Protocol*. Berlin: Wissenschaftlicher Verlag.
- Svensson, J., 2003. Why conditional aid does not work and what can be done about it? *Journal of development Economics*, 70:381-402.
- The Economist, 1999. *The bumpy ride of Joe Stiglitz*. Vol. 353(8150):125 (anonymous).
- Thomas, S., P. Dargusch, S. Harrison and J. Herbohn, 2010. Why are there so few afforestation and reforestation Clean Development Mechanism projects? *Land Use Policy*, 27:880–887.
- Trumper, K., M. Bertzky, B. Dickson, G. van der Heijden, M. Jenkins, P. Manning, 2009. *The Natural Fix? The role of ecosystems in climate mitigation. A UNEP rapid response assessment*. United Nations Environment Programme. UNEP-WCMC, Cambridge, UK.
- UNEP, Risoe Centre, 2010. CDM projects by type. <http://www.cdmpipeline.org/cdm-projects-type.htm> (Accessed online 12.06.2010).
- UNFCCC, 2009. CDM projects location. Map. <http://cdm.unfccc.int/Projects/MapApp/index.html> (Accessed 13.07.2010).
- UN-REDD Programme, 2010. About the UN REDD Programme. <http://www.unredd.org/AboutUNREDDProgramme/tabid/583/language/enUS/Default.aspx> (Accessed online 03.08.2010).
- Vatn, A., 2005. *Institutions and the Environment*. Cheltenham: Edward Elgar.
- Vatn, A., 2009. Cooperative behavior and institutions. *Journal of Socio-Economics*, 38:188-196.
- Vatn, A., 2010. An Institutional Analysis of Payments for Environmental Services. *Ecological Economics*, 69:1245-1252.
- Vatn, A. and A. Angelsen, 2009. Options for a national REDD+ architecture. In Angelsen A. (ed.): *Realising REDD+: National Strategy and Policy options*. Bogor, Indonesia: CIFOR, pp. 57-74.
- Vatn, A., P. Vedeld, J.G. Petursson and E. Stenslie, 2009. *The REDD direction. The potential for reduced carbon emissions, biodiversity protection and increased development. A desk study with special focus on the situation in Uganda and Tanzania*. Noragric Report no 51, 127 pp.
- Vedeld, P., A. Angelsen, J. Bojö, E. Sjaastad and G. Kobugabe Berg, 2007. Forest environmental incomes and the rural poor. *Forest Policy and Economics*, 9(7):869-879.

- Vedeld, P. 2002. *The Process of Institution-building to Facilitate Local Biodiversity Management*. NORAGRIC Working Paper. No.26, NLH. 32 p.
<http://www.umb.no/noragric/publications/workingpapers/noragric-wp-26.pdf>
- Venter, O., W.F. Laurance, T. Iwamura, K.A. Wilson, R.A. Fuller, H.P. Possingham, 2009. Harnessing Carbon Payments to Protect Biodiversity. *Science*, 326:1368.
- Wara, M., 2007. Is the global carbon market working? *Nature*, 445(8): 595–596.
- Wara, M. W. and G.V. David, 2008. *A realistic policy on international carbon offsets*. Stanford University Program on Energy and Sustainable Development, Working Paper #74.
- Wertz-Kanounnikoff, S., M. Kongphan-Apirak and S. Wunder, 2008. *Reducing forest emissions in the Amazon Basin. A review of drivers of land-use change and how payments for environmental services (PES) schemes can affect them*. Working paper no 40. Bogor: CIFOR
- Williamson, O.E., 1985. *The Economic Institutions of Capitalism*. New York: Free Press.
- World Bank, 2010. *Forest Carbon Partnership Facility*.
<http://www.forestcarbonpartnership.org/fcp/node/11>. (Accessed online 10.06.2010).
- Wunder, S., 2008. How to deal with leakage? In Angelsen, A. (ed.), 2008. *Moving ahead with REDD: Issues, options and implications*. CIFOR, Bogor, Indonesia, pp. 65-75.
- Wunder, S., S. Engel and S. Pagiola. 2008. Taking stock: A comparative analysis of payments for environmental services programs in developed and developing countries. *Ecological Economics*, 65(4): 834-852.