REDD+: If communities are the solution, what is the problem?

Margaret Skutsch [a], Esther Turnhout [b],*

[a] Centro de Investigaciones en Geografía Ambiental, Universidad Nacional Autónoma de México, Campus Morelia, Mexico
[b] Forest and Nature Conservation Policy Group, Wageningen University, Netherlands

ARTICLE INFO

ABSTRACT

While mainstream academic literature over the past ten years has tended to identify commercial and industrialized agriculture as the primary driver of deforestation, national plans for REDD+ (as exemplified by proposals to the Forest Carbon Partnership Facility for funding) focus strongly on 'communities' and local actors. This is partly to ensure that communities are not harmed by the program, and may benefit from it; but the documents show that in most cases they are in fact envisaged as the primary actors in the REDD+ implementation. In concordance with this, most of the national proposals identify small scale local actors as the agents behind deforestation much more often than large scale outside actors. Moreover, most assign more weight to REDD+ activities directed to small scale actors than even their own analysis of drivers would imply, quite apart from global understanding about who is responsible for forest loss. We suggest that this seeming policy inconsistency can be explained through an understanding of problem framing. We show that the 'communities' narrative may implicitly rest on earlier, now largely discredited explanations of the causes of deforestation (shifting cultivation and other traditional practices). However this narrative is attractive today from a variety of other positions, and we suggest that it represents a policy case of a solution looking for a problem.

1. Introduction

Under the UNFCCC initiative Reduced Emissions from Deforestation and forest Degradation (REDD+), countries may receive financial rewards for reduction of deforestation and degradation and increases in forest stock due to sustainable management, forest enhancement and conservation. Although in earlier periods (1970s and 80s) much deforestation in developing countries was the result of deliberate government policies to open up 'unproductive' areas for agriculture (Pirard & Belna, 2012), recent scientific literature on causes of deforestation attributes it largely to market driven expansion of large scale commercial agriculture, including plantations and cattle rearing (DeFries, Rudel, Uriate, & Hansen, 2010; Ferretti-Galon & Busch, 2014; Kissinger, Herold, & de Sy, 2012; McAlpine, Etter, & Fearnside, 2009; Rudel, 2007; Rudel, Defries, Asner, & Laurance, 2009). This is evidenced, among other things, by the increase over time in the size of patches cleared (Austin, Gonzales-Roglich, Schaffer-Smith, Schwantes, & Swensen, 2017). International trade in agricultural products has been shown to be considerable driver of forest loss at global level (DeFries et al.,

2010; Leblois, Damette, & Wolfersberger, 2017; Pendrill et al., 2019). Curtis, Slay, Harris, Tyukavina, and Hansen (2018) estimate that just over a quarter of the loss is directly due to (export-led) commodity production, while the rest is roughly evenly spread between logging, wildfires and small scale local agriculture. De Sy et al. (2015) find that for the case of Latin America, pasture development is responsible for 70% of clearance, and expansion of commodity production for 14%, although the latter rate is increasing over time.

However, there co-exists an older, but important environmental narrative which has portrayed local actors – communities, and subsistence farmers in general – as the primary agents responsible for clearing forest, largely because of their traditional, extensive farming practices, particularly shifting cultivation, which is often pejoratively known as 'slash and burn' (Brady, 1996; Butler, 1980; Myers, 1992, 1993; Phanthanousy, 1994; Schuck, Nganye, & Yantio, 2002; Varma, 2003). Although this narrative has been strongly criticized for its lack of accuracy (Angelsen, 1995; Brown & Schreckenberg, 1998; Fairhead & Leach, 2000; Ickowitz, 2006; van Vliet, Mertz, Heineman, & Langnake, 2012; Fox, 2000), we will show that it is still present in REDD+ policy discourse, and particularly in national REDD+ policy documents. Although communities who are carrying out traditional forms of agriculture are not usually directly 'blamed' in the REDD+ discourse, shifting cultivation

* Corresponding author.
    E-mail addresses: mskutsch@ciga.unam.mx (M. Skutsch), esther.turnhout@wur.nl (E. Turnhout).

is commonly cited as a major driver of deforestation. More importantly, but less obviously, the older narrative is reflected in the very prominent position that local communities and indigenous peoples have been given in REDD+. We observe that this position reflects not only arguments about their needs for livelihood co-benefits and protection via safeguards, but also, and more fundamentally, the pivotal role that is envisaged for them in carrying out REDD+ activities to reduce deforestation and forest degradation (Angelsen, 2009; Sills et al., 2014; Skutsch & Turnhout, 2018). Studies of REDD+ have already pointed to a disconnect in REDD+ discourse between the real drivers and the interventions proposed (Holmgren, 2013; Weatherly-Singh & Gupta, 2015). We suggest more specifically that there is a potential mismatch in REDD+ between the causes of deforestation and the importance that is given to communities, who are seen as the central actors in solving this problem.

