REDD+ a Clumsy Solutions to a Complex problem: How Cultural Theory can Aid the Emerging REDD+ Governance Architecture

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Abstract[1]

Reducing Emissions from Deforestation and forest Degradation (REDD+) has emerged as one of the most anticipated governance mechanism within the climate change regime. REDD+ is perceived to establish incentives for developing countries to protect and better manage their forest resources, by, basically, paying forest owners to not cut down tress. However, REDD+ has proven to be highly problematic for decision makers to agree on. REDD+ negotiations at the UN climate summits (UNFCCC) have been hampered by the complexities of issues on REDD+ and disagreements on core issues. Moreover, mounting skepticism and critique has emerged in the academic literature and amongst especially indigenous groups and NGOs pointing to a lack of inclusiveness in the policy process, but also private sector actors are turning their thumps down. To explore the failures of REDD+ we will apply a Cultural Theory (CT) framework. CT argues that there are four general ways of organizing, justifying, and perceiving social relations (world-views), and that efforts to resolve complex problems, such as REDD+, that are not based on all four world-views threatens the effectiveness and robustness of the policy outcomes. Instead successful efforts to resolve the complex issues of REDD+ need to be a creative, flexible mixes of these four ways world-views. This paper will test the relevance of this core CT hypothesis in the case of REDD+ and investigate how CT can provide guidance for future policy-making on REDD+. In this paper we apply a literature review, and analyze how the different world-views would view REDD+. In addition, we take a closer look at the debates on social safeguards and market based mechanisms to analyze whether a particular world-view is dominant. The results shows that although the policy process of REDD+ may be perceived as having a high degree of plurality in terms of including the several of the active world-views, this study demonstrates that REDD+, as an idea and the way it is being implemented, is dominated by one world-view (hierarchy). The dominance of hierarchical world view in understanding, justifying, and shaping REDD+ polices has clear impacts on the REDD+ governance mechanism. The affect of this is that REDD+ is leaving out valuable knowledge and perspectives on shaping its policies and is consequently heading for failure. The study also provides insights, based on CT, into how this fate may be adverted by facilitating a more inclusive policy debate that fully embraces the views of all four world-views.

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Introduction

Governing tropical rain forests to fight climate change has been a core debate at the UNFCCC since the topic reentered the international scene in 2005. The proposed route so far has been the policy mechanism called Reducing Emissions from Deforestation and forest Degradation (REDD+). The exact character of a REDD+ mechanism is still being negotiated, but there is wide agreement that it should consist of performance-based payments that compensate for the opportunity costs of avoiding deforestation. REDD+ is framed as establishing incentives for developing countries to "protect and better manage their forest resources, by creating and recognizing a financial value for the additional carbon stored in trees or not emitted to the atmosphere" (Corbera and Schroeder 2011:89).

The theory of plural rationality also known as Culture Theory (CT) investigates reasons for why actors take up conflicting views on complex issues like climate change or reducing tropical deforestation and degradation. The basic notion is that there are underlying rationales, world-views that groups, societies or individuals adhere to when face with a 'wicked problem' such as climate change or deforestation as we argue in this paper. Wicked problems can be defined as imperfectly understood problems that do not have widely agreeable objective solutions (see Rittel and Webber 1973). Wicked problems stand in marked contrast to 'tame' problems, such as phasing out ozone depleting gasses where a single agreed definition leads, without upset, to a similarly singular solution (see (Verweij 2011; Prins & Rayner 2007). When it comes to deforestation, the great variety of literature and policy recommendation indicate that there is no clear silver bullets for REDD+ to be based on. Indeed, the different voices on REDD+ shows us that facts and values are not clearly distinguishable entities when it comes to the scientific basis for REDD+ (Hiraldo and Tanner 2011). Instead, we argue that different world-views influence what we accept as facts and which arguments we are more persuaded by and that this perspective has a grater relevance for understanding the conflicting REDD+ debates. These world-views influence the way we perceive the problem and solutions to complex and messy issues which are imperfectly understood and do not have widely agreeable objective solutions (such as phasing out ozone depleting gasses). However, in contrast to a strictly post-positivist view, CT argues there are just four basic world-views and combinations of these provide the endless ways that our societies organize and justify social relations and actions on certain issues (Verweij et al. 2006). These four different world-views influence how we understand the issues of deforestation, what tools we think are most adequate to reduce deforestation, e.g. mitigating climate change, making it a good business, or enhancing rights of local populations. We all have these world-views and we all use them in different contexts. They are part of the reason why

different people have very different interpretations of what REDD+ is or should be like and this has profound implications for how a future REDD+ mechanism will look like.

A core hypothesis of CT argues that efforts to resolve pressing social ills, such as REDD+, that are not based on all four world-views threatens the effectiveness of the policy outcomes. Instead, efforts to resolve the complex issues of REDD+ need to be a creative, flexible mixes of these four world-views. This paper will test the relevance of this core CT hypothesis in the case of REDD+ and investigate how CT can provide guidance for future policy making on REDD+. By testing the key hypothesis of CT, we build on a collection of similar case studies each, qualitatively tests the same hypotheses as for this study. Using CT, Marco Verweij (2006) has shown how the Kyoto Protocol (KP) and indeed the response of the UNFCCC has been very closely linked to only one world view (hierarchy). This paper demonstrates that with REDD+ the UNFCCC is making the same mistakes all over again, namely addressing deforestation as a tame rather than wicked problem and applying a monolithic rather than a plural set of policies. As with the UNFCCC efforts to combat climate change at large, REDD+ is fatally flawed and unless redeemed will eventually end in failure.

Clumsy solutions

The normative element of CT is that as each world view represents some of the populace to enhance the legitimacy of REDD+, all world-views must be represented in the final policy mechanism. Each world-view distills a certain elements of experience and wisdom that are missed by others (Beck et al. 2011; Verwej et al. 2006). Solutions that are based on plurality are also more robust and better able to adapt. CT calls these solutions that include all or at least the three active voice clumsy solutions. They are ‘clumsy’ because you cannot plan them before hand, they have to unfold as the process goes a long and the different world-views influence the policy process. Clumsy solutions is the sate of affairs in which each of the three active voices – individualism, egalitarianism and hierarchy (see next section) is able to make itself heard (accessibility) and is then responsive to the others (responsiveness) (Ney 2009). The aim of making policy process more ‘clumsy’ is not to seek out the best compromise or consensus. Clumsy solutions emerges from a messy, noisy and argumentative process: a constructive engagement between the three "active" ways of organizing: hierarchy, individualism and egalitarianism (Thompson and Verweij 2006).[2] Clumsy solution is a synergetic

