

Investing in Emerging Market Forestry Projects Some Thoughts for the Millennium Challenge Corporation¹

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I. Introduction

Thanks for inviting me.

This is an important subject for MCC, the investment community and the world more broadly.

My comments this morning are in three parts:

- First I'll provide some background on timberland investment in general, and emerging markets more specifically.
- Then I'll turn to some specific issues related to forestry investing in emerging markets.
- Finally, I'll conclude with some thoughts on positive and negative ways MCC can contribute to this area.

My intention is to leave lots of time for questions and discussion.

I do not plan to discuss global timber supply and demand issues, but we can cover that in the Q&A if you are interested. Here's my view in one sentence: despite the rising

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demand for bio-fuels and the possibilities for carbon credits, I think wood will be relatively abundant for the next couple of decades.³

II. Private Equity Investment in Timberland

a. Some background

- By “private equity” I mean the large-scale private ownership of forestry assets by pension funds, endowments, foundation and institutionally organized wealthy families.

This does NOT include integrated pulp and paper companies who are increasingly important in emerging markets (e.g. IP in Russia; StoraEnso in China; APP in Indonesia; BILT in Malaysia). Although there are some similarities, there are more differences—importantly, the integrated firms desire low wood prices, where forestry investors prefer high ones.

- Such investments started in the US in the early 1980s and have grown to perhaps \$US 50 bn today on the basis of solid returns, low correlation with the returns from other assets, and strong diversification benefits.⁴
- These investments are concentrated in the US, NZ, Australia, Canada, Sweden and Finland, and in low-risk emerging markets countries (Uruguay, southern Brazil and Chile). They have mainly been driven by (a) the dis-integration of the forest products

³ See P.A. Cardellichio and C. S. Binkley. 2008. Long –run outlook for timber prices. IFIA Working Paper. www.ifiallc.com/research

⁴ See, C.S. Binkley, M. E. Aronow, C.L. Washburn. 2006. Timberland: the natural alternative. Ch. 10, pp. 231-246 in, B. J. Greer, ed. **Handbook of Inflation-Hedging Investments**. (McGraw Hill: New York). Available at <http://www.ifiallc.com/PDFs/NaturalAlternative.pdf>.

industry, and (b) privatizations of forest land in Australia and NZ. To date, institutional investors have financed virtually no greenfield plantation development but instead have acquired existing forestry assets.

- The participating investors are generally (but not always) interested in long-term sustainable forestry and have high social and environmental standards, but also want to make a reasonable risk-adjusted return on their investments.
- Returns have been falling in these conventional markets, from over 8% on a real, pre-fee, unlevered basis five years ago to around 4-5% currently. Spreads against benchmark 10-year US Treasuries have fallen by about 200 bps. As a result, investors are looking elsewhere to achieve better risk-adjusted returns.
- In response to this need, IFIA was founded in 2005 “to develop and implement innovative, socially responsible, high-return forestry investment strategies for sophisticated investors”. We focus on three key strategies: forestry technology; capital market arbitrage; emerging markets.
- Definition: “An emerging market is a market from which it is difficult to emerge in an emergency”—J. Leonard, President and CEO , Global Environment Fund

b. Global Emerging Markets Forestry Investors (“GEMFI”)

- A \$US 335 private-equity fund co-managed by Global Environment Fund and International Forestry Investment Advisors⁵

⁵ See www.ifiallc.com/PDFs/EmergingMarkets.pdf for a summary of the fund’s investment strategy

- The concept arose out of 2003 World Bank conference on timberland investment where John Spears, then the Senior Forestry Advisor for the Bank, had observed billions going into developed-country forestry and virtually none into emerging markets.⁶
- Although GEMFI emphasizes forests, there are some differences from conventional timberland investment funds: we require FSC certification; we include investments in associated manufacturing facilities; we focus on social concerns as well as environmental and economic ones.
- Current investments:
 1. 30 kha of pine and *E. grandis* + sawmill and co-gen facility in Swaziland
 2. 25 kha of *A. mangium* in Sabah + 180,000 BDT/yr chipmill
 3. 55 kha of *P. taeda*, *elliotti* and hybrids NE Argentina
 4. More deals in the pipeline with a general focus on Africa, Latin America, SE Asia and China. NOT Russia or E. Europe—the former is too risky; the latter offers few transactions of adequate scale.
- There are other funds in the space as well: International Woodlands Company (Denmark) with \$US 140mm fund; Indufor offshoot (Finland) with a €300 mm fund; GEMFI II in 2009

⁶ Report available at www.profor.info/pdf/InvestmentForumReportFinal.pdf

III. Some Questions Related to Forestry Investment in Emerging Markets

a. Just what does the investor own?

- Most forestry investments in developed world are “fee simple” ownership of land and trees. Investors have become comfortable with legal risks associated with this kind of asset.
- The situation differs markedly in emerging markets. Private forest land is not widespread. This situation may stem from the concept that forest resources—like minerals, coal, oil and gas—are a natural grant to the country that is held in trust for all people. Even in countries with strong traditions of public ownership (e.g. Russia) “productive” land—for residences, manufacturing facilities and agriculture—has been privatized while forest land remains in public ownership. Of course, forestry is increasingly more akin to agriculture than mining. As a consequence, these traditional land tenure systems are no longer consistent with the underlying economics of sustainable forestry.
- Land-tenure systems typically found in emerging-market countries make private investment more difficult:
 1. Where private land does exist, land titles are often cloudy (e.g. Brazil; Colombia).
 2. Concessions are prevalent, but only provide exposure to trees and not land—this provides less security and more risk. The legal basis for concessions generally is not well developed (Malaysia is an exception); annual fixed lease payments create implicit leverage in the transaction; profit-sharing arrangements can increase risk and alter the probability distribution of returns.

3. Foreign ownership may be restricted (e.g. natural forests in Indonesia; 30% Bumiputera requirement in Malaysia; security zone issues in Argentina and Brazil).
 4. Access to reasonable areas (> 5,000 ha) of land may be impossible due to custom, law or existing land use (e.g. India).
- Regardless, costly legal due-diligence is required to understand exactly what rights are being conveyed and what security an investor has.
- b. The quality of information typically is poor
- Project areas are poorly delimited—maps are poor or non-existent; little ground truth; encroachment/overlapping grants.
 - Seller’s inventory information typically is poor and cannot simply be audited; the need for field surveys increases risk and transactions costs; the common mismatch between seller’s expectations and ground truth creates distrust when “facts” are known.
 - Basic forestry information—species/provenance trials; growth and yield; silvicultural regimes—is poorly developed or lacking altogether. Once-good local university systems and technical institutions have suffered (e.g. Zimbabwe).
- c. The size of transactions is small
- Good news: asset value/ha is low which helps to produce reasonable risk-adjusted returns.
 - Bad news: amount of capital deployed in each investment is small (< \$US 50mm); due diligence and transactions costs are very high as a percentage of capital deployed. Investors end up spending a lot of money before they know that they will even get to

spend more money actually to plant or cut a tree.

Greenfield development of new plantations is especially difficult as only 1/3-1/2 the total capital required to bring the plantations to full rotation can be expended in the first three years—the typical investment period for a forestry fund. As a result, administrative costs are very high when expressed as a percentage of the capital deployed.

d. Investors need to own and operate processing facilities

- Many forest assets in emerging markets are “stranded”—isolated by poor transportation infrastructure and long distances to markets; technical quality of local manufacturing equipment may be poor; understanding of markets is frequently limited to low-valued local markets. All of these factors imply a necessity and desirability of investing in manufacturing.
- Concessions may explicitly or implicitly REQUIRE investment in manufacturing to increase employment (e.g. Russia).
- BUT...manufacturing risks are considerably higher than those for forestry—employment risk, financial risk, operational risk, market risk. Furthermore, most timberland investors have bought the idea that *dis-integration* is a good thing, so investing in manufacturing facilities requires re-education.

e. Critical social concerns require investor attention

- I have observed an unfortunate co-incidence of poverty and forests, not only in the developing world but also in places like the rural parts of the US South where I grew up.

- Local land-use rights may exist DESPITE legal title, gazettement, concessions, etc.
 - Local social problems—lack of sanitation, education, health care, etc—become investor problems. Solving these problems is complicated and adds expense and risk. But, they also provide the opportunity for additional returns via investments in human capital—education, training, health and nutrition programs.
- f. There are mis-matches between social desires and investor needs
- Investors need: large areas of unencumbered land close to ports/markets with good physical infrastructure and few institutional limitations on management decisions. They also want direct and substantial exposure to the risks and returns of growing trees.
 - Society needs: employment and assistance with social/physical infrastructure in poor, remote regions; desire long-term control over access to/ownership of land; wealth creation for local people.
 - The art of emerging markets forestry investing is to find ways private capital can profitably achieve society’s needs.
 - Some implications: out-grower schemes may work for integrated firms, but they are difficult for forestry investors. Leaseholds with small owners as in China can work but are a management nightmare.
- g. Carbon credits could be a valuable boost to investment in emerging markets, but are not
- Virtually all emerging market countries fall under CDM rules for carbon credits that could be traded in the high-value European Trading System. This could potentially be a major driver for increased investment in multi-purpose forests.

– BUT...the CDM process is EXTREMELY cumbersome; financial additionality rules stymie good projects. Let me take a moment to explain the problem:

“Financial additionality” means that you would not invest in the project “but for” the ability to sell carbon credits. There are two enormous problems with this criterion:

1. There is no unambiguous way to determine which single factor drives an investment decision. There are generally multiple, interacting sources of risk and return. It is a poor investment that depends on one alone.
2. The financial additionality criterion creates a “Catch 22”—there is currently no active market for forestry-based CDM credits. No sensible investor could honestly say that they are investing solely because of the ability to produce a product for which no market or price history exists. As a consequence, no investment in carbon-credit-based projects is possible under the financial additionality rules.

– The result of this situation is either no carbon credits from CDM forestry projects, or “strategic misrepresentation” about projects in order to make them qualify.

IV. Conclusions—what is an appropriate role for MCC?

a. Lots of private capital is ready to move into sustainable forestry investments in emerging market countries

– Some emerging market countries are already well capitalized from domestic sources— southern Brazil, Russia? China?

– Focus on those countries and regions where capital and know-how are scarce

- Try NOT to crowd out private capital unless there is a really good reason to do so
 - Some thoughts for MCC: Do initial project development to help reduce due diligence costs and risks for private investors? Co-invest?
- b. Attend to enabling conditions that support private investment (the true “public good” aspects of forestry)
- Because wood has a high weight-to-value ratio, transportation is a very large component of delivered cost (for example, even in Western Canada where the rail, highway and port systems are excellent, transportation comprises between 30% and 40% of cost of dimension lumber delivered to US markets.) As a consequence, investments in basic transportation infrastructure—roads, rail lines and ports—will increase the profitability of investments in more remote regions.
 - Help to establish reasonable concession laws where they don’t currently exist (e.g. Vietnam)
 - Assist in the development of basic forestry information—Torrens land registries with GIS boundaries; species and provenance trials; growth and yield studies for local species.
 - Partner on tree-improvement programs, propagation, nurseries and delivery of planting material? Provide guaranteed off-take agreements so private entities can obtain financing?
 - Provide assistance in technical education and training (perhaps in collaboration with investors)

c. Illegal logging remains a problem

- Presence of illegally sourced wood in the market place drives down prices and returns for honest, long-term capital. Invest in tracking and accountability systems?
- Corruption remains an impediment to investment.

d. Fix the CDM process for carbon credits

- Streamline the approval process—outsource to qualified verifiers?
- Eliminate financial additionality and focus on biophysical additionality, permanence and risk control.
- Work with developed countries (US, EU, Australia, Japan) to ensure sensible rules are established for forest-based carbon, including both afforestation and REDD projects.

This is especially important in the US over the next years or so. The US is likely to become the world's largest carbon market. The Lieberman-Warner Bill, S. 2191, allows for off-shore sourcing of carbon credits. We need to be sure that the definitions for those credits are sensible for forestry. Otherwise, the result will turn out just like it has with the CDM—no money, no investments, no new planting and no benefits for some of the poorest people on Earth.