Policy analysts have offered an explanation for how these kinds of mismatches, or seemingly irrational selection of solutions to particular problems, can emerge and come to be enshrined in policies. They have pointed to the important role of *framing* in policy (Yanow, 1996). In this perspective, policies are based on and articulate specific problem frames. These problem frames can be understood as appealing narratives (Stone (1989) calls them 'causal stories'), that link together assumptions about problem characteristics, with causes, appropriate solutions, and distribution of responsibilities. In this regard, it has been shown that policy processes frequently do not work in a linear sense in which the problems are signaled first, followed by the identification of causes and then by the proposal and adoption of solutions (Cohen, March, & Olsen, 1972). Rather, many policy processes can be characterized as 'solutions that are looking for problems', as decision makers frame problems in a way that allows them to serve as windows of opportunity and justify the adoption and implementation of policies which they already favour (Kingdon, 1984). Once adopted, problem frames can become very powerful and difficult to change (Bacchi, 2009, 2012), not only because they are taken for granted and accepted as true, but also because they become embedded in practice as the solutions prescribed in these problem frames get implemented, as resources are invested in them, and as they start to provide benefits for actors. This tendency of problem frames to persist has been recognized in forest governance literature. As a case in point, Brockhaus, Di Gregorio, & Mardiah (2014) have shown how existing policy narratives in forestry at national level have created path dependencies and helped to entrench interests which militate against change. Carlssen (2013) also recognizes this tendency but sees it as an attempt by forestry officials to maintain consistency in their arguments, rather than as self-interest.

Drawing on the perspective outlined above, this paper considers the question 'if communities are the solution in REDD+, what is the problem'? After explaining the methodology (Section 2), we address this question by examining how the causes of deforestation are presented in the literature on tropical deforestation (Section 3) and how they are presented in national REDD+ planning documents, specifically in the most recent Emission Reduction Programme documents (ER-PDs) submitted to the World Bank's Forest Carbon Partnership (FCPF) program for financial support (Section 4). In Section 5 we present the results of this analysis, which show how the role of communities in these REDD+ documents is linked to the various identified causes of deforestation. In so doing, we are able to analyze convergences as well as dissonances in the causal attributions of deforestation in REDD+ policies as compared to what is presented in the scientific literature. We also look at how these different causal attributions are articulated with the notion of communities as the solution in REDD+. Ultimately, our objective is to expose possible inconsistencies within and between causes and solutions, offer an explanation for how these inconsistencies emerge and are maintained, and discuss the appropriateness of attributing responsibility to communities when addressing the problem of deforestation in REDD+.

2. Methodology

We start, as mentioned above, with a review of scientific literature on the causes of deforestation in general and then in the context of REDD+. For the analysis of how the causes of deforestation and the role of communities are presented in national REDD+ planning, we used the Emission Reduction Programme documents (ER-PDs), which are available on the FCPF site. These documents are considerably more detailed than the earlier Emission Reduction Programme Idea Notes (ER-PINs) and the even earlier Readiness Preparation Proposals (and R-PPs) and reflect changes as a result both of sharing of experiences at regular meetings between countries that are registered under FCPF, and expert technical advice on the earlier documents and on drafts of the ER-PDs. Twelve countries had submitted final ER-PDs to the Carbon Fund by August 2018 and these have all been included in the study. It should be noted that in all cases except Costa Rica, the ER-PD is for only one part of the country, not the whole national territory and that the analysis of drivers and the proposed REDD+ interventions in these reports refer just to these areas. As far as we can ascertain, the areas covered have been prioritized because of their relatively high deforestation rates; for example, in Mexico, they include the states of Jalisco, Chiapas and Yucatan, which are thought to have the highest overall deforestation rates in the country, plus two other states in the Yucatan Peninsula, which are fifth and eighth (out of 32 states) according to national reports (SEMARNAT, 2011, p. 16).

The FCPF provides a format for these submissions which means that they should be easy to compare between countries. For example, the documents contain a section on "analysis of drivers and underlying causes of deforestation and forest degradation drivers" which requires the report to "*present an analysis of the drivers, underlying causes and agents of deforestation and forest degradation...... distinguish between both the drivers and policies within the Accounting Area of the proposed ER Program, and any drivers or policies that occur outside the Accounting Area but are affecting land use, land cover and Carbon Stocks within the proposed ER Program Accounting Area*" (FCPF, 2014; capitals as in the original). Thus, these documents enabled us to analyze what are seen as the causes of deforestation by looking at what they present as direct and indirect drivers (including enabling conditions) at local and other scales, and what agents they consider responsible. We divided these agents into two categories: on the one hand, individual small farmers and communities (both considered to be small scale/local) and on the other, government and companies, considered to be large scale/industrialized actors. This was not always easy because they are not in all cases clearly described as such in the documents analyzed and we relied partly on quantitative data where provided but mainly on qualitative descriptions of the actors. Where multiple actors were indicated in relation to a single driver, a fifty—fifty split was used to calculate the overall (perceived) responsibility. Results are rounded to the nearest 10%. We stress that this type of analysis can give only a rough indication of how important different actors are thought to be, because in most cases there is no explicit basis on which a weighting could be made. In general the reports do not distinguish between drivers causing deforestation and those relating to degradation, so these were combined in our analysis.