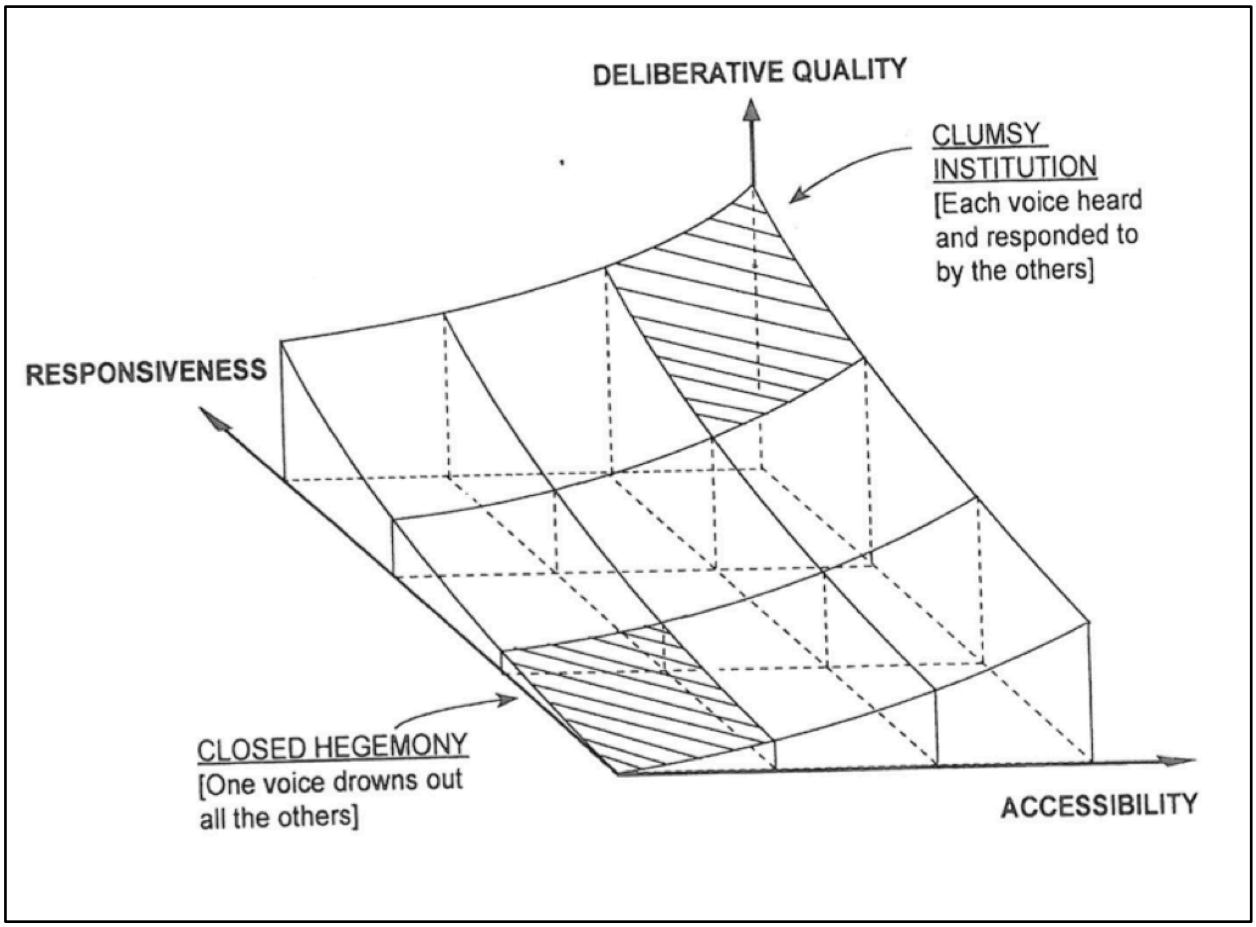
[2] Fatalism is involved in a "passive" way, becoming ever more extensive as one or more of the active ways are excluded and shrinking when things shift towards clumsiness.

solution where each voice ends up getting more out of it then even if it had somehow managed to achieve "hegemony" and go it alone (Thompson 2011:14).

"…each way of organizing ultimately needs the others, because they do something vital for it that it could never do for itself. Indeed, this sort of dependency does not have to be mutual; it is enough if each way does something vital for just one of the others and no one of them is left out." (Thompson 1996:16).

The notion of clumsy solutions also adds a deliberative quality to a policy process as each world-view provides a "clear expression of the way in which a significant portion of the populace feels we should live with one another and with nature (Besck et al. 2011:135). Only innovative combinations of economic rational, bureaucratic measures, technological progress, as well as considerations of equity, ethics and sustainability, can be successful (Thompson and Verweij 2006) and justifiable to a larger range of actors. Figure 1, illustrates the level of plurality (or clumsiness) of a policy subsystem.[3]

Figure 1 (Deliberative quality of policy subsystems)



(*Ney 2009)*

[3] This is basically a refurbishment of Dahl's theory on pluralist democracy (Dahl 1989), where a plicy subsystem can be mapped according to the level of accessibility and responsiveness of each world-view (Ney 2009).

Method and structure of paper

We start out our analysis with a literature review, demonstrating what we add to the existing critical literature on REDD+. The we analyze the policy narratives of REDD+ and how they match the four CT world-views. Our study indicates that the idea of REDD+ is very much anchored in the hierarchical world view. To further illustrate this a second analysis takes a narrower analysis of two specific REDD+ policy story-lines, social safeguards and a market based rationale. Here we use the CT framework to further asses how REDD+ is dominated by a single world-view by assessing how in the context of REDD+ social safe guards and the market rationale are based on a hierarchical world-view. The data collection is based on literature review, interviews with protagonist and observations from 2011 climate negotiations at the UNFCCC COP-17 in Durban. The paper will then finish off by providing a CT based normative argument for how the failure of REDD+ can be adverted.

Literature review

There is a growing forest of literature on the governance of REDD+ (see for example the two special issues by: Corbera and Schroeder (2011), and by Larson and Petkova (2011)). Predominately the literature centers on the complexities of governance and implementation of REDD+. More specifically, the governance literature looks into different ways to improve REDD+, by analyzing: models for carbon payments to communities, methodological analysis of past and current experiences, and the dilemmas of carbon accounting and monitoring, to name a few. However, while the articles relay some strong criticisms about REDD+ by warning, for example, that the "emphasis on carbon emissions under REDD+ could also lead to bureaucratic management that parallels that of logging permits rather than promoting the multiple values of forests" (Larson et al. 2011: 98). Most of the articles seem to ignore their own findings by concluding that REDD+ is a good option as a tool to addressing climate change and deforestation, but needs to be fixed and improved (Cabello and Gilbertson 2012). Hence, the literature takes the rational behind REDD+ for granted and looks at how it can be improved. It does not question nor attempt to unpack the underlying rationales of REDD+. However, there is a second group of literature which takes a more discursive based approach to analyze REDD+ (see Hiraldo and Tanner 2010; Arts et al. 2010; Cabello and Gilbertson 2012; Stephan 2012; Nielsen in press). This paper falls into this group by unpacking underlying assumptions behind REDD+ (see next section). However, it also attempts to deliver a normative analysis of how to improve the forest conservation (and mitigation) by exploring alternatives to

REDD+. Hence, this paper provides both the critical insights on the influences of underlying rationales (discourses) and the normative aspirations of the first mentioned literature. CT may share a lot of the critical views on REDD+, however unlike much of the discourse based criticism (Ste, CT does not share the view that capitalism, neo-liberalism (individualism) is all what is wrong with REDD+ (see Cabello and Gilbertson 2012; Stephan 2012). The problem is when certain meta-discourses (world-view) become hegemonic. If it was the other way round, CT would be equally critical if REDD+ was dominated by a egalitarian discourse (egalitarianism).

REDD+ narratives

The individualist narrative

Individualists typically regard nature as opportunistic, resilient, responsive and benign. A full-blooded individualist would argue that nature is very resilient and able to cope and recover from any exploitation and that deforestation or in a wider context climate change is not something to worry too much about (Verweij and Thompson 2006). Full-blooded individualism critiques REDD+ on the following points:

- Nature does not need to be cared for as it is ultimately benign and able to cope with human demand for its resources.
- Markets and technical innovation will, if need, find alternatives to key drivers of deforestation such as the production of soya and wood need for fire (all).
- Forests may be under pressure in developing countries, but the Kuznets curve[4] shows that the best tool to reduce deforestation is economic growth e.g. economic wealth will lead to a leveling out and eventually reduction of deforestation. Hence, economic growth should not be hampered by restricting access to natural resources, but is the best remedy for environmental problems.
- environmental conservation should foster market equilibrium and not produce economic distortions,[5] emphasizing cost-efficiency over equity. Market is ultimately the fairest distributor of benefits because its efficiency leads to maximizing of overall welfare (Cazorla and Toman 2000).
- The sustainable development goal as formulated by the Rio mantra, Our Common Future,[6] assumes that we know the needs of our future generations (which was arguably not the case 50 or a

[4] Identifies relationship between economic development and deforestation rates.

[5] Both at the local and global level, REDD+ is largely perceived to hinder economic growth (Angelsen 2012 (chapter 12)). Powerful economic and political actors involved in commercial agriculture, timber and mining see REDD+ as a threat to their interests (Brockhaus et al. 2012).

[6] "Meets the needs of the present without compromising the ability of future generations" (UN Commission on Economic Development 1987)

100 years ago). Pretending that we know what our demands are in the future and we can make realizable plans to cope with this demand is at best naïve. Demand for forest resources may decline in the future, which will render the efforts of REDD+ futile. Indeed sustainable development assumes an unsustainable future, which the individualism worldview rejects.

- REDD+ places restrictions on individual landowners from using their land as they have the right to do so. This is ultimately given the rights of landownership to someone else and conflicts with a central notion of individualism.

The following quotes exemplify different aspects of individualism:

"Exploiting natural resources creates wealth that can be used to answer a myriad needs… By maximizing knowledge, technology, and wealth today, we are ensuring in the most comprehensive manner that the (material needs) of tomorrow (many of which are unforeseen today) can be met." (Jerry Taylor (1994), director of natural resource studies at CATO Institute).

"…just like residents of Europe and the U.S. before them, residents in developing countries often have excellent reasons for cutting down trees… People in the developing world also often want to clear jungles to make way for more productive agricultural lands so they can feed their people. As economies grow, urban centers expand, further necessitating the need to cut down trees. (Nick Schulz, DeWitt Wallace fellow at American Enterprise Institute).

"Using cap-and-trade rather than simple voluntary incentives can make the difference between a program that reduces national emissions by 8% and costs $6.2 billion (USD), and a 26% reduction with $1 billion in revenue. A well-structured voluntary program could bring about a 22% reduction with $330 million in revenue." (Dr. Jonah Busch, 2012, forest economist for Conservation International).

"This is the first time potential emissions reductions from deforestation in Indonesia have been estimated using actual historical data on how deforestation varies with economic factors. Our analysis shows that the way REDD+ policies are designed can make a huge difference in achieving large-scale, cost-effective emissions reductions." (Dr. Ruben Lubowski, 2012, chief natural resource economist at Environmental Defense Fund

However, in the context of REDD+ the individualist narrative needs to 'modified' its views to fit the underlying assumption of REDD+, i.e. that the rate of deforestation needs to be reduced. From this perspective, the key problem of deforestation, for individualists is that the price of clearing forests does not reflect the costs. Hence, if the underlying cause of deforestation is that farmers, companies and other land users deforest land because non-forest uses such as agriculture, is more profitable than using the land for forests. This can be framed as a market failure, as the real price for deforesting is not evident, getting the price right is thus the basic solution. Hence, the logic would go, that if the true value of the environment were known, we would not degrade it as much.

State intervention is not the way to go, in fact it represents a major obstacle. Individualists are generally very skeptical of government lead subsidy, tax and pricing policies, which they see should be completely dismantled (Thompson, Rayner and Ney 1998b: 341). Instead, PES mechanisms, as

REDD+ are often framed as (see above), is more in agreement with individualism by putting a price on environmental services and acting in accordance with market rational. For individualism, market mechanisms are the best way to tackle deforestation, they can "signal the need to overcome scarcity, or to substitute resources, techniques and management styles when needs arise" (O'Riodan and Jordan 1999:86). Resonating with the views, individualist would agree with REDD+ needing to emphasize its cost effective approach to mitigating climate change (assuming that climate change is an issue). Advocates of this approach can be found in influential reports tying together economics and climate change by putting an economic value on ecosystem services. These include: the Stern Review 2006, the McKinsey's Global Greenhouse Gas Abatement Curve 2006, the Eliasch Review 2007, and The Economics of Ecosystems and Biodiversity (TEEB). All of which to some extent promoting reducing deforestation as cheap, easy and fast mitigation option (Angelsen 2012). Furthermore, a core message of individualism, which resonates with a core 'selling point' of REDD+ is the win-win situation between environmental protection and economic growth that REDD+ potentially offers (Thompson, Rayner and Ney 1998b: 341).[7]

"Curbing deforestation is a highly cost-effective way of reducing greenhouse gas emissions." (Stern Review (Executive Summary) 2006:xxxv)

"If we can make environmental protection profitable, people will invent all kinds of ways to make it happen." (Dr. Dan Dudek, Vice President, American Defense Fund)

"A central element ... will be the inclusion of the forest sector in global carbon markets. In doing so, the costs of reducing global carbon emissions will be reduced substantially, and lower costs will mean that a more ambitious overall emissions target will be possible." (Eliasch 2008:xii).

"REDD-plus provides an opportunity to address poverty-related drivers of deforestation both at the household level and at the institutional level by putting in place economic incentive-based programs and new resources." (World Bank's Forest Carbon Partnership Facility 2010: 5).

A second core element would be that humans are inherently self-seeking and atomistic (Verweij and Thompson 2006). The way to 'manage' REDD+ would be less top-down control but provide more autonomy to the individual REDD+ countries, regions and projects - hence the fewer restrictions the better. Trial and error would be the way to go about it rather that trying to get everything set to begin with, which is a more hierarchical approach. Compliance would to a large extent be left to Adam Smith's invisible hand of the market ensuring that people only do well when others also benefit. "The upholders of individualism cooperate until others give them reason not to and then retaliate in kind…" (Verweij et al. 2006:820). Likewise self-seeking also comes to play in terms of

[7] These reports, together with other proponents of a economic rational, have been argued to propel deforestation onto the international stage by offered an interesting (for decision maker) economic perspective (narrative) to an otherwise, somewhat, neglected topic (Agrawal 2005).

distribution of funds, which is a substantial issue in REDD+ negotiations. Individualist would not be in favor of a strong emphasis on equity, such as compensating the less off and not paying large logging companies to reduce their activities. They prefer a REDD+ mechanism that works close with the needs and demands of the market, and would allow national circumstances to dictate the implementation of REDD+ projects. Indeed, REDD+ would only be implemented on a voluntary bases and not dictated by the UN.

Moreover, individualism would see the role of the private sector as pivotal in REDD+. First of all, it offers technical innovation in solving issues connected to REDD+. Rather than all the issues being settled at international negotiations, private actors can resolve issues such as leakage or reference levels on an ad hoc bases following a more trial and error approach to getting the projects right. Secondly, individualism brings the logics of the market into the core thinking behind REDD+ (the business of conservation Hiraldo and Tanner 2011). With its proven innovative and resource allocation, the market would provide the best solutions to deforestation and forest degradation by internalizing environmental costs (Baker 2009). Furthermore, the carbon market is argued to be the only way to level the current billion dollar funding gab in REDD+.[8] Hence, without the private sector involvement and funding, there will be no REDD+, therefore REDD+ has to be allow for it to operate with least resistance.

"the magnitude of finances required for REDD+ (on the order of billions of dollars per year) requires the involvement of the private sector. Official development assistance alone will not be able to carry the weight. The question is therefore what will motivate the private sector to contribute to scale. The carbon market could provide one of these incentives." (Kossoy and Ambrosi 2010: 34)

To sum up, full-blooded individualism is in general not highly compatible with REDD+. Although there are some core elements of REDD+ that would agree with the worldview of individualism, such as reducing the rate of deforestation through PES schemes, having an important role of the private sector and the notion of delivering a win-win solution. Without these elements, the individualistic argument would goes, efforts to reduce deforestation would continue in the same unsuccessful path. Only the market mechanism, with its private actor innovation and efficiency can save the future forests. Furthermore, there needs to be room for trial and error and flexibility, not top-down

[8] "Realising the climate change mitigation potential of forests will require up-front investment of approximately USD 17-40 billion per year (Eliasch, 2008) (UNEP, 2011). Investment at this scale is highly unlikely to come from governments alone. To put the figure above into context, cumulatively available public funds from donor countries to date stand at approximately USD 7 billion (the annualised figures are much lower). Hence, investment from, and engagement of, the private sector – including financial institutions (FIs) and financial intermediaries – is essential, particularly for implementation activities." (REDDy Set Grow II, 2011:6).

regulation. Indeed, it is the private sector that will actually get things done rather than states who just talk about it.

