

# GETTING REDD RIGHT

## Reducing Emissions from Deforestation and Forest Degradation (REDD) in the United Nations Framework Convention on Climate Change (UNFCCC)

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## Reducing Emissions from Deforestation and Forest Degradation (REDD) in the United Nations Framework Convention on Climate Change (UNFCCC)

### *Summary of Policy Principles*

1. If tropical deforestation continues at its current rate: approximately 300 billion tons of carbon currently stored in tropical forests will be released into the atmosphere, an enormous part of the world's biodiversity will be destroyed and millions of indigenous peoples and forest communities will be deprived of their main resource base.
2. International carbon markets are the first – and possibly last – chance to create economic value for living forests at a scale commensurate with large-scale deforestation.
3. Scientists, governments and NGOs have made substantial progress towards addressing technical issues surrounding REDD, including how to ensure that REDD is real, verifiable and permanent, as will benefit regions of intact and non-intact forests. Existing IPCC guidelines establish the necessary international standards for monitoring and measuring emissions from deforestation and forest degradation.
4. REDD can help reduce overall global emissions, not just transfer developing countries' emissions to developed countries' industries. This means greater overall reductions at a lower cost than would be possible using fossil fuels alone – not a free ride for industrial polluters.
5. Fully fungible REDD crediting within a sound policy framework is unlikely to “flood the carbon market” or drive prices so low as to displace investments in renewable energy.
6. REDD can benefit biodiversity conservation as well as indigenous and rural peoples. To succeed, national REDD programs must be consistent with UNFCCC and other UN principles, be transparent and have the active involvement of indigenous peoples and forest communities.
7. Rejecting REDD will not defend indigenous rights. Substituting official aid from developed countries for carbon market funding will not be a better, less risky alternative for reducing deforestation. Indigenous rights abuses, often caused by the same activities that drive deforestation, must be addressed directly.

## *Tropical Deforestation and Climate Change*

Clearing and burning tropical forests causes approximately 20% of global greenhouse gas emissions every year – more than all the cars, trucks, buses and trains in the world. In dry years, such as the 1997 – 1998 El Niño, forest and peat fires in the Amazon and Southeast Asia raised this total to as much as 1/3 of global emissions<sup>1</sup>. But neither the UNFCCC nor the Kyoto Protocol addresses deforestation.

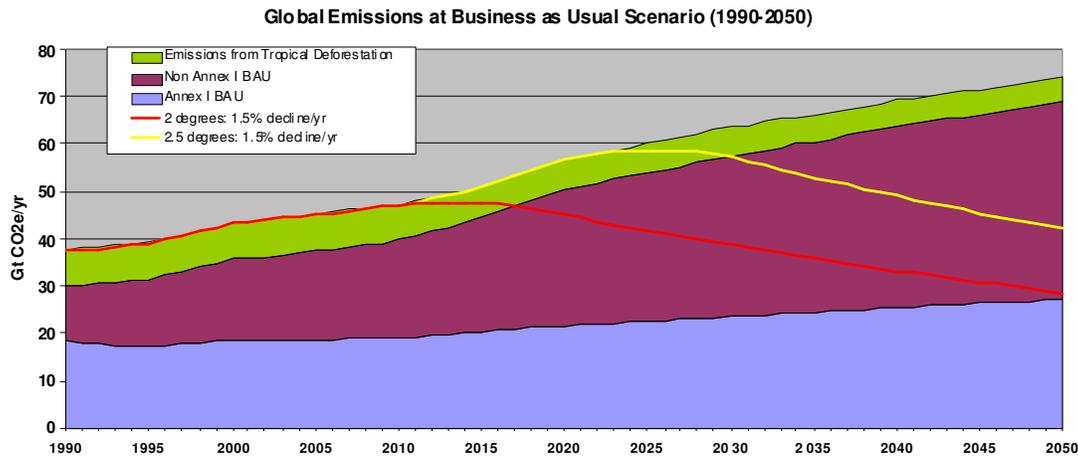


Figure 1 (Emissions reductions pathways to 2° C)

Scientists agree that to achieve the goal of the UNFCCC – avoiding dangerous interference in the climate system – warming must not exceed 2°C. But concentrations of CO<sub>2</sub> in the atmosphere are already so high that global emissions must peak and start to decline by about 2020 to keep this possibility open. To achieve this, emissions from all major sources – developed countries, major developing country emitters and deforestation – must start to decline within the next decade (Figure 1). Reducing emissions from either developed countries or fossil fuels alone would require too steep a decline to be practically feasible to keep warming under 2°C.