Subsequently, we analyzed the extent to which the national REDD+ proposals (ER-PDs) focus their investments and strategies on communities. It should be mentioned here that while

international REDD+ policy statements from the UNFCCC standardly use the term 'communities', which implies a form of small scale local organization based on traditional social relationships, in the national REDD+ documents this term is regularly elided with other terms such as 'farmers' and '(small) land owners', as has been noted earlier (Skutsch & Turnhout, 2018). Therefore, we have proceeded by listing the REDD+ direct and enabling activities proposed in these documents and counting how many of these have small farmers and communities as the target, as opposed to large scale/industrialized farming. This gives only an approximate indication because there is no indication of the relative weight of each activity within the overall program. We did attempt to apply a weighting on the basis of the budget assigned to the activities, but this proved unworkable because (a) many of the reports do not provide detailed or comparable breakdowns of the budget and (b) some activities by their nature (particularly enabling activities, such as changing or enforcing law) may have huge effects in the long run but have relatively low (and usually unbudgeted) direct costs. In addition to assessing what proportion of the proposed program directly addresses small farmers and communities rather than large scale and commercial actors, we tabulated what proportion of the direct and indirect drivers are addressed in these plans. All the information taken from the ER-PDs on these matters was entered into the spread sheet (Supplementary materials) and is summarized in Section 5.

3. Causes of deforestation as presented in scientific literature

Deforestation has been a concern for environmentalists, foresters and ecologists as well as governments and the general public for many decades; in the last 25 years, 129 million ha (3.13% of the 1990 forest area) have been lost, mostly in tropical zones (FAO, 2017). This represents an annual loss rate of 0.13%, varying over time; during the 1990's yearly losses were 0.18%, but the rate slowed to 0.08% in the last 5 years recorded (2010–15). Deforestation is a complex phenomenon with many interrelated causes, which may vary from place to place and over time. Following Geist and Lambin (2001), it is common to distinguish *proximate* or direct drivers, those activities that directly result in losses of trees (such as clearance for pastures, timber felling) from *underlying*, indirect drivers (market demand for beef and wood products), although a large number of what might be considered '*enabling*' or '*pre-disposing*' conditions (lax enforcement of law, poverty, lack of property rights, construction of new roads) are often confusingly lumped together with underlying drivers (Salvini et al., 2014). Degradation (understood here as loss of some trees within an area that in principle remains a forest) is sometimes distinguished from deforestation (understood here as permanent change of land use from forest to non-forest), but not always, although the drivers behind degradation are usually different from those behind deforestation and by no means all degraded forests become deforested in the long run (Mertz et al., 2012). According to Houghton (2012), 60 to 90% of forest CO_2 emissions come from deforestation, the rest from degradation, but he admits that degradation is so poorly measured that there is a high level of uncertainty in this, and many studies make no attempt to distinguish these emissions from those of deforestation.

Several well-known meta-studies have attempted to explain the causes of deforestation. Geist and Lambin (2001) analyzed 152 individual studies of deforestation which identify proximate and underlying causes and from this they were able statistically to find interlinkages ('tandems') between different proximate causes and different underlying causes as well as linkages between underlying causes and proximate ones. They concluded, not surprisingly, that deforestation can usually only be explained by com-

binations of drivers. However, they did find that clearance for agriculture was the leading proximate cause, due mainly to the conversion of small holder forest land to permanent agriculture (but not to shifting cultivation). They also discussed whether deforestation was driven more by poverty, which they consider generally to characterize community-based subsistence activities, or by capital which may represent commercial, rather than community-based activities. Results showed that 42% of the sampled cases were poverty driven, and a similar number capital driven, some of the later involving smallholders as well as larger entrepreneurs, as the meta-analysis took frontier conditions to represent capital-driven deforestation.

Kaimowitz and Anglesen (1998) carried out a meta-analysis of the results of 150 econometric deforestation models. They concluded that clearance for agriculture and pasture was the major driver (not logging in most cases), but find no conclusive evidence to suggest that poor people deforest more than richer ones, or vice versa, although undoubtedly physical features of the landscape (accessibility, slope etc.) do affect the probability of deforestation. Higher off-farm wages and secure land tenure both correlated with lower deforestation levels; credit, particularly for cattle rearing, but also possibly for fertilizer, raised deforestation levels (i.e. more deforestation in more commercialized areas). However, both this study and that of Geist and Lambin were based on studies published during the 1990's, thus reporting on deforestation that had been occurring before this; Rudel et al. (2009) make the claim that although smallholders were responsible for most deforestation in the period from 1960 to 1980, and were supported in this by government policies, since then there has been a shift such that large scale commercial agriculture is now globally the dominant factor; and although there are a few detractors (e.g. Lopez-Carr & Burgdorfer, 2013), most up to date studies do tend to find increasing evidence of the role of commercial agriculture in deforestation.

The summary chapter in a recent collection of 40 papers on deforestation (Pasiecznik & Savenije, 2017) attributes it mainly to commercial agriculture. Kissinger et al. (2012) indicate that 80% of all deforestation is related to agriculture; in Latin America, two thirds is thought to be commercial, while they estimate that in Africa and Asia commercial agriculture is responsible for about one third of forest clearance and subsistence agriculture for a further one third. Ferretti-Galon and Busch (2014), using a spatially explicit approach on 117 studies, confirm that deforestation is primarily related to large scale clearance for agriculture and pasture. Rudel et al. (2009) show that in the countries with most deforestation in absolute terms (Brazil and Indonesia), this is almost entirely the result of commercial agriculture and McAlpine et al. (2009) supports this in their finding that expansion of commercial beef production is at the heart of most deforestation in Latin America. However, it is important to see that commercial agriculture does not always imply industrialized or large scale agriculture; it can also be smallholder production for growing markets, particularly for export crops such as cocoa, coffee, avocado, etc. as well as for meat, which makes clarity on the matter difficult. DeFries et al. (2010) show that national deforestation rates were positively correlated both with levels of agricultural exports and with urban population growth rates during the period 2000–2005; moreover, crucially they show that deforestation is not related to rural population growth, while Ferretti-Galon and Busch (2014) find that poverty is negatively related to deforestation (i.e. poor people deforest less).

It is often stated that from the 1990s onwards, plantation agriculture has become a major driver of deforestation in many parts of Asia and that in Latin America, and particularly in Brazil, the opening of forest roads has enabled large scale expansion of cattle ranching and crops such as soy. In Africa a larger part of the deforestation is carried out by smallholders (De Sy et al., 2015; Kissinger et al., 2012; Rudel, 2007). It is likely however that at least the direct drivers

vary enormously not only from country to country but also within countries, across different socio-ecosystems (Moonen et al., 2016). As such, some countries, and some areas within them, may be more subject to loss from subsistence agriculture while others are more susceptible to commercial clearance. Unfortunately this has not been analyzed systematically; the majority of academic studies on deforestation at country or sub-country level do not distinguish between different types of agriculture, particularly those studies that are based on remote sensing analysis. We also observe that ground-level studies that are based on surveys in particular, limited rural areas, tend to self-select their locations in order to focus on understanding the motivations of small farmers. While this is understandable, it leaves aside the bigger picture and may inadvertently give the impression that these are the only agents of deforestation present. We therefore reviewed what literature is available on the balance between small farmers/communities and commercial/agro-industrial actors at national and subnational level, focusing on recent studies in the countries represented in our sample.

Portillo-Quintero and Smith (2018) for example indicate that for the case of Mexico deforestation is much more prevalent in tropical dry forests than in other forest types, and that in some states (Guerrero and Oaxaca) it is caused by large scale oil palm and cattle rearing while in the Yucatan peninsula it is driven by immigration of small scale agriculturalists, although larger patches of clearance are attributed to commercial actors. This latter tendency they also found in Nicaragua, where other evidence indicates that it relates to the boom in milk production for export. However, Ellis, Romero Montero, Hernandez Gomez, Porter-Bolland, and Ellis (2017) in a detailed study of the Yucatan find that clearance there is not due to subsistence farming but rather to large scale ranching and fires of woody debris following hurricanes. In Costa Rica, Portillo-Quintero and Smith (2018) attribute deforestation (their study was limited to tropical dry forest areas) not to agriculture but to urban expansion and (somewhat surprisingly) to ecotourism development, while in Chile, where overall forest cover is increasing not decreasing, as a result of afforestation, natural forest is being lost to extensive pasture development (De Sy et al., 2015; Echevarria, Newton, Nahuelhual, Coombes, & Rey-Banayas, 2012).

For the case of central DRC, Moonen et al. (2016) find that although deforestation is caused by agriculture at community level, it is not being carried out by the poorest farmers, nor even by the majority. Instead, it is associated with a small number of farmers within the communities who are better connected to outside markets, often with assistance from outside agents. This phenomenon is also observed in Madagascar (Horning, 2012; Moser, 2008). Tegegne, Lindner, Fobissie, and Kanninen (2016) in Republic of Congo interviewed government officials and found that 45% considered subsistence agriculture currently to be an important or very important driver, and only 15% agro—industry. Looking into the future, however, 55% thought subsistence agriculture would continue to be a major driver and 80% believed that agro-industry would be a threat to forests. Industrial logging was considered the major cause of forest degradation by 70% now and 75% for the future. In Manica province in Mozambique, Ryan, Berry, and Joshi (2014) found that 35% of forest clearing events (n = 79) were associated with small scale agriculture, while 23% were associated with construction and infrastructure, 13% with charcoal and 11% with logging; only 3 events were related to commercial agriculture. However, the areas involved are not reported, and it is probable that commercial clearance involves much bigger areas than subsistence agriculture or local level cash cropping. There have also been reports of land grabbing and associated deforestation in Mozambique associated with agro-industry (Clements & Fernandes, 2013). However, in Ghana, most studies portray small scale cocoa production as the central deforestation factor (Acheampong, MacGregor, Sloan, & Sayer, 2019; Appiah et al., 2009), with no mention of larger production units, although a recent (non peer-reviewed) study indicates that a great deal of deforestation is occurring outside the cocoa zones, due to mining, logging, fires and large scale agriculture for other crops (Satintelligence, 2019).

For Vietnam, Khuc, Tran, Meyfroidt, and Paschke (2018) identify both small scale and industrialized agriculture as drivers in the preamble to their study, but subsequently do not differentiate between these in their analysis. Thuy, Moeliono, Hien, Tho, and Hien (2012) show that drivers vary greatly between regions, with commercial coffee plantations prominent in the highland plateau areas and subsistence food production in the north east. Meyfroidt, Phuong, and Ahn (2013) show that the coffee production is mainly in the hands of capital-rich immigrants from other parts of the country and that it is displacing the earlier indigenous farmers, causing deforestation indirectly as the latter move into forested areas. This pattern of displacement is also noted by Ingalls, Meyfroidt, To, Kenney-Lazar, and Epprecht (2018) as common in the Mekong region. In Cambodia, Nathan and Pasgard (2017) conducted surveys at local level in the Oddar Meanchy project and found that local people place the blame for deforestation on 'high ranking people' from businesses, government and particularly the military, who are behind large scale forest concessions which result among other things in evictions. In Laos, Phompila, Lewis, Ostendorf, and Clarke (2017) show that the dominant land use change is from natural forest and shifting cultivation to rubber plantation, and Boillat et al. (2015) note that this is not poverty driven but financed by external investments, while Cole, Wong, Brockhaus, Moeliono, and Kallio (2017) also highlight the powerful actors behind these changes. Finally, in Nepal, deforestation tends to be related to community uses of forest, particularly illegal harvesting, but also overgrazing, encroachment for small scale agriculture, etc. Conversion to commercial agriculture is not an issue in Nepal, but Paudel, Khatri, Khanal, and Karki (2013) point out that the timber harvesting, particularly in the Terai where deforestation rates are highest, is usually the result of collusion with corrupt forest officers, and driven to a large extent by forces outside the communities.

Thus, we can conclude that although small scale farming at community level is recognized in academic studies as *one* of the drivers of deforestation in most of the countries we include in our study, it is by no means the most important. Moreover, it is evident that these small scale activities may be driven by forces which cannot be manipulated by interventions at the local level.

4. Attribution of responsibility for deforestation in literature on REDD+ policy

A number of researchers have analyzed national REDD+ documents with a view to understanding how the causes of deforestation are presented in REDD+ documents. Kissinger (2011) examined 20 R-PPs submitted around 2010 to the World Bank for consideration under the FCPF REDD+ program. In 16 of these, agriculture was identified as the main cause of deforestation, and many cited shifting cultivation as the primary driver (Kissinger, 2011, p. 12), although industrial agriculture was mentioned in some cases (e.g. Suriname, and in Indonesia in Kalimantan and Sumatra, though smallholder agriculture was identified as the chief culprit in Sulawesi). Only two (Argentina and Vietnam) clearly indicated industrial/large scale commercial agriculture as the key factor; six identified smallholder agriculture as the key driver while five cited both commercial and smallholder agriculture as major causes. The remainder did not make a clear distinction between these types of agriculture. Hosonumo et al. (2012) reviewed data from a broader range of REDD+ policy texts relating to 46 countries. These coun-

tries had made analyses of their deforestation drivers in the R-PPs and in the R-PINs that they had submitted to the FCPF, and reported these findings in their national Communications to the UNFCCC. They may also have referred to country profiles that had been prepared by local research partners for the Centre for International Forestry Research (CIFOR) as part of their REDD+ planning, in the period 2008 to 2011. Hosonumo et al. (2012) distinguished subsistence from commercial agriculture and causes of deforestation from those of degradation. They found that overall, commercial agriculture is presented as the largest driver of deforestation (estimated to be responsible for 40% of all forest emissions), followed by subsistence agriculture, while logging for timber is said to drive most of the degradation, followed by firewood collection and charcoal. In a study of R-PPs for 18 African states, Wehkamp, Aquino, Fuss, and Reed (2015) find that most emphasize indirect drivers, particularly institutional and policy issues, with insecure land tenure being considered a key driver in all 18. In all cases, small scale agriculture is mentioned as major driver, but large scale agriculture is also identified as a driver in 17 of them. This ties in with a study by Kleeman, Baysal, Bulley, and Fürst (2017) for Ghana which showed that when surveyed, government officials consistently put more emphasis on indirect drivers (particularly institutional and legal weaknesses) and population growth, while academic studies tend to highlight geophysical factors.

The analysis that we will present below complements these studies not only by analyzing the social attribution of drivers of deforestation in the most recent documents produced by REDD+ countries, but also by focusing on the relative extent to which the planned REDD+ activities are directed towards these different agents of deforestation. We also consider how planned activities are divided between direct and indirect drivers, and what this implies about the perceived roles of large versus small scale actors. This on the basis that tackling the expansion of large scale commercial enterprise is *a priori* more likely to be done via indirect means such as legislation, better enforcement of existing laws, zoning and the tax environment, while tackling small farmer and community-based deforestation is more likely to be done at a project level, via direct subsidies or incentives.

5. Roles and responsibilities of communities in national REDD+ plans

In Table 1, the countries are ordered by the extent to which deforestation is attributed in their ER-PDs to small scale agents, that is small farmers and communities (shown in third column). The table indicates that in only three of the 12 cases (Laos, Vietnam and Republic of Congo) are large scale and industrialized actors

held to be directly responsible for more than 50% of deforestation. In the majority – nine cases – more than half of all the direct drivers of deforestation are perceived to be associated with small scale actors, although in general it is acknowledged that such local actors are to some extent responding to indirect drivers whose roots are external, such as market forces, poor governance and failure to enforce law. Indeed, many such indirect drivers are identified in the texts, but they are hardly ever attributed to any particular group of agents; with certain possible exceptions ('poverty' for example, as this would presumably relate mainly to small farmers and communities), they appear to be seen as underlying *all* deforestation.

Turning to the measures or actions proposed to combat deforestation under REDD+, it is usually clear to whom direct REDD+ activities are addressed. For example, improved charcoal production technology, agroforestry and conservation of community forests are evidently aimed at local communities and small farmers, while avoided forest conversion to oil palm estates, and land use planning for infrastructure are aimed at larger, more industrialized actors. Enabling activities, which have to do with indirect drivers, and which include strategies such as strengthening of agricultural value chains, implementing strategic planning, and improved policies for forest governance, may have a more diffuse effect, possibly affecting both local and large scale agents. Our analysis shows that more than half of the direct measures proposed in *every* country (except Costa Rica where all measures are directed to indirect drivers) are targeted to small scale actors. Importantly, this is regardless of whether these actors are actually considered as the key actors behind deforestation in these documents, as it is seen also in the three countries where these local actors are not identified as bearing the major responsibility for the deforestation. In the countries where local actors and communities are portrayed as the main actors behind deforestation, there appears to be some relationship between the number of REDD+ interventions directed towards small scale actors and the extent to which they are considered to be the cause of deforestation, but it is by no means a clear correlation and there are a number of notable outliers. One of these is Vietnam where, as Table 1 shows, the REDD+ documents attribute the main responsibility to large scale clearance for plantation crops by companies and parastatals, but 100% of efforts in the REDD+ plan of action are being directed to local communities. Another outlier is Costa Rica where local agents ('farmers') are seen as 100% of the cause, but where no direct measures are being taken that deal directly with them; the REDD+ plan relies entirely on enabling or indirect measures. In eight cases, measures aimed at small scale actors seem to outweigh the perceived importance of these actors as a cause, for example in Ghana, where although

Table 1
Attribution of drivers of deforestation, and targeting of REDD+ measures, to local actors in national ER-PDs.

Country	Direct drivers				Indirect drivers	
	No. of direct drivers identified	Approx. % of direct drivers attributed to local actors	% of direct REDD+ measures that focus on local actors	% of the direct drivers that are addressed in the plan	No of indirect drivers identified	% of the indirect drivers that are addressed in the plan
Madagascar	7	100%	90%	80%	10	60%
Costa Rica	3	100%	0	Not possible to determine	9	20%
Mozambique	6	90%	100%	80%	9	30%
Nicaragua	6	70%	100%	40%	14	40%
Mexico	20	70%	100%	60%	8	25%
Nepal	6	70%	70%	100%	9	20%
DRC	6	70%	70%	40%	5	60%
Chile	12	60%	90%	30%	14	70%
Ghana	8	60%	100%	40%	7	60%
Laos	5	50%	70%	80%	5	60%
Vietnam	7	40%	100%	40%	0	na
R. Congo	8	30%	60%	60%	5	40%

small farmers are seen as being only about 60% of the 'problem', 100% of the direct interventions are directed towards them.

It might be argued that this skew in the balance of the targeting of direct interventions is because although small scale actors may be best dealt with through direct actions (e.g. through capacity building, subsidies and other supports), large scale actors can be tackled better through indirect and enabling measures, such as legislation and enforcement of existing rules; direct measures may simply not be so relevant to this group. It would therefore be expected that where deforestation is associated with larger agents, there would be relatively more emphasis on indirect drivers and indirect/enabling measures. There is however no evidence in our data that this is the case. Indeed in the three countries in which large scale agents are considered more responsible, one identified no indirect drivers at all, and in the other two, fewer indirect drivers were identified than in countries which focus more strongly on local agents. Moreover, relatively few of the indirect drivers were matched with interventions, though this is common to all the countries; overall, less than 45% of indirect drivers are being tackled, while for direct drivers the proportion is nearly 60%. All this again supports our observation that overall far more attention is being paid in planning and implementation of REDD+ to communities and small scale farmers than to the larger agents of deforestation, regardless of the countries' own assessments of the real causes of deforestation.

6. Discussion: problem framing in REDD+ and the role of communities

What our findings have shown is the following. First of all, the recent scientific literature generally points to large scale industrial agriculture as the main driver of deforestation, but although national REDD+ documents reflect this to some extent, they focus more on communities as key actors driving deforestation. Secondly, we found that countries direct more than a proportional share of activities towards communities and local actors than even their own identification of drivers would indicate, and they tend to veer away from actions to tackle indirect drivers, which could stem the deforestation caused by large scale actors. What we can clearly see is that while most global literature, and indeed most literature relating to these individual countries, suggests that (regardless of whether or not it was true in the past) the responsibility for current processes of deforestation can hardly be laid at the door of small scale actors like subsistence farmers today, in REDD+ they nevertheless do get assigned a relatively high level of responsibility. This is not done in a pejorative way, as in the past; they are not 'blamed'. It is rather that these actors are identified as agents on a scale which is quite out of proportion with their actual impacts. This way of framing the problem of deforestation and the role of communities is not without consequences.