The hierarchical narrative

Hierarchy regards nature as tolerant within definable limits. The illustration of planetary boundaries could be used as an illustration of this (Rockström et al. 2009). For proponents of hierarchy, the uncontrollable large-scale deforestation occurring around the globe does not only threaten the livelihoods of the, estimated, over one billion people that directly depends on them (Baker 2009), but pose a sever risk on what nature can cope with and consequently is a serious threat to us all. The root of the problem is not perceived to be a market failure, as the individualists see it, but a lack of planning (Verweij and Thompson 2006). The key solution to reducing deforestation is creating a global regime on preserving forests, based on technical expertise and administrative rational. Furthermore, REDD+ needs to be shaped through intergovernmental negotiations, as opposed to bilateral agreements (as it is in some cases). The only way to curb the level of deforestation is for governments and parliaments of the world to unilaterally agree on how to do this with firm regulations and detailed guidelines on issues such as carbon measurements, payment and monitoring schemes, compliance mechanisms etc.

Core to hierarchy is the application of technology and rule-based-norms to the management of complex human choices (O'Riodan and Jordan 1999:87). The hierarchy narrative perceives the world as complex yet controllable: man is deeply flawed but redeemable by firm, long-lasting, top-down rules and regulations (Verweij et al. 2006:820). However, not everyone is equally redeemable. "A few will prove to be more far-sighted, just, intelligent, informed, and cerebral than the mass of people, whose judgement will remain clouded by heard behavior and such gut instincts as short-termism, ignorance and greed. These benevolent experts should therefore rule for the benefit of the uniformed but hopefully compliant and grateful masses." (Verweij 2011:55). A key underlying rational is that through scientific expertise societies are able to monitor, understand and manage human patterns of environmental degradation including deforestation. It places great faith, not in the invisible hand of the market, but in the hands of experts and an administrative rationale (bureaucracy) to tackle the complexities of forestry and climate issues. Hierarchy adheres to "contracts and

regulations that incorporate the workings of the natural world into human evaluations and management systems" (O'Riodan and Jordan 1999:87).[9]

Hierarchy, places a constitutional emphasis on eco-auditing (getting the facts and figures of nature) and in particular carbon accounting. The importance is not getting the price - but the scientific facts right and this arguably influences how hierarchy perceives REDD+ - what it is suppose to achieve and how to achieve it. Indeed, at the very constitution of REDD+ lies the scientific awareness (in particular the FAO 2005 and IPCC 2007 reports) that deforestation is a large contributor of GEG emissions and consequently to climate change.[10] The essence of REDD+ is to map forest carbon sequestration, as well as other forest ecosystem services. By doing so, hierarchy draws attention to the seemingly humble and mundane techniques of monitoring and accounting that have turned carbon into a governable reality (Lövbrand and Stripple 2001). "This [hierarchy] story's heroes are those dispassionate scientists, experts, civil servants, NGO representatives and enlightened politician that are quietly building the global bureaucratic structures that will rectify the short-termism and greed of global market, and usher in the non-carbon age in a carefully planned and global manner." (Verweij and Thompson 2006:13). Furthermore, the multiple complexities and difficulties in mapping and modeling the carbon storages and fluxes of the vast regions of rain forests are not an issue that cannot be overcome, just a matter of getting the job done (their strong faith in science is not shared by the other world-views). (not innocent – link to critique). To date, the Kyoto protocol and the UNFCCC represent the most ambitious stab at intergovernmental, planetary planning (Verweij 2011:59).

"In short, the observation and monitoring challenges should not be viewed as a stumbling block for REDD policies to go ahead. However, efforts must be coordinated and streamlined through a robust international institutional arrangement, otherwise the environmental integrity and economic effectiveness of REDD is at risk...That is why we have proposed the establishment of an International Emission Reference Scenario Coordination Centre (IERSCC), specifically tasked to establish globally consistent national reference emission scenarios based on standardized and consistent data and algorithms, according to the outcomes of the continuing REDD negotiations under the UNFCCC." (Obersteiner et al. 2009:2,7).

"To provide REDD policymakers and practitioner communities with the information, analysis and tools they need to ensure effective and cost-efficient reduction of carbon emissions with equitable impacts and co-benefits. Tools will be developed that are tailor-made to the needs of policy formulations and strategy design, including toolkits, guidelines and manuals…" (Center for International Forestry Research (CIFOR) in Parker 2009:104).

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[9] This is because such arrangements are judged more readily to respect authority and more directly to monitor and enforce agreed contracts (O'Riodan and Jordan 1999:87).

[10] The initial submission on reducing emissions from deforestation in developing countries (FCCC/CP/2005/MISC.1) received wide support from Parties and there was general agreement on the importance of the issue in the context of climate change mitigation, particularly in light of the large contribution of emissions from deforestation in developing countries to global greenhouse gas emissions (UNFCCC REDD Web Platform).

The captions also capture the hierarchical preference for large-scale technology that requires lots of expertise to construct and operate, as well as long-term investments on a level that private financial markets usually do not provide (Verweij 2011:62). Such a preference for large-scale technology is clearly embodied in REDD+. Due to the necessarily complicated ad costly nature of its application procedure large-scale remote senescing has been an instrumental technology in developing REDD+ (much of the carbon accounting is done through remote sensing and the magnitude of the problem, which is a key selling point is measured through remote sensing.

Unlike individualism, this narrative holds a view on the limits to pure economic rational. Economic growth is not an enemy of hierarchy as it is for egalitarians. But the overall outcome of economic activity could be detrimental to the environment. Rational management of the economy and environment, therefore, will ensure that the destructive effects of economy activity do not become excessive (Thompson, Rayner and Ney 1998:344). The underlying assumption being that it takes institutions, rule-based norms and global governance to achieve this. Hence, like individualism, hierarchy agrees that REDD+ can deliver a win-win situation, however, under very different conditions. Individualism wants state interference in markets diminished, while hierarchy believes that state intervention and regulations are the only way to restrain the destructive potential of economic growth. Moreover, rational management and expert driven policies can deliver multiple co-benefits not limited to preserving forests, but also improving wider governance issues. Yemi Katerere, the former Head of Secretariat for the UN-REDD Program, framed REDD+ as a new and unique way to tackle not just carbon emissions, but also some of the wider social and ecological issues, such as corruption, land tenure rights, and biodiversity degradation.[11] As such the hierarchical view sees REDD+ not just as a win-win, but a win-win-win scenario that includes reducing emissions, facilitating economic development and the protection of biological diversity (and social issues). This illustrates the all inclusiveness potential that the hierarchical view sees in REDD+

"REDD+ generates wide support... achieves multiple goals... REDD is our best chance, maybe our last chance to save our rich biological diversity." (Robert Zoellick, President of the World Bank at COP16, 2010).

To sum up, the hierarchical worldview does correlate with a substantial amount of REDD+ ideas. Indeed, one could argue that REDD+ fits well with a hierarchal idea of how to reduce deforestation. It placed scientific and administrative rationales at the center of REDD+ capable of reducing GHG

[11] Statement at the international seminar: "REDD+ expectations and experiences", Copenhagen, 14th September 2011.

emissions, while improving the well being of local populations and the environment. The management of REDD+ requires certified experts to produce detailed carbon accounting of tropical rain forests, and for bureaucrats to produce statutory regulation to ensure that economic activity is kept in line with the overall aims of REDD+ (Verweij et al. 2006).

The egalitarian narrative

Egalitarians regard the fragility of nature as part of their reason for existence (Verweij and Thompson 2006). They symbolize this in the economic and social marginality of groups who lose out in a market-driven or hierarchically organized society (O'Riodan and Jordan 1999). This process of marginalization they regard as intrinsic to the management approaches and world-views of the other two groups, hence their concern for rights and equity to survival of both humans and 'critical' ecological processes. Hence, in relation to REDD+ they would place emphasis on equity as opposed to effectiveness and efficiency, which have been proposed as the three e's prerequisite to a successful REDD+ mechanism (Angelsen 2009). Egalitarians do not have the same faith in science as hierarchs, but view science as uncertain and are generally opposed to management techniques like cost—benefit analysis, which attempt to commoditize nature. They share a strong belief in the need for, and power of, societal deliberation and learning (O'Riodan and Jordan 1999:87). Wicked problems such as reducing deforestation are not amenable to quick technical fixes. Egalitarian do not see a division between humans and nature that individualist and hierarchs see it (Clapp and Dauvergne 2005). Humans are not superior to nature, and exploiting nature is exploiting the very foundation we depend on. Equality and equity are the key solutions to REDD+ (or forest conservation as the egalitarian narrative would be skeptical of REDD+).

For egalitarians, deforestation is part of a wider malign that has infested our civilization. REDD+ is not just about reducing deforestation. Hence, egalitarianism not only disregards a narrow focus on reducing carbon emissions, but also see forest conservation as part of a wider issue, which ultimately is about changing our societies and indeed the current state of human nature. Since everything is connected to everything else, we cannot understand environmental degradation unless we see it as a symptom of this wider social malaise (Thompson 1999).[12] The way humans degrade and destroy the natural world is merely an indicator for the way they treat each other and particularly the weaker members of society. The logic that allows us to fell thousands of square kilometers of

[12] Indeed concept such as sustainable development, betray the very notion of environmentalism that it builds upon, namely that societies and they way we live have to change to achieve sustainability.

rainforests is precisely the same logic that produces racism, misogyny and xenophobia. Hence, the egalitarians frame REDD+ not as a question of getting the price (on nature) right or getting the data right, but getting our ethics and morals right. Verweij and Thompson (2006) identify the villain, in the egalitarian story, as the fundamentally inequitable structure of advanced industrial society. "In particular, the obsession with economic growth has not only brought us to the brink of ecological disaster, it has also distorted our understanding of both the natural and the social world." (ibid:9). Egalitarianism perceives REDD+ not as maximizing synergies, but as involving trade-offs between economic growth and sustainable forest conservation. The prevailing structural inequalities of industrial society have led to increasingly unsustainable patterns of consumption and production,

In line with this rationale, there are clear North-South elements in the egalitarian understanding of REDD+. Egalitarians perceive rich industrialized countries are pillaging the world's resources with little regard for the wellbeing of either the planet or the peoples of its poorer regions (Verweij et al. 2006:822). This narrative is evident in the critique of REDD+ as an example of 'carbon-colonialism' (White 2011), implying a continued indirect domination of Southern countries by the rich North. Here, REDD+ is perceived as low cost emission reductions mechanism located in the South, but profitably exploitation for the benefit of consumers and companies in the North. REDD+ becomes a 'loophole' for avoiding the more costly mitigation efforts at home, while green washing and evade the historical responsibility of the current level of man-made concentration of CO_2 in the atmosphere (ibid). In other words to deflect responsibility for more costly emissions reductions while promising a "win-win" transfer of resources to the global South (McDermott et al. 2011:13). Moreover, the unsustainable rates of deforestation is closely connected to the means of production[13] and an unbalanced consumption in the North rather than promote polices that only forces the South to change its behavior.

Egalitarianism holds that indigenous knowledge has not been adequately represented during the policy process. The uncertainty and risks related to climate change have led to a political demand for rational and objective knowledge conferring natural sciences and economics greater credibility and productive power in REDD+ conceptualization (Hiraldo and Tanner 2011:48). REDD+ policies should build more effectively on governance structures that give a voice to the groups who are affected, or have a legitimate interest or stake (Hajek et al. 2011). Furthermore, take the lessons of

[13] Dauvergne and Lister (2011) illustrate the problems of the production processes of timber and argue that reforming this is central to promoting sustainable forest management.

community forestry into account when designing REDD+ initiatives (Agrawal and Anderson 2009:211). Moreover, egalitarianism is very critical of the notion of seeing tropical rain forests purely as carbon sinks, thus neglecting the rich biodiversity and the importance of it. The fear is that if REDD+ does not include a clause on biodiversity it could be devastating. Monoculture tree plantations that are great at carbon sequestration and storage, but do nothing to preserve the unique biodiversity of tropical rain forests, could in theory replace large areas of rain forest. This in turn would be devastating for local populations and serving primarily the interests of the North. The remedies of ecological justice ensuring biodiversity are guaranteeing local stakeholder participation and indigenous knowledge is part of policies on sustainable forest management. Unlike the hierarchical world view, egalitarianism does not promote large-scale technology, but emphasize local constructed knowledge that is more simple and require little investment or expertise (Verweij 2011:57).

Another item within REDD+ that it is very skeptical is the notion that REDD+ projects can be funded by carbon market like principles, exemplified by the following quote:

"The notion that REDD will make "forests worth more alive than dead" is wishful thinking in most cases, and worse, builds upon the misguided notion that money and finance is the solution, and that policy measures will not work and should not even be considered... The carbon market is a seductively simple mechanism that promised to solve lots of big, complicated problems, and do so in a way that would bring "wins" to the North, who were looking for a cheap way out, and "wins" to the South, who were looking for investments. It's attractiveness and durability is in part due to its elegance: saving, or making, money for everyone while reducing emissions in a quantifiable manner, but also, in part because an entire industry has grown up around it now, high-tech CO2 measurement, private consultancies and conservation NGOs who now have a vested interest in making it work." (Andy White, Coordinator of the Rights and Resources Initiative (Lang 2011)).

Verweij and Thompson (2006) the heroes of egalitarianism are those people who have "managed to see through the chimera of progress in advanced industrial society. They are the ones who understand that the fate of humans is inextricably linked to that of Planet Earth and that, in order to halt environmental degradation, we have to address the fundamental global inequities." (Verweij and Thompson 2006:9)

To sum up, egalitarians would argue that REDD+ (or sustainable forest management as they would prefer to refer to) should be less focus on providing a financial incentive for not cutting down forests. It should look more at the underlying and interlinking issues of unsustainable deforestation and degradation, including: land tenure issues, incorporate the views of indigenous people into the formation of REDD+ and places emphasizes the importance of biodiversity of forest rather then simple

its carbon sinks. The issues at stake are not confined to deforestation or climate change, but part of an overall struggle to change society and the twisted human nature that industrial society has created.

The fatalist narrative

Fatalists tend to see nature as a lottery, opening and closing options and acting in unpredictable ways. It is safe to assume that fatalist are not represented in the discourses on REDD+, which is a general trademark of fatalism. The narrative is characterized by a lack of trust in one another. Hence, there is no solution to the tragedy of the commons, because any one player will defect at any time (Verweij and Thompson 2006). Prisoner's dilemma – rat on your accomplice before (s)he rats on you is the notion. Furthermore, the efforts we take to reduce the clearing of forests by man may have little impact as nature is unpredictable and the potential forest area saved may be counter-weighted by an outbreak of disease or forest fire. Hence, there is no point to it. The fait we are heading towards, whether it be a loss of all of our pristine rain forests or devastating climate change, is inevitable, no matter what we do. Example of narratives are of course hard to find, but the notion of some local forest dwellers may serve as an example, namely the notion that no matter what happens to the forest, there's always more of it. So they do not have to worry about the exploitation of their forests, they just move deeper into the forest.[14] Similarly the examples of natural deforestation due to illness or wood digesting creatures (ex. Canada and the USA) would be great examples of why large scale forest conservation are futile efforts. Fatalist do not join pressure group, they do not get involved in societal debate about REDD+ and see no sense in trying to 'learn' about how to conserve forest or take part in REDD+ projects (Verweij and Thompson 2006:6). This can be a significant barrier to engage local populations (as well as other populations) in mechanisms such as REDD+ in order to change the current trends of deforestation.

"To me, a 40 percent increase in deforestation doesn't mean anything at all, and I don't feel the slightest guilt over what we are doing here. We are talking about an area larger than Europe that has barely been touched, so there is nothing at all to get worried about." (Blario Maggi, former governor of Mato Grosso, Brazil, and part owner of the world's biggest soya bean producer – in McC

"Villagers, even more than the state, face formidable ideological and structural obstacles in efforts to change their fate, and are likely to remain disdainful and distrustful for several years into any such project." (Peluso 1994:249 – describing the behavior of some villagers in a forest conservation project in Java, Indonesia).

[14] Interview with Stine Krøijer of the NGO IBIS regarding her field study on local populations in Ecuador (March 2012).

Yet fatalism can have a sever impact on a policy. Stakeholders can be pressed into the fatalist world view if alienated from the process. Fatalism is a sort of passive margin that is made up of those who find themselves squeezed out from the three "active" ways: unable (like the "undeserving poor") (Thompson 2011:9). If too many stakeholders are squeezed into fatalism it can prove fatal to the policy mechanism.

Policy narrative analysis

In the previous section it can be seen that although the hierarchical world-view on how to deal with deforestation fits well with the dominant ideas on REDD+ other world-views are present. The market rationale appears to be a significant part of REDD+ while the debate on social safeguards has become a key aspect of REDD+. This section will analyze the plurality of REDD+ by looking at the debates on the policies on a market based approach and social safeguards.

Social safeguards (egalitarian)

The ideational anchor of REDD+ lies in its perceived capacity to reduce a substantial amount of green-house gasses at low-cost, it's broad appeal arguably lies in its ability to simultaneously promote non-carbon values associated with forest conservation and sustainable development (Corbera and Schroeder 2011; Hiraldo and Tanner 2011; Stephan 2012). Two landmarks for social safeguards within REDD+ include the adding of the '+' to REDD+ at the Copenhagen negotiations in 2009 (COP-15) this brought in the 'non-carbon values' as a core part of REDD+. This was followed up by the Cancun Agreement which saw social safeguards been inserted into the negotiation text.[15] However, a closer look reviles a lack of proper inclusion and implementation of social safeguards, which is still one of the central points of critique on REDD+. Pressure groups, local populations and studies on REDD+ still call for an increase importance of social safeguards both to increase the inclusiveness and legitimacy of REDD+ but also the effectiveness of REDD+ as evident from some REDD+ pilot projects (Larson and Petkova 2012; Angelsen 2008; 2012). The key points of criticism include good social safeguards points: first, from a substantive point of view the text (UNFCCC/ COP16/Annex I) does include: consistency with international agreements, transparency and effective governance, respect for the knowledge and rights of indigenous people (taking into account the United Nations Declaration on the Rights of Indigenous Peoples), full and effective participation of relevant stakeholders, enhancement of social benefits. However, the text is in the ap-

[15] (FCCC/CP/2010/7/Add.1).

pendix and there are no standardized requirements to demonstrate measurable and additional social benefits (McDermott et al. 2012).[16] While many of the submissions to the UNFCCC contain language about respecting the property rights of indigenous peoples and local communities, as well as biodiversity, there have been few attempts to flesh out what these social and environmental safeguards might look like (Logan-Hines et al. 20012:373).[17] Secondly, from a conceptual point of view, REDD+ safeguards are intended to protect non-carbon forest values, however this creates a trade-off between carbon and non-carbon values (McDermott et al. 2012; Thompson et al. 2011). While REDD+ countries are formally requested to provide information on safeguards, there is as yet no agreement on the relative priority of carbon versus non-carbon values, and the appropriate level of safeguard standardization (McDermott 2012:63). Overall, the actual implementation of social safeguards has been discredited by a large number of studies (including: Agrawal et al. 2008; Hajak et al 2011; Hufty and Haakenstad 2011; Larson and Petkova 2011; Schroeder 2010; Skutsch et al. 2011). Despite a comprehensive inclusion of social safeguards in the negotiation text, REDD+ is often criticized for not include local stakeholder involvement, not distributing funds to local stakeholders and not taking appropriate measure for obtaining Free, Prior and Formal consent (Angelsen 2008; Angelsen 2012; Carbello and Gilbertson 2012). This indicates that at its core REDD+ is structured to cater for the carbon values over the non-carbon values. Indeed Norway, which is the single largest donor to REDD+ projects has stated that its overhauling aim with REDD+ is to provide cost efficient mitigation.[18] Furthermore, studies have shown how mechanisms, such as the laborious and problematic process of laying the methodological and technological foundations for analyzing forest cover and changes in carbon stocks, place dominant economic interests in advantage over environmental and social aims, pushing the latter to the back of the climate regime's agenda (Cabello and Gilbertson 2012; Hajek et al. 2011; Larson and Petkova 2011).

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[16] There are different approaches to social safeguards: global multi-lateral funding programs (including the Word Bank's FCPF and the UN-REDD), private certification schemes (e.g. Verified Carbon Standards and Climate Community and Biodiversity Alliance), and hybrid approaches (e.g. public/private REDD+ Social and Environmental Standards (REDD+ SES). Their differences highlight on going conflicts over the prioritization of measuring carbon versus safeguarding non-carbon values (McDermott et al. 2012).

[17] No decision has been reached, however, as to how safeguards will be factored into payments for emissions reductions in the ''results-based'' phase of REDD+. In other words, there is no agreement as yet on what trade-offs will be required among various stakeholder aspirations for safeguarding and the receipt of financial payments for reducing carbon emissions. Equally importantly, it is unclear how much net benefit will be available to distribute once all of the costs of policies and measures to reduce emissions and safeguard other values have been considered (Peskett, 2011).

[18] "let me first of all be very clear. Norway has as its main focus to fight climate change through deforestation." (Norwegian Environment Minister Bård Vegar Solhjell, interview by A. Angelsen (CIFOR) in the run up to RIO+20).

