

**Investment and Financing Mechanisms
in Commercial Forest Plantations ***
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A. Some History

- 1) After 10 years in the groves of academe, my first field job in early 1971 was as a forester in a firm establishing a commercial tree plantation, in the hinterlands of Agusan del Sur on Mindanao Island. It was a job that almost got me killed, just three weeks into my honeymoon. While visiting my planting crews about three kilometers from our forest camp, my security guards almost had a shoot-out with a group of *kaingin* (slash-and-burn) farmers (who, I learned later, were retired army soldiers from Luzon). I was politely asking them to leave the land within the company's forest license, so we could plant trees. Three leaders who met me, angrily refused, as guns of their members (discreetly hidden in the bushes) were pointed me and my guards who were standing ready with their fully loaded 45 caliber sub-machineguns. Moments before the triggers were pulled, I decided to pull to back off, but promised to send back my planters the next day. Back in the camp, I never mentioned the incident to my wife.
- 2) I tell this story to show some of the hazards of developing commercial forest plantations. Through the years since that near-shooting incident, the Government has exerted much effort to encourage tree plantations on a commercial scale. There are now in place programs that look after settlers (e.g. Community-Based Forest Management; Indigenous People's Rights Act). The program on Integrated Forest Management Agreements (IFMAs) with holders of long-term licenses extracting timber in the natural forest, was intended to encourage the licensees to develop industrial tree plantