

PRESENTATION GIVEN AT THE TRANSLINKS
PAYMENTS FOR ECOSYSTEM SERVICES WORKSHOP

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THE WILDLIFE CONSERVATION SOCIETY



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REDD as a potential PES market in Gabon

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**Translinks PES meeting
Bronx NY, 20-22 July 09**



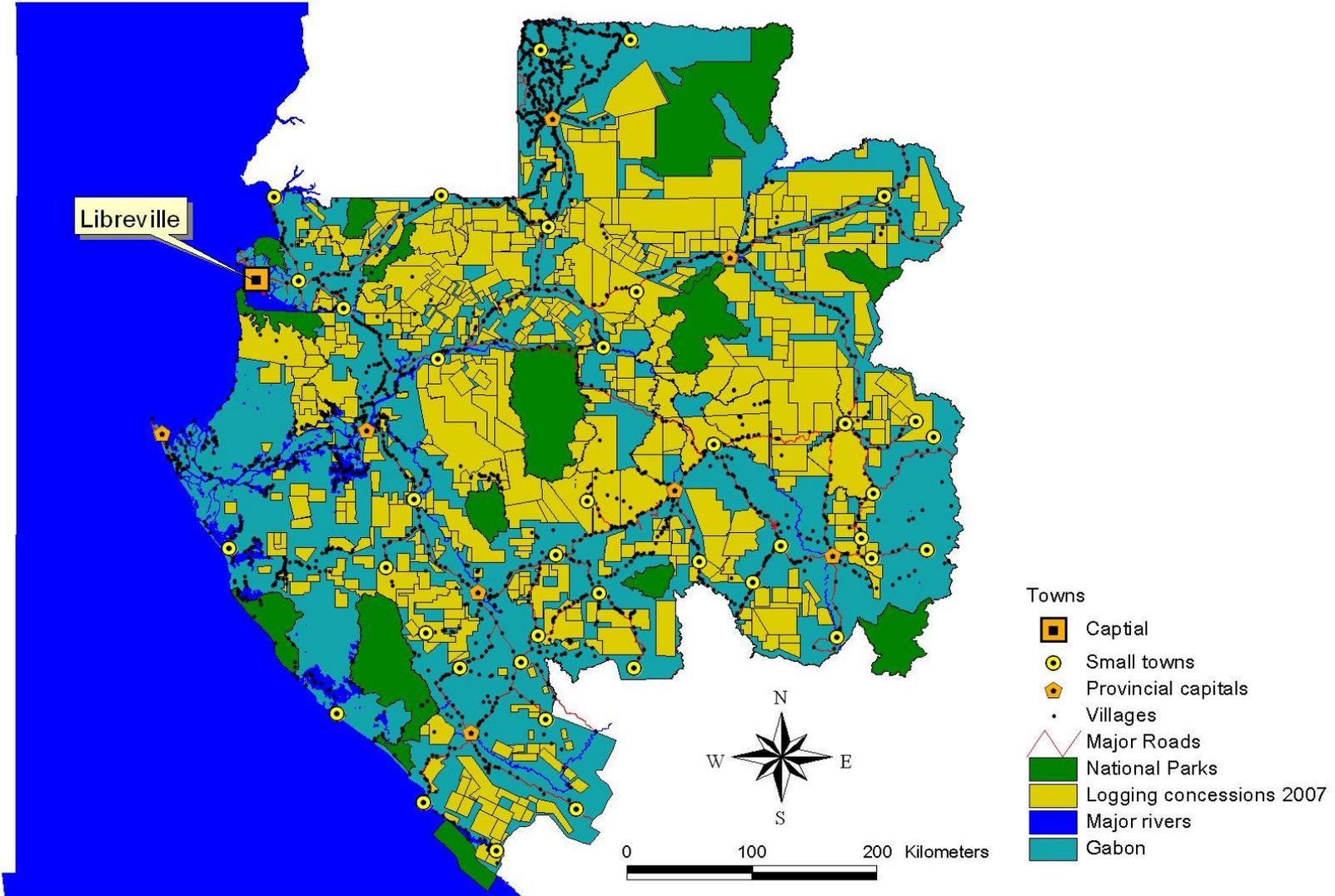
Gabon



- 22m ha of rainforest
- 1.3m people
- Largest population of forest elephants
- Gorillas, chimps, manatee, mandrill etc
- Deforestation rates low (0.05-0.16%), but degradation due to logging significant given area involved (12m ha production forests, 3+1m ha APs, 6m ha community zone)
- WCS works in two main landscapes - Ivindo-Chaillu Forest Landscape and Congo Basin Coast



Gabon





How could REDD help conservation in Gabon?

- Financing PA's
- Promoting more sustainable logging practices
 - Maintains value of forest as forest, so keeps opportunity costs of conversion to non-forest high
 - Potential wildlife + biodiversity co-benefits

How could REDD help conservation in Gabon?





How could REDD help conservation in Gabon?

- So, four questions:
 - Do we have a product?
 - Do we have buyers?
 - Can we overcome transaction costs?
 - Can REDD produce co-benefits?

Do we have a product? - Hell yeah!

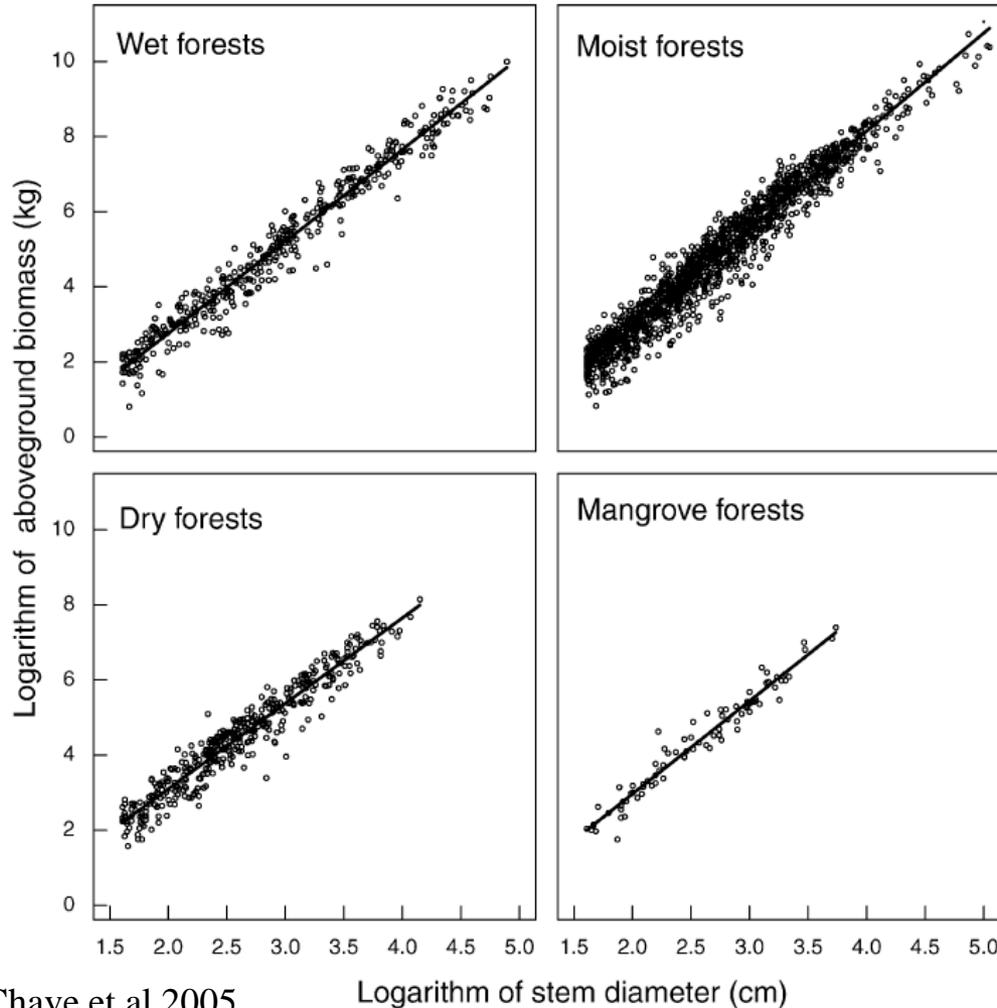
- Shift from normal to reduced-impact logging can reduce immediate biomass losses after 1 rotation by 30-50% (Putz et al 2008 - NB % of loss, not % of total biomass)
- Carbon sink effect of 1.5 T CO₂e/ha/yr (Lewis et al 2009) - deforestation/degradation both reduces standing biomass and absorption rate
- White 2009: Improved logging and PA's in Gabon could produce 45m TCO₂e/yr of avoided emissions worth \$645m/yr (= \$43/ha/yr over 15m ha)
- Lescuyer 2006: Ivindo NP (3000km²) could generate 2.2m tC/yr of avoided emissions worth \$22m per year in avoided degradation credits (= \$73/ha/yr over 300k ha)
- Strassburg et al 2008: Gabon could receive a combined incentive of \$1-400m/year (= \$13/ha/yr over 22m ha)



Do we have a product? - Not so fast...

- Problems of additionality and transaction/monitoring/buffering costs not sufficiently evaluated in existing studies
- Virtually no data from CA, let alone Gabon, so studies are based on extrapolation from other continents
- Most existing field data is poor quality, biased or otherwise difficult to use
 - Botanical plots - high quality, but few and avoid gaps, target diversity
 - Forest inventories - incomplete sample, often poor quality and difficult to verify
 - Combination of ad-hoc studies - limited/uneven coverage of forest types
- Data on timescale of more than one rotation virtually non-existent
- Remote sensing not yet up to the task

Do we have a product? - Not so fast...

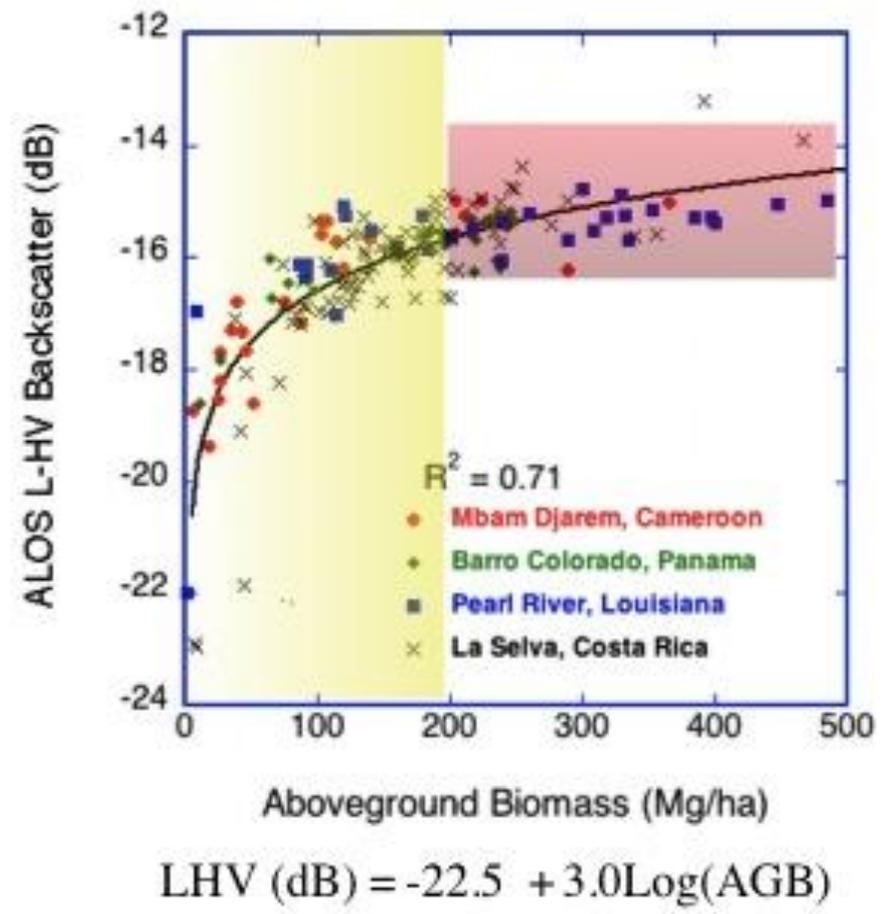


Chave et al 2005

Logarithm of stem diameter (cm)

- None of these trees from CA
- Largest is 156cm dia. = up to 5% of CA trees and 10-20% of biomass are in bigger trees
- All large trees are Dipterocarps
- Logged trees tend to be the bigger ones
- Measuring height helps - but very little existing data

Do we have a product? - Not so fast...



- Satellite signals saturate above 100-150 T biomass/ha
- Gabon is in the 2-500 range...
- Potential for combination of different imagery to produce more precise measures - still v. controversial
- Probably 2-5 years off at best

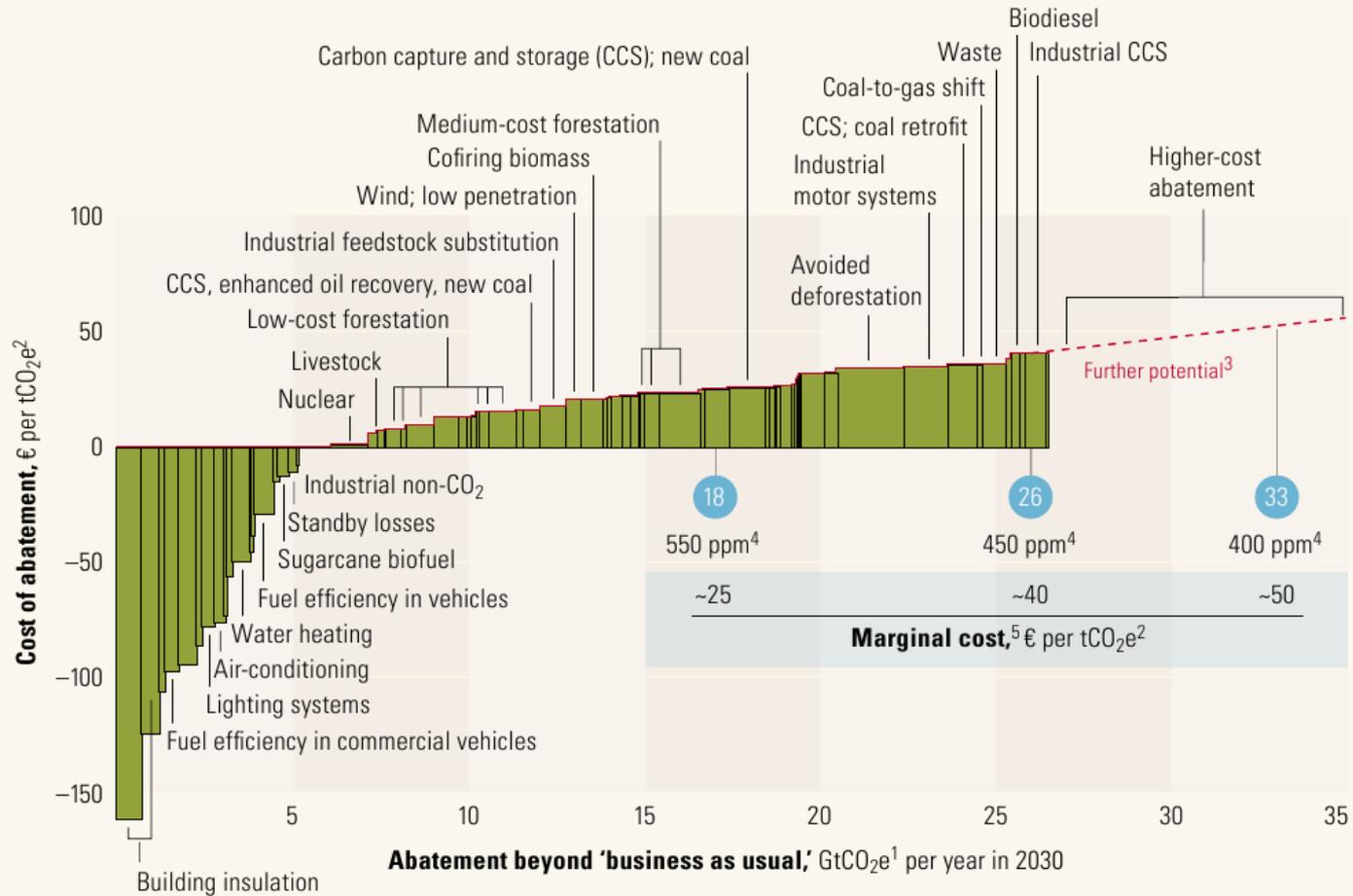


Do we have buyers?

- Probably - strong momentum towards REDD(+)
- Cannot meet the "2 degree" limit to climate change without addressing deforestation/degradation
- Existing voluntary market - but likely to be rapidly superseded
- Forest carbon remains one of the more expensive ways of reducing emissions
- Many hurdles remain, unlikely that a full-blown mechanism will be established for several years

Do we have buyers?

● Approximate abatement required beyond 'business as usual,' 2030



Can we contain transaction costs?

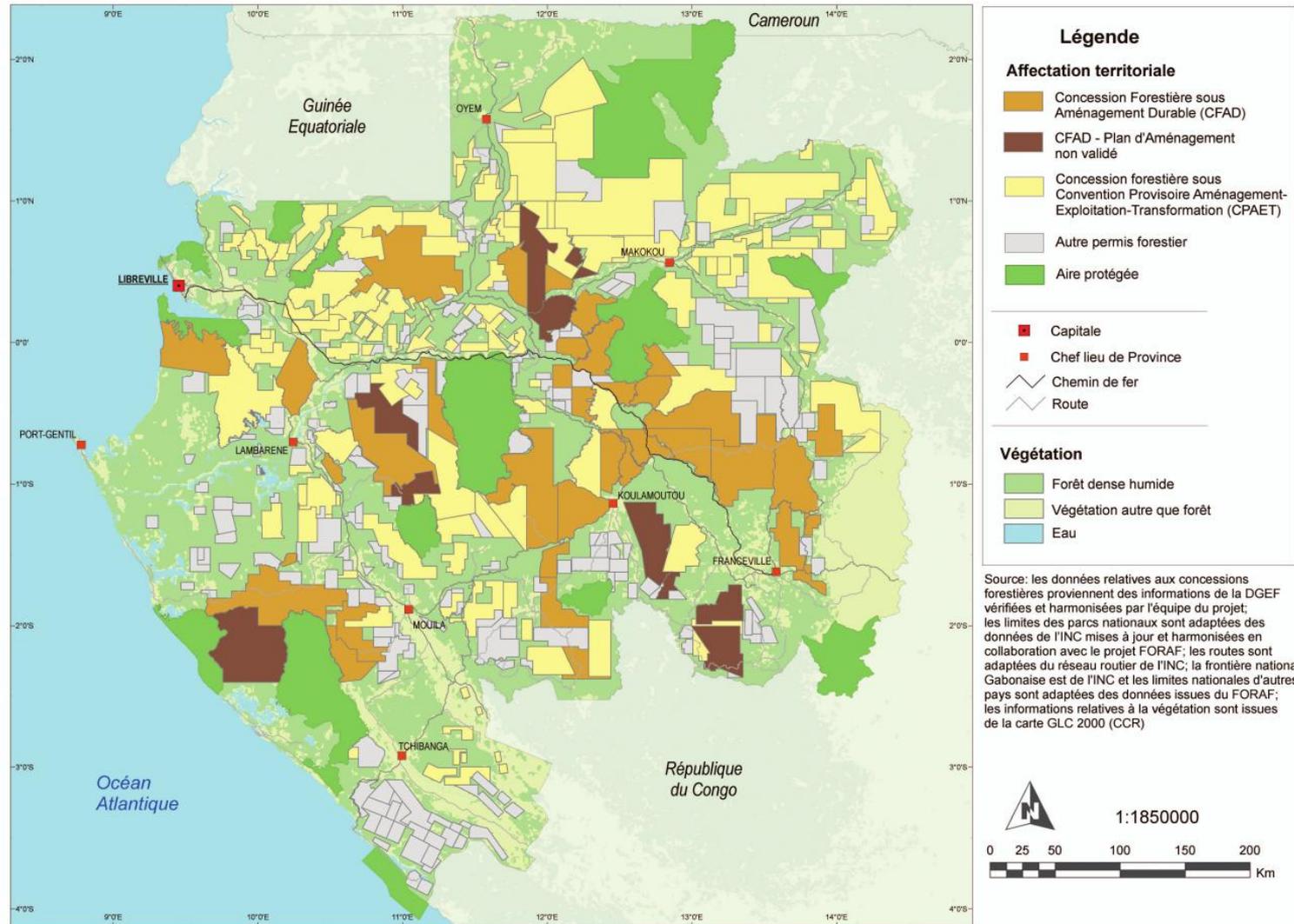
- Uptake of Improved Forest Management under Kyoto very low - due largely to onerous reporting requirements vs potential benefits
- Verification of emission reductions likely to be a major transaction cost
 - Conceptual frameworks exist, but no accredited methodology for evaluating degradation (VCS etc)
 - How do you separate the anthropic portion of the effect when so little basic science?
 - Degradation is such a small % of the total biomass that sample sizes must be high = verification expensive
 - Inter-annual variability can be a big factor (but need to separate out valid criticism from negotiating points)

Can we contain transaction costs?

- Forest management is mandated by law in Gabon since 2001 - but uptake has been slow
- Studies show that RIL and certification can increase profits, so why is uptake so low? Why will REDD make the difference?
- Adjusting to sustainable forest management will create winners and losers:
 - Potential losers may be obtaining significant rent from current (sometimes illegal) forestry practices - how to compensate without legitimizing their claims/practices?

Current logging in Gabon

CARTE 3 Situation des permis forestiers en 2008



Can we contain transaction costs?