The lessons and knowledge on incorporating social safeguards into forest programs are out there including the hard earned lessons on social safeguards in the EU's action program on illegal forestry - Forest Law Enforcement, Governance and Trade (FLEGT). However, it has not gained resonance amongst the policymakers on REDD+ at the UN level. The CT framework helps explain this by pointing towards the hierarchical context in which REDD+ is being negotiated, which leaves out or does not fully embrace the egalitarian story-line on social safeguards. Similar conclusions have been made by Verweij on Kyoto Protocol and the UNFCCC (2011). The UNFCCC overarching mitigation strategy is based on a top-down bureaucratic management of deforestation based on capital and knowledge intensive large-scale technology to provide the guidance and knowledge on how to avoid deforestation. This is in contrast to much of the text on social safeguards such as local knowledge (see above). The real conflict is between the rationalities behind social safeguards (ultimately egalitarianism) and the world view of the hierarchical context of the UNFCCC. The overwhelming criticism of REDD+ in terms of its lack of social safeguards indicates that not only do the carbon values trump the non-carbon values, but this is a clear indication that hierarchy is trumping egalitarianism, which correlates with the analysis of the narratives of REDD+ and similar studies on the UNFCCC mitigation strategies. Furthermore, studies indicate that significantly increasing the economic value of forests is likely to have detrimental impacts on local populations (Kron 2011; Nhantumbo 2011). A direct example of the structural hierarchy exclusion of alternative rationalities can be seen by how voices against REDD+ mechanisms are actively marginalized and silenced. One of the articles under review recognizes that REDD+ was opposed by the Peoples' Agreement created in Bolivia in 2010 (Van Dam, 2011:404), but few others even acknowledge that REDD+ has been clearly rejected by many other movements, organizations and communities throughout the world (Cabello and Gilbertson 2012:174. This suppression of opposing voices was physically evident during the UNFCCC summit in December 2010, when "UN security ordered non-governmental observers wearing 'No REDD' stickers to remove them. The Indigenous leader Tom Goldtooth, director of the Indigenous Environmental Network, refused to remove the sticker, leading to the temporary suspension of his accreditation." (Ibid). The conceptual and 'real-life' evidence compels the conclusion that despite its somewhat core placement in the policy debate, social safeguards has not been embraced to a full extend. One could in a critical way say that it has become a box to tick for project managers, but the underlying egalitarian rationality has not gotten through.

Market based funding (individualism)

The story of the individualist worldview's influence on REDD+ starts on a high but ends in uncertainty. Combining forest conservation with a market rational approach was one of REDD+ initial core selling point. The cost of storing carbon in forests was calculated to be very low in comparison to other mitigation options - prominent examples of this perspective are the well-known Stern and Eliasch Reviews (2006 and 2008), which both estimate that the cost of avoiding CO2 emissions from deforestation and degradation would be around US$ 5–15 per ton of CO2. In addition, the consulting firm McKenzie set out a cost curve in 2007 (revised in 2009) that became highly popular in policy circles and which also shows that REDD+ would be a low-cost option (Stephan 2012). Similarly the individualistic story-lines, such as a fundamental role of carbon market funding and putting a price on ecosystem services are key features of REDD+ (Corbera and Schroeder 2011; Skutsch et al. 2011; Peskett et al. 2011). There are three kinds of funding for REDD+ projects, market based (offsets), fund-based mechanisms (private and public donors), and hybrid, which combines both market and non-market based funding. At COP-16 in Cancun the UNFCCC adopted a three phases approach: (1) a capacity building phase; (2) a scaling up phase to include government policies and measures addressing drivers of deforestation as well as demonstration activities for emissions reductions; and (3) full implementation (Angelsen 2012). Proponents of hybrid funding would allocate fund based finance to the first two phases. Then when institutions develop sufficient capacity for monitoring and demonstrating emissions reductions, countries could proceed to a full implementation phase in which they would access the carbon market (Angelsen et al. 2008). Adopting the hybrid solution can be seen as an illustration of a less individualist and more hierarchical perception on funding (Indeed such a phase approach is a typical hierarchical approach - see Hiraldo and Tanner 2011:46 on institutionalist). The implication of a combined approach includes extraordinary amount of planning, measuring and monitoring e.g. more bureaucracy and less revenue (Logan-Hines et al. 2012:371) and this is arguably a more hierarchical driven solutions. Hence, the hierarchical worldview agrees that a market-based rationale should be a core part of the solution, but it should be a market tamed and controlled by regulations. Experts have pointed out that the strict market-based solution that individualism argues for is under increasing pressure. As the Centre for International Forest Research states:

"creating a market for environmental services presupposes four critical elements: the existence of quantifiable commodity or service, buyers, sellers, and a marketplace with associated rules and regulations. However, in most REDD+ countries the commodity is hard to quantify, the sellers are not well defined, the buyers are not there, and the rules of the game are not well established." (Angelsen 2012:43).

In addition, the problem with framing REDD+ as a low cost mitigation tool is emerging as REDD+ 'pilot projects' show that the full cost of REDD+ including transaction, implementation, or capacity building costs is often far beyond the initial estimates that only took into account the direct abatement costs (Ledere 2012). There is, therefore, a growing perception that the costs of REDD+ will become far more expensive than originally estimated, prices will vary from place to place, but there is a growing uncertainty that a compliance market will emerge on a global level (which any market based approach relies on)[19], or that carbon off-setting will be part of REDD+ (which, Brazil, a major player in REDD+, is against).

A symbol, for the blow to the market based solution was COP-15 in Copenhagen, which raised doubts over whether there will be a global agreement on climate change with a cap on emissions (these doubts have increase with subsequent COP meetings).[20] Furthermore, investment from the private sector appears to be far from the level originally anticipated. Indeed, bringing forest carbon to the market (Stephan 2012) was seen to deliver substantial long-term funding at unprecedented scale to forest conservation efforts through REDD+ and PES schemes. However, funding as resent studies have shown is returning to more development type funding (UN-REDD and FCPF - recent studies by CIFOR show that an estimated two-thirds of REDD+ funding comes from development aid (Angelsen 2012), and with local governments and local businesses (mining or agroindustry) also becoming an increasing source of funding for REDD+ Readiness projects (ibid). Moreover, the uncertainty of REDD+ finance is leading some project proponents to hedge their bets by shifting the relative focus of their efforts to traditional integrated conservation and development project (ICDP) activities (ibid). This again would threaten to decouple REDD+ from the individualist's preference of basing REDD+ on performance-based PES linked to a 'free' carbon market. The deployment of large scale PES schemes - directly linked to carbon markets, were thought to be the default option for REDD+ projects. This was believed to overcome donor fatigue, provide long-term funding and attract new sets of innovative and entrepreneurial actors to the forestry sector (Parker et al. 2009). This seems likely not to materialize on a large scale. The point is that the market-based rationales in

[19] As even the World Bank acknowledges World Bank. State and Trends of the Carbon Market 2011. Washington, DC: World Bank; 2011.

[20] Although the Copenhagen Accorded did initially come with promises for substantial country pledgees for funding efforts to combat climate change, little of that promise funding as emerged. The COP-17 in Durban 2011 according to some observers put the compliance market on life support, not killing it completely but only keeping it artificially alive (SOURCE). On the other hand, the California emission-trading scheme, which will allow REDD+ credits and this, may increase the demand slightly.

REDD+ are more routed along hierarchy (regulated) than individualism (free) and that the hierarchical version seems to be the one operationalized.

The argument of this paper is well illustrated when looking at the market rational. REDD+ relies on establishing a global market by government (hierarchical) fiat, which has never been done successfully for any commodity (Prins and Rayner 2007). Worse is that this commodity is based on overconfident assertion of fragile knowledge and (ibid). Such fabricated markets are distended to fail and will potentially due more damage than good. However, the argument made here does not say that any kind of market rationale should be kept out of forest conservation efforts. Indeed, it is crucial that efforts to avoid deforestation incorporates a market rationale to include the individualistic world view. However, as the [alternative solutions] sections will show this can be done in a very different way that the current REDD+ practices.

The plurality of REDD+

From the section on the different world-views (see Table 1.) we can see that the different ways of perceiving the problem of REDD+, leads to different ways to perceive what the solutions to these problems are, and consequently what policy options should adapted. Hence, if we see the problem as a market failure we are going to deal with this in a certain way, which is very different that if we see the problem as part of global inequality. Furthermore, which ever world-view we subscribe to in this context influences what we accept as 'facts' and what argument or rhetoric we are more persuaded by. CT argues that each world-view provides a "clear expression of the way in which a significant portion of the populace feels we should live with one another and with nature" (Beck et al. 2011:135). In other words, each world view represents an understand and policy root on reducing deforestation that represents the views of a significant portion of the population.