For one, by focusing on communities, the emphasis is put on local drivers that are relatively easy to address while distracting attention away from the indirect drivers that are much more difficult to tackle. Indeed, our analysis has shown that countries that assign a high level of responsibility to local actors tend to put less emphasis on dealing with indirect drivers. One reason is that facing up to these indirect drivers can be risky, for reasons related to domestic politics, but also because of potential conflicts with big donors of REDD+. Many authors (Peet et al., 2011; Robbins, 2012; Watts, 2000) have posited that powerful interest groups will attempt to manipulate environmental policy to suit their own ends, often in covert ways. Thus, even when government forestry staff and individual country negotiators are aware that in reality deforestation is mainly driven by large scale commercial companies (Wehkamp et al., 2015), they are unable to focus the strategy

specifically on these drivers, because the commercial concerns involved receive government protection through a variety of above board and below table routes and are never really to be threatened. Hence the government officers responsible for drawing up the ER-PDs, whatever their personal opinions on the matter, are constrained to accept this position; they are unable to take on powerful economic actors within the national sphere. They seem to adopt an unspoken strategy of 'environmental proportionality' (Nathan & Pasgard, 2017), avoiding the difficult interventions with high (political) costs which might have large effects in terms of reducing emissions, in favor of low cost, less conflictive interventions which will inevitably have much less effect. In some cases, the justifications that are given (i.e. the drivers are connected with local activities) seem to be accepted as valid by the communities themselves. For example, in a study of 23 REDD+ initiatives in 6 countries (Sunderlin et al., 2014), people in the communities where the projects were taking place mentioned small scale timber extraction, subsistence agriculture, fire and fuelwood gathering as drivers almost three times more frequently than large scale plantations, commercial agriculture or ranching and commercial timber extraction, although there were serious and large scale external pressures operating in at least half of these cases. On the other hand, as mentioned above, Nathan and Pasgard (2017) found strong local awareness of the contradictions involved, in Cambodia.

The donors for REDD+ initiatives, often from western European countries, operating via multi-lateral funds such as the FCPF and the UN-REDD+ program, are also aware of the importance of large scale commercial deforestation but may have their own reasons for not rocking the boat, which include their commercial, diplomatic and geopolitical interests. However they may also want to avoid being accused of trying to limit economic growth of the developing countries involved or trying to intervene in domestic development policy. The voice of the commercial concerns themselves would be present, but unstated in all this. Such a situation is particularly obvious in cases such as Indonesia and Malaysia, where most of the deforestation is the result of expansion of large scale commercial palm oil plantations. Brockhaus et al. (2014) for example show through an analysis of discourses around REDD+ in six countries (Indonesia, Vietnam, Brazil, Cameroon, Nepal and Papua New Guinea) that REDD+ is indeed supposed to include national level policy reforms and measures to address the systemic drivers of deforestation in both forest and other sectors (Angelsen & McNeill, 2012). However, the voices supporting such transformative approaches are hardly apparent (with the exception of Nepal); the dominant visions are ones that do not directly deny, but simply ignore, the national drivers of deforestation and degradation such as expansion of commercial agriculture and logging activities.

However, the focus on communities is not just a way to distract attention away from large scale drivers; it is also convenient for other reasons. Financial support under REDD+ to communities is perceived as beneficial in itself. It is seen as helping poor people and represents an uncontroversial investment for social good. As Skutsch and Turnhout (2018) have pointed out, communities entered into the international REDD+ discourse as a result of fears by some negotiators and observers to the UNFCCC that commercial interests might take up REDD+ as a money making enterprise and force communities and local people out of the forests, denying them access to the forest products on which many partially depend. The REDD+ safeguards have their roots in the idea that REDD+ should do 'no harm' in this sense. But the idea was taken up particularly by groups representing Indigenous Peoples, who have for decades been fighting for land rights, and by many civil society organizations which saw REDD+ as a potential path for regularizing land rights and tenure and to promote social justice (Alangui et al., 2018; Jodoin, 2017; Wallbot, 2014). Indeed negotiations on REDD+ by many domestic and international NGOs

channeled itself along these lines rather than confronting the question of whether the strategies to be undertaken will really be effective in reducing deforestation (Brockhaus et al., 2014). Much of the pressure for a focus on communities in REDD+ also came from organizations such as CIFOR and the Centre for World Agroforestry (ICRAF), who had long been working on forestry issues though a community forestry lens (Cronkelton, Bray, & Medina, 2011; Kusters, de Foresta, Ekadinata, & van Noordwijk, 2007; Larson, Barry, Dahal, & Colfer, 2010; Pacheco, Barry, Cronkleton, & Larson, 2008), building also on powerful stories from around the world which relate examples of how communities can protect the forest (Bray, Antonioni, & Torres-Rojo, 2006; Paudel, Himlal, Lowell, & Keenan, 2017; Svarstad & Benjaminsen, 2017). In practice, it has meant that in several cases, REDD+ has simply been fitted into existing community forestry programs (Dawson, Mason, Mawayafu, Dhungana, & Schoeder, 2018). This has resulted in the reproduction of existing ways of working with communities, but now under the banner of REDD+.