The 13<sup>th</sup> Conference of the Parties (COP) to the UNFCCC is discussing Reducing Emissions from Deforestation and Degradation (REDD), and the Subsidiary Body for Scientific and Technical Advice (SBSTA), which has collected and reviewed technical analyses and policy proposals from countries, NGOs and scientists for the last two years, is drafting decision language regarding REDD for the COP.

This paper synthesizes principles and concepts about how carbon market compensation for reduced deforestation – market-based REDD – can help cut global emissions equitably and effectively, while contributing to development goals, protecting biodiversity and watersheds and benefitting indigenous and rural peoples and tropical nations. Several of these principles have also been articulated by various governments as well as Amazonian social movements. This paper also addresses questions that some NGOs and policy makers have raised about how REDD would work.

<sup>1</sup> Page S E, Sigert F, Riley J O, Boehm H-DV, Jaya, A, Limin S (2002). The amount of carbon released during peat and forest fires in Indonesia during 1997. *Nature* 420:61-65.

## Policy Principles

1. If tropical deforestation continues at its current rate: approximately 300 billion tons of carbon currently stored in tropical forests will be released into the atmosphere, an enormous part of the world's biodiversity will be destroyed and millions of indigenous peoples and forest communities will be deprived of their main resource base.

The drivers and dynamics of deforestation differ from region to region and even within regions, but at the most general level, forests currently have more economic value after they have been cut down than when they are standing. Unless a mechanism is put into place that makes forests worth more alive than dead, deforestation will continue until the world's tropical forests are completely destroyed. Globalization and increasing demand for agricultural commodities (e.g. soy and beef) are increasing the profitability of deforestation and pressure to clear forests. In the absence of large-scale incentives for conservation, an enormous number of the world's species of plants and animals – and the resource base of millions of indigenous peoples and forest communities – will ultimately go up in smoke.

Unlike fossil fuel reductions, stopping deforestation is a climate change mitigation option that must be taken now. Delay risks foreclosing the option permanently.