- Net damage due to logging is a function of:
 - Number of trees harvested per rotation
 - Incidental damage when logging (inc edge effects)
 - Infrastructure - roads, etc
 - Rotation period
 - Abiotic factors
- Rotation period is especially important
 - Requires a significant portion of REDD payments be with-held for the length of the rotation (20-30 years)
 - Given high discount rates of both govt and companies, this may significantly reduce attractiveness of REDD/increase the potential cost of REDD



Can REDD generate biodiversity co-benefits?

- Large mammals can persist in well-managed logging concessions
 - ONLY if specific wildlife management practices are adopted = expensive
 - To what extent will improved monitoring of carbon translate into improved management of wildlife?
 - Even FSC is weak on wildlife
- Much less information on general biodiversity
 - WCS currently surveys only elephants and apes with any precision
- Virtually no information on aquatic ecosystems



Can REDD generate livelihoods co-benefits?

- In Gabon major cause of degradation is industry, not local people
- The state is democratically elected and will allocate benefits accordingly...
- Forestry companies have tried revenue sharing with new forestry code - results sporadic, not sustainable
- If REDD promotes more sustainable logging, that contributes to sustainable livelihoods, assuming high % of national employees
- In sections of our main landscapes, there are small numbers of people but who are heavily dependent on the forest



So what should WCS do?

- What are other NGOs doing?
 - Table by activity
 - Table by funding

Gabon strategy

- REDD probably represents the best opportunity in a generation to promote good forest stewardship
- First step: *Get some data on logging + carbon*
 - Initial focus on ecological data is non-threatening
 - Make a real contribution to the debate (and *Gabon / COMIFAC's* negotiating position)
 - Means we become a player in all things REDD in *Gabon* (and more widely in *CA*)
 - Working on carbon and forestry can create a positive relationship with companies
- Next steps:
 - Focus on measuring wildlife and biodiversity co-benefits? (High demand from FSC companies already)
 - Pilot project in partnership with a logging company?



Pilot study of effects of logging on carbon

- 1 year of funding from AFD
- First Second detailed before-and-after study of logging impact on carbon in CA
- Activities:
 - Field data collection in 1-3 logging concessions
 - Controls in NPs?
 - Training/capacity building
- Outputs:
 - Literature review on degradation aspect of REDD, focusing on how to measure in in a real world situation
 - Report of field study, focusing on implications for measurement
 - Methodology/proposal for wider logging + carbon study



Pilot study of effects of logging on carbon

- Pilot at TFF site in Monts de Cristal (July-September 2009)
 - 2 “pockets” of about 45ha each on opposite sides of a river
 - 1 will be exploited using Conventional logging
 - 1 with Reduced impact logging
 - 10 x 1ha plots in each, plus measure all trees over 70cm dbh in the pocket before + after = estimates of AGB + AGB change immediately post-logging
 - Collaboration with U Florida: measurement of logging damage, skidder trails, economic comparison etc
 - Tagging of trees will permit follow-up over long time scale



Pilot study of effects of logging on carbon

- Advantages of TFF site:
 - Sites v. close and v. similar, same forest type
 - Able to get some data rapidly
 - Collaboration with U Florida is great for capacity building
- Risks:
 - Possibility of bias as logging teams will know where the plots are
 - Forest already logged once 30 years ago
 - Not 'true' RIL or Conventional logging
 - Could be accused of exaggerating or minimizing differences
- Regarded very much as a test case (2-3 months effort) to validate methods + train a team before expanding to 'real world' sites



Pilot study of effects of logging on carbon

- Next steps (October onwards):
 - Circulate pilot results for peer review
 - Expand project to 1-3 "real world" sites
 - If possible 1 FSC company, 1 non-managed company in primary forest, 1 site in degraded forest
 - Choice of site is partly strategic, partly scientific (stratify by *C* levels using remote sensing)
 - Where possible have a control not-to-be-logged site in an adjacent PA
 - Will provide the data required to develop a detailed proposal for a pilot project - if that makes sense based on the results.

Gabon: scaling up?

- REDD probably represents the best opportunity in a generation to promote good forest stewardship
- Huge world-wide interest in REDD, many extremely intelligent, highly motivated, well supported individuals and organizations working on it - what can we do better?
- Need to play to our strengths - strong field presence (>20 sites across CA), institutional agility, world-wide network of experts
- Start by focusing on third-party validation, monitoring of biodiversity and/or livelihoods co-benefits?
 - Unique niche that plays to our strengths
 - Requires new expertise within WCS
 - Requires clever partnerships
 - Requires a significant investment - do it properly or not at all
 - Regional approach necessary



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