Table 1 (wold-views on REDD+)

	Individualism	Hierarchy	Egalitarianism	Fatalism
Nature	Benign.	Tolerant.	Fragile.	Capricious.
Problem	Market failure.	Lack of planning.	Focus on mitigation and commodification of nature instead of inequality.	Human nature.
Solution	Getting the price right.	Techno-management.	Moral and equity based mechanism.	No solutions (luck).
Policy	- Market based PES mechanism. - Cost-efficiency. - Carbon market funding. - emphasis on the role of private sector. - Voluntary and flexible mechanism. - Country specific. - Believes in a win-win scenario.	- Detailed and standardized - Effectiveness. - High level of detailed MRV schemes. - Top-down biding agreement facilitated through the UNFCCC. - Carbon market and/or fund. - Strong role of institutions. - Believes in a win-win-win scenario.	- Social safeguards. - Equity. - Carbon fund. - Bottom-up participatory process. - Emphasis on local knowledge - Change wood production and consumption patterns. - No win-win scenario but trade-offs.	- Let somebody else do it.

Table created by authors.

REDD+ could look like a case of clumsy solutions in that it aims to effectively reduce GHG emissions, cost-effectively and achieving social and ecological co-benefits. However, through the analysis we suggest that although this may include a range of policy ideas from different world-views it does not allow for a plural rationality based policy process. The ideas and approaches that may appeal to the individualistic or egalitarian ideas, have, as it has been illustrated above, been institutionalized through a hierarchical rationale. Increasingly, the market-based approach in REDD+ does not facilitate the basic preconditions for a market to take place nor has it been able to attract private sector players. Similarly the egalitarian related social safeguards, which are also at the core of the REDD+ policy ideas, have received substantial critique by scholars, NGO's and civil society (Hayak 2011; Thompson et al. 2011). The lack of local stakeholder involvement and the uncertainty

of what REDD+ will bring to the local level, questions the notion of REDD+ being a key promoter of social safeguards. Both these cases indicate that although there is a relatively broad pool of ideas in REDD+, it is far from a pluralistic policy subsystem. Instead it takes the characteristics of a hierarchical half-way house, including the policy ideas from other world-views but ultimately intrenched by central planed regulation.

There are still big decisions that need to be made on core issues, which will tell us more about the level (or lack) of plurality REDD+ is heading towards.[21] In the analysis, we conclude that although REDD+ can be broadly defined and mean different things to different actors, it is the hierarchical narrative that gains the most policy traction. The accessibility of policy narratives may be moderate e.g. there is a relatively broad pool of policy story-lines and ideas in the policy debates on REDD+, which can be linked to all three active CT typologies. However, the responsiveness is low in the sense that the hierarchical narrative structures and frames REDD+, to an extent that I argue that REDD+ is not at home in either individualism or egalitarianism. Hence, REDD+ can be seen as a hierarchical based discourse, which interacts with the other typologies to more effectively pursue its own goals, but the policy rationale on markets and social safeguards does not fully appreciate other world-views. This level of interaction (or lack there off) pulls REDD+ to the bottom Ney's illustrative map of policy subsystems (Figure 1 - see page 5 in this paper), however the is a wide range of ideas circulating REDD+ debates, which means it is not quite a closed hegemon.

Discussion on alternatives

"Of course choices between competing values are not made by relying upon scientific knowledge alone. What is wrong is to pretend that they are." (Prins and Rayner 2007:25).

Yet, is it even possible to align the interests of all stakeholders under REDD+? CT says it is possible to align all the three active world-views (for a range of empirical examples see Thompson and Verweij 2006). However, the outcome is likely to look very different from REDD+ as it is now. Given the hierarchical bias of REDD+ of the structure of REDD+ it is likely that a clumsy solutions to avoid deforestation and forest degradation while enhancing biodiversity and livelihood activities in local populations would look very different than REDD+. The Forest Governance Learning Group[22]

[21] Decisions remain of the role of carbon markets, implementation of social and ecological safeguards, carbon monitoring (how and by whom), centralized or decentralized forest management, land tenure and others.

[22] A group of 12 experts, hands-on protagonists in REDD+ strategy and practice in India, Indonesia, Nepal, the Philippines, Thailand and Vietnam. http://www.iied.org/forest-governance-learning-group

argued that REDD+ should be build on the foundations of community forestry (Mayers et al. 2009). Furthermore, a substantial body of empirical research demonstrates how local forest governance can be as, if not more, effective than centralized state-based regimes (Agrawal and Angelsen 2009; Ostrom 2009). Moreover, governments and international agencies now recognize that government forest departments often cannot manage resources sustainably and may fail to distribute forestry benefits equitably (Agrawal and Angelsen 2009; Kanowski et al. 2011). Before we go on, it is important to state that community forest management (CFM) cannot solve all the problems of forest governance. Indeed, it is itself vulnerable to problems of corruption, political mismanagement and enforcement (Springate-Baginski 2003). One should not be politically naive about the nature of village society, neither should one ignore widespread evidence of social cooperation across wealth groups. CFM can address several problems of centralized forest management. Local forest governance can secure improvements in multiple forest outcomes such as biomass and carbon storage, livelihoods contributions for the poor, carbon monitoring, biodiversity conservation and it can do so at lower cost than is possible through centralized governance (Agrawal and Angelsen 2009; Skutsch 2010, Fry 2010). Furthermore, excluding local communities is likely to work against community interests, and may provoke illegal harvesting, fire and arson in forests or other illegal activities that reduce carbon storage. Indeed, community forestry policies emerged in Nepal as a response to 'institutional failure' at the local level, which had led to progressive degradation of hill forests (Springate-Baginski 2003).

Looking at the lessons of CFM it looks as though there is a core element of clumsiness. There needs to be the right 'dose' of each world view to work - this is not just an egalitarian bottom-up approach, but individualism and hierarchy place a crucial role in successful CFM. When it comes to individualism, studies have shown that economic interest is a crucial player, for forest management and even for CFM. "… Where local people's livelihoods do not depend highly on forest products, they may not be so inclined to commit time and energy to community forestry." (Springate-Baginski 2003:12). However, economic incentives may facilitate the wrong set of incentives as it may lead to local populations doing less to sustain the forests or become dependent on hand-outs rather than making their own living (Agrawal and Angelsen 2009; Cabello and Gilbertson 2012). Furthermore, if REDD+ can generate a high price on carbon payments this could dwarf existing benefit streams and create incentives for local elites to capture community-based carbon management institutions. CFM needs the right dose of hierarchy as well. Lessons from Nepal CFM has shown that the Ministry of Forest plays a crucial facilitating role in CFM projects (Springate-

Baginski 2003). In terms of guidance, stricter regulatory interventions and alternative employment opportunities that reduce pressure on forests (ibid, Agrawal and Angelsen 2009). Indeed, the role of the state and regulatory instruments is critical to the success of CFM, most CFM continue to be dependent (i.e. not self-sustained) to some degree (Springate-Baginski 2003). Likewise when it come to egalitarianism, CFM caters to its calls for bottom-up and inclusive approach to forest management that takes into considersation local knowledge. Furthermore, there are indications that although even CFM are not fully inclusive (poor households and women are often excluded) this has not resulted in exploitation by the elites (ibid).

Again CFM is not a silver bullet. The key message is that there are none when it comes to wicked problems. The problem is that with REDD+ the UNFCCC is repeating its mistakes, carrying over its mistakes from its failing attempt to mitigate climate change into the forestry sector. CFM represents an alternative to forest management with a proven track record. Many studies have argued in favor of local communities as the best way to sustain forests and CT indicates that this falls inline with a more plural approach to forest management. However, the dominance of REDD+ by hierarchy actively shuns out alternatives such as CFM. Furthermore, a clumsy solution would place less emphases on reducing carbon emissions as the core objective of why avoiding deforestation should be embarked on. Yet it would also be more than a step back to previous attempts to reduce deforestation which were more driven by development goals (Angelsen 2012).

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