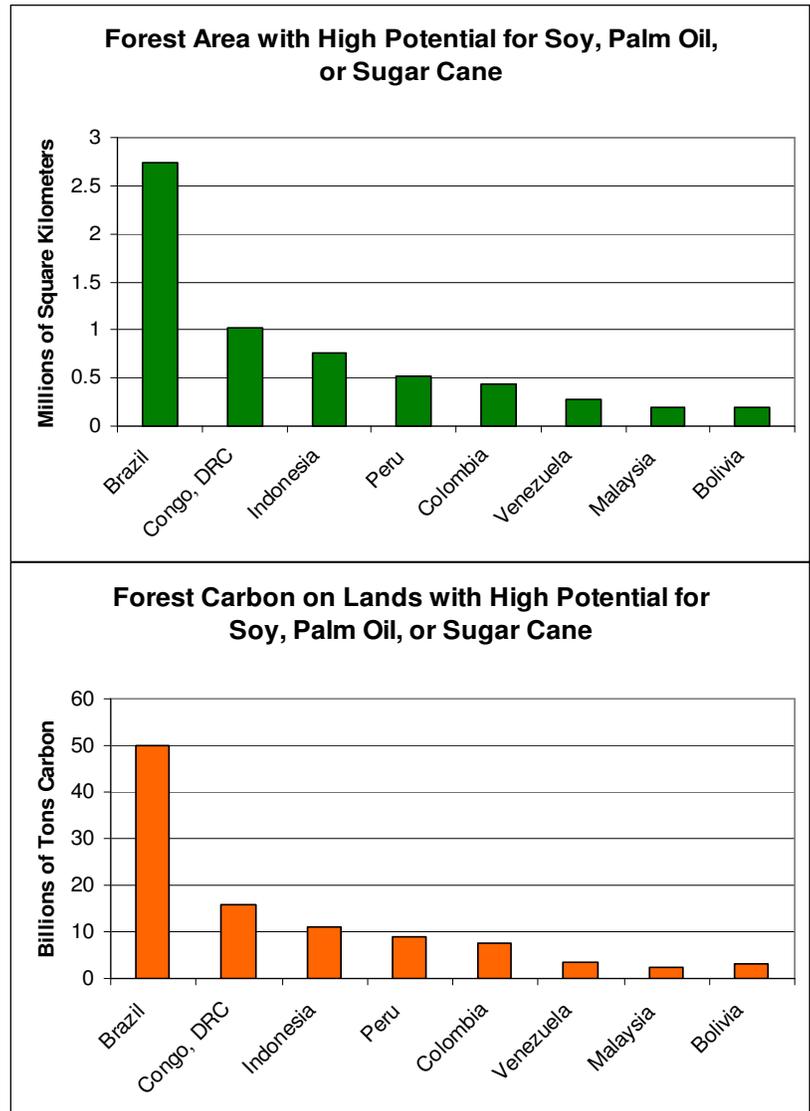


Figure 2. Forest area and forest carbon stocks on forested lands that have suitable soil and climate for major drivers of tropical deforestation (soy, oil palm, sugar cane). Thirty-six per cent of the land suitable for any one of these crops is in Brazil<sup>1</sup>.

1. Stickler, C., M. Coe *et al.*, 2007. Readiness for REDD: A preliminary global assessment of tropical forested land suitability for agriculture. [whrc.org/BaliReports/](http://whrc.org/BaliReports/)

**2. International carbon markets are the first – and possibly last – chance to create economic value for living forests at a scale commensurate with large-scale deforestation.**

Foreign assistance for tropical forest protection has had mixed results and has nowhere shown that it is sufficient to affect deforestation rates<sup>2</sup>. Various international accords (e.g. Agenda 21, Millennium Development Goals) make competing demands on scarce official aid funds, which are also eclipsed by foreign direct investment. While some often cited estimates of the costs of reducing tropical deforestation may be overestimates, it is nonetheless the case that compensation for reduced deforestation will require tens of billions of dollars over many decades into the future.

Developed countries lack the political will – and potentially the resources – to provide funds on the necessary scale to protect tropical forests indefinitely. In the context of climate change, the ethical case for aid is far stronger for adaptation funds for poor and vulnerable countries suffering drastic effects of climate change caused by rich countries' emissions (such as small island states) than for large developing country emitters such as Brazil, India and China.

The Kyoto Protocol entered into force in 2005, and the carbon market it created is already generating roughly \$30 billion per year in transactions and is projected to reach hundreds of billions or more. A global carbon market can mobilize resources for emissions reductions orders of magnitude beyond official assistance. A variety of market and non-market approaches will be needed to address different countries' circumstances, but a robust forest carbon market, initially for high emitting countries, will free up aid funds for non-market mechanisms.

**3. Scientists, governments and NGOs have made substantial progress towards addressing technical issues surrounding REDD, including how to ensure that REDD is real, verifiable, permanent and benefits regions of intact and non-intact forests.**

The 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4, Agriculture, Forestry and Other Land Use (AFOLU)<sup>3</sup> and 2003 Good Practice Guidance for Land Use, Land Use Change and Forestry<sup>4</sup> establish the necessary international standards for monitoring and measuring emissions from deforestation and forest degradation.

*Additional publications containing recent work on these issues are listed in Appendix I of this document.*

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<sup>2</sup> The World Bank, World Wildlife Fund and Government of Brazil Amazon Region Protected Areas Program (ARPA) is a partial exception, inasmuch as Amazon protected areas created between 2004 – 2006, in the context of the government's National Plan to Combat and Prevent Deforestation appear to have contributed to reduced deforestation between 2003 – 2006.

<sup>3</sup> <http://www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.htm>

<sup>4</sup> <http://www.ipcc-nggip.iges.or.jp/public/gpplulucf/gpplulucf.htm>

4. REDD can help reduce overall global emissions, not just transfer developing countries' emissions to developed countries' industries. This means greater overall global reductions at a lower cost than would be possible using fossil fuels alone – not a free ride for industrial polluters.

The reductions needed to keep warming below 2°C are so great that an effective international climate control regime must involve all available sources. The EU currently calls for 30% reductions below 1990 levels by 2020 for industrialized countries. If developing country industrial emissions and deforestation continue along business as usual pathways, even if industrialized countries were to zero out their emissions, it will not be possible to keep below 2°C.

Currently, the only Kyoto mechanism that involves developing countries is the Clean Development Mechanism (CDM), which allows “Annex I” developed countries to offset their own emissions by doing emissions reduction projects in developing countries. But because the CDM was not designed to bring down overall global emissions, it only moves a part of business as usual emissions from the developing world to developed countries. At best, global reductions are no greater than those stipulated by developed countries' caps. This also assumes that all CDM projects would not have happened without project investments (or are “additional” – frequently a questionable assumption).

Market-based REDD – as EDF, WHRC, IPAM and many governments are proposing<sup>5</sup> – calls for national level reductions in deforestation below an historical baseline and calls on industrialized countries to make steeper reductions than would otherwise be feasible in exchange for tropical countries' deforestation reductions. For example, the EU committed to an emissions reduction target of 20% below 1990 levels by 2020 or 30% if other countries took comparable actions. If a large tropical country, or group of countries, were to negotiate a REDD baseline, the EU could hypothetically consider reduced deforestation as comparable action and adopt the 30% target. The EU would hypothetically then allow credits for reduced deforestation into the carbon market, providing access to developing countries. REDD can contribute to bringing down business as usual emissions trajectories, thus helping to keep warming below 2°C.

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<sup>5</sup> Santilli, M., P. Moutinho, S. Schwartzman, D. Nepstad, L. Curran, C. Nobre. 2005. Tropical deforestation and the Kyoto Protocol: an editorial essay. *Climate Change* 71: 267-276. Moutinho, P. and S. Schwartzman 2005. *Tropical Deforestation and Climate Change*. Instituto de Pesquisa Ambiental da Amazônia (IPAM) and Environmental Defense (ED).

5. Fully fungible REDD crediting within a sound policy framework is unlikely to “flood the carbon market” or drive prices so low as to displace investments in renewable energy.

Even relatively modest reductions targets in Europe and the US (such as those in recent US legislative proposals) will require substantial actual emissions reductions. Recent modeling of Amazon carbon supply shows that while up to 94% of Amazon deforestation would cost under \$5/tonC to stop (much less than previously estimated)<sup>6</sup>, these reductions would represent only a small part of those needed to achieve moderate reductions targets (Figure 3).

If the rate of REDD compensation to tropical countries corresponds to the annual reductions in emissions below a historical baseline, the number of credits that come on the market at any one time will be limited, thus the effects on carbon prices will also be limited. Suppose Brazil was on track to clear 20,000 km<sup>2</sup> per year until the Amazon forest was gone. If Brazil then succeeded in reducing its emissions to zero over a period of 10 years, it would only receive compensation for the value of each year’s reduction as it occurs (not all at once). This reduction might begin at 20 million tons of carbon in the first year, climbing to 200 million tons by the end of the decade. Thus, the danger of forest carbon flooding EU or US carbon markets, as long as the credits are based on robust emissions targets, is nil. Adding reduced deforestation from other regions would increase carbon supply but still fall far short of the reductions needed for even the most modest targets.

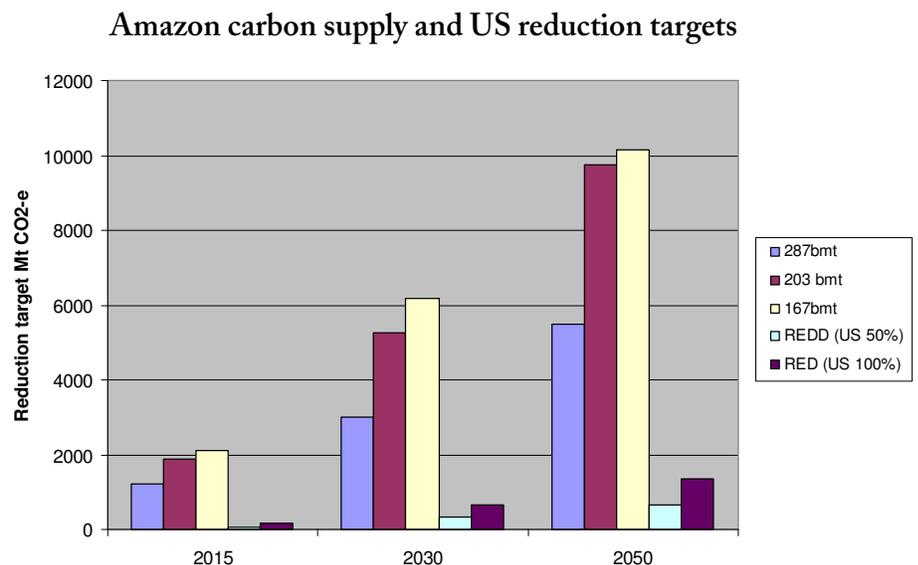


Figure 3. Amazon carbon supply and projected US reduction targets.

(US emissions allowances from MIT EPPA model, cumulative allowances available 2012-2050. 167 bmt = Sanders-Boxer 2007; 203 bmt ~ Lieberman-McCain 2007; 287 bmt ~Udall – Petri 2006.<sup>7</sup> REDD represents Amazon carbon supply<sup>8</sup>, assuming that the US buys 50% and 100% of supply.)

<sup>6</sup> Nepstad, D., B. Soares Filho *et al.*, 2007. The Costs and Benefits of Reducing Carbon Emissions from Deforestation and Forest Degradation in the Brazilian Amazon. Woods Hole Research Center, Woods Hole, MA. [http://www.whrc.org/policy/BaliReports/assets/WHRC\\_Amazon\\_REDD.pdf](http://www.whrc.org/policy/BaliReports/assets/WHRC_Amazon_REDD.pdf)

<sup>7</sup> Paltsev, S., J. M. Reilly *et al.*, 2007. Assessment of U.S. Cap-and-Trade Proposals. MIT Joint Program on the Science and Policy of Global Change. Report No. 146.

<sup>8</sup> Nepstad, D., B. Soares Filho *et al.*, 2007. The Costs and Benefits of Reducing Carbon Emissions from Deforestation and Forest Degradation in the Brazilian Amazon. [whrc.org/BaliReports/](http://whrc.org/BaliReports/)

6. **REDD can benefit biodiversity conservation and indigenous and rural peoples. To succeed, national REDD programs must be consistent with UNFCCC and other UN principles, be transparent and have the active involvement of forest and rural peoples.**

Some NGOs are concerned that indigenous and local communities would not benefit from or would even suffer active harm from REDD. They fear that companies or authoritarian governments would seize indigenous peoples' lands in order to gain carbon credits. National REDD programs must provide real benefits to forest peoples and other rural populations if they are to succeed. In order to do so, they must be transparent, consistent with the principles of sustainability and respect for rights of the UNFCCC and other relevant UN accords and consult and involve forest peoples.

Reducing deforestation itself would directly benefit many indigenous peoples around the world. The major drivers of deforestation in the most active tropical frontiers – oil palm, soy, cattle ranching, industrial logging – typically provide few benefits to local and particularly indigenous communities and more often result in loss of land, livelihoods and lifeways. Carbon crediting for REDD will depend on effectively reducing deforestation and demonstrating those reductions. Since indigenous and rural communities in most of the tropical world do not cause large scale deforestation, expropriating indigenous lands will not result in less deforestation and so will not generate REDD credits.

In Central Africa, poor rural communities do cause some deforestation by clearing for semi-subsistence agriculture. But industrial logging causes substantial forest degradation. In this case, REDD – whether market-based or not – must provide real alternatives for subsistence farmers in order to be effective, while logging must also be effectively regulated. Expelling local peoples is a recipe for intractable conflict, not for sustainable reductions of deforestation and degradation.

Indigenous peoples and indigenous rights advocates have legitimately denounced serious and chronic abuses of indigenous rights in many parts of the world, some caused by top-down, authoritarian conservation schemes<sup>9</sup>. But overwhelmingly, the same factors driving most deforestation – large-scale infrastructure development, industrial agriculture and logging coupled with weak governance capacity or official corruption – also entail abuses of indigenous peoples' rights. Effective incentives to reduce deforestation will tend to favor forest peoples.

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<sup>9</sup> Chapin, M., 2004. A Challenge to Conservationists. World Watch Magazine, November/December, pp. 17-31. World Watch Institute, Washington DC.

7. **Rejecting REDD will not defend indigenous rights. Substituting official aid from developed countries for carbon market funding will not be a better, less risky alternative for reducing deforestation. Indigenous rights abuses, often caused by the same activities that drive deforestation, must be addressed directly.**

Some NGOs oppose market-based REDD, arguing that the private sector will simply expropriate tropical forests for carbon credit. Some support official assistance aid or a fund derived from taxes on carbon market transactions in order to create incentives for reducing deforestation that benefit local communities. But for either a fund or a market mechanism, REDD funds must come through national governments (only a national government can set and negotiate a national deforestation baseline, or conduct monitoring and measurement of national deforestation rates.) Thus, if there is really a danger that REDD programs will harm indigenous and local communities or infringe sovereignty, the danger exists in either case, and replacing a market mechanism with official assistance is not a solution.

Rejecting REDD will not protect indigenous peoples' rights or lands. To the contrary, compensation for the ecosystem services may be a powerful means of strengthening forest peoples' rights to traditional territories and recognizing their central role in forest conservation. In fact, Amazon forest peoples' organizations have called on their government to pursue market-based compensation for reduced deforestation in the UNFCCC<sup>10</sup>. Transparent, effective and equitable REDD programs must be designed at the national level, actively involve and benefit forest peoples, strengthen government enforcement capacity and provide incentives for legal landowners to reduce deforestation. NGOs and social movements will have an important role in contributing to the design of transparent, equitable and effective national REDD programs and monitoring their implementation.

### *Conclusion*

**The scientific and technical basis for market-based REDD is sound, and the IPCC has established international standards for monitoring and measuring emissions from deforestation and degradation. The UNFCCC parties should send a clear signal to tropical countries, forest peoples and the carbon market that countries that meet these standards – and take action to reduce deforestation – will be allowed access to the regulated carbon market starting in 2013. Such a signal will reduce uncertainty, galvanize research and capacity building and enable major developing country emitters to make voluntary and effective contributions to the global emissions mitigation effort.**

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<sup>10</sup> Message of the Peoples of the Forest to President Lula and Brazilian society at the opening ceremony of the Second National Meeting of the Peoples of the Forest, on behalf of the National Council of Rubber Tappers, Coordinating Body of the Indigenous Organizations of the Brazilian Amazon, and the Amazon Working Group, (2007). Caderno da Aliança, Segundo Encontro Nacional dos Povos da Florestas, Brasília, DF.

## Appendix I

Nepstad, D., B. Soares Filho *et al.*, 2007. The Costs and Benefits of Reducing Carbon Emissions from Deforestation and Forest Degradation in the Brazilian Amazon. [whrc.org/BaliReports/](http://whrc.org/BaliReports/)

Laporte, N., F. Merry *et al.*, 2007. Reducing CO<sub>2</sub> Emissions from Deforestation and Degradation in the Democratic Republic of the Congo: A First Look. [whrc.org/BaliReports/](http://whrc.org/BaliReports/)

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Dutschke, M. and Wolf, R. (2007). “Reduced Emissions from Deforestation in Developing Countries – The way forward.” Pp 16-20 in Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, *Climate Protection Programme in Developing Countries*

[unfccc.int/resource/docs/2006/sbsta/eng/10.pdf](http://unfccc.int/resource/docs/2006/sbsta/eng/10.pdf) (1<sup>st</sup> SBSTA REDD workshop results)

[unfccc.int/resource/docs/2007/sbsta/eng/03.pdf](http://unfccc.int/resource/docs/2007/sbsta/eng/03.pdf) (2<sup>nd</sup> SBSTA REDD workshop results)

Reducing Greenhouse Gas Emissions from Deforestation and Degradation in Developing Countries: A Sourcebook of Methods and Procedures for Monitoring, Measuring and Reporting. 2007. Global Observation of Forest and Land Cover Dynamics (GOFC-GOLD), a technical panel of Global Terrestrial Observing System (GTOS). [www.gofc-gold.uni-jena.de/redd/](http://www.gofc-gold.uni-jena.de/redd/)

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Stickler, C., M. Coe *et al.*, 2007. Readiness for REDD: A Preliminary Global Assessment of Tropical Forested Land Suitability for Agriculture. [whrc.org/BaliReports/](http://whrc.org/BaliReports/)