Our analysis of the way in which communities have been highlighted in the ER-PDs both in terms of responsibility and as key actors for implementation of REDD+ is not an isolated observation but fits into a more general pattern. What we see in the problem framing of REDD+ as a whole is a tendency to depoliticize deforestation and render it technical (Li, 2007), and this can be recognized in four ways. The first relates to the semantics employed in the national REDD+ documents and in those of the support organizations – such as the use of the term 'indirect drivers' rather than 'underlying causes'. The difference may easily be overlooked, but 'cause' implies in a stronger sense that some agent can be held responsible. Second, it is visible in the way in which REDD+ prioritizes feasible and pragmatic solutions by targeting small scale areas and actors, which focuses the attention away from politically more sensitive approaches that would target powerful industrial interests, as has also been observed by many other scholars (Brockhaus et al., 2014; Holmgren, 2013; Wehkamp et al., 2015). Thirdly, the focus on win-win approaches that is so prominent in REDD+ and serves to persuade donors to fund and communities to engage with REDD+, is also a sign of de-politicization since it tries to mask the uncomfortable fact that these approaches also inevitably involve losses and painful dilemmas (Caplow, Jagger, Lawlor, & Sills, 2011; Hirsch et al., 2011; Robiglio, Armas, Silva Aguad, & White, 2014; Turnhout et al., 2017). Finally, we would point out that de-politicization and rendering technical are also visible in the heavy focus in REDD+ on technical measures, including calculations of carbon storage, baseline values, and additionality. Though not analyzed in the present study, these procedures are intended to monitor and verify the effectiveness of REDD+ interventions, but tend create the impression that the objectives of REDD+ are uncontested and that performance in achieving them can be unproblematically assessed using technical methodologies (Gupta, Lövbrand, Turnhout, & Vijge, 2012).

Such de-politicization is greatly facilitated by the ongoing trend to organize policy and governance in the form of projects (Li, 2016; Lund, Sungusia, Mabele, & Scheba, 2016; Massarella, Sallu, Ensor, & Marchant, 2018). As part of neoliberal and new public management paradigms, policies are increasingly required to demonstrate their effectiveness (Turnhout, Neves, & De Lijster, 2014) using methods such as auditing and impact evaluation (Cook, van Bommel, & Turnhout, 2016; Power, 1997). Organizing these policies as projects carried out at the local level with communities is advantageous in this context because they can bring new life and initiative to policies (Massarella, Sallu, Ensor, & Marchant, 2018) and because they slice up these policies into discrete units with clearly defined goals and in so doing render them technical and evaluable (Li, 2007; Power, 1997; Turnhout, Skutsch, & De Koning, 2015). Thus, what comes to matter in such project-focused environmental governance

is not just effectiveness as measured against the stated goals but orchestrating an auditable performance. And the attractive success stories generated by these projects further support the focus of REDD+ on communities (Svarstad & Benjaminsen, 2017). The flip-side is also immediately clear since interests and actors outside the project boundaries, large scale drivers and particularly land-use change for industrialized agriculture, disappear from view.

7. Conclusion

Our article has analyzed the role of communities in REDD+ from a problem framing perspective. Communities are frequently framed in international REDD+ discourse as victims in need of 'safeguards' (Carbon Trade Watch, 2020; Climate Alliance, 2015, Bayrak & Marafa, 2016; Center for International Environmental Law, 2014), but are also portrayed as the primary implementers and beneficiaries (Angelsen, 2009; Asare, Kyei, & Mason, 2013; Chhatre, Lakhenpal, Larson, & Nelson, 2012; Naughton-Treves and Day, 2012; Newton et al., 2015). This last reflects a long standing view amongst a significant number of environmentalists that communities are better able to manage local resources than 'outsiders', a view that has been critically discussed among others in Agrawal and Gibson (1999), Adams and Hulme (2001) and Skutsch and Turnhout (2018). Ironically, the adoption of this view within REDD+ seems to be paired with an overemphasis on communities as the main agents of deforestation, which is not supported by international and national literature on deforestation. In order to justify REDD+ putting effort and resources into communities, it was clearly important to show that this approach would be effective in halting deforestation, and this could only be done by making claims about their contribution to deforestation; claims which explicitly or implicitly rest on earlier interpretations of the deleterious effects of traditional farming systems, particularly shifting cultivation. The inconsistency in this argument does not seem to have registered in policy making, although we recognize that our sample was small, and we are aware that one or two countries, such as Colombia and Ecuador, are working towards REDD+ strategies that do address export driven commodity production. But perhaps the focus on small scale agriculture in the majority of ER-PDs is because, as Weatherly-Singh and Gupta (2015) cogently point out, academics, in focusing attention on communities, and with the noble aim of protecting the vulnerable, have not been able to generate viable theories of change on how REDD+ could catalyze action on the real drivers behind deforestation.

CRediT authorship contribution statement

Margaret Skutsch: Conceptualization, Data curation, Writing - original draft, Writing - review & editing. **Esther Turnhout:** Conceptualization, Writing - original draft, Writing - review & editing.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.worlddev.2020.104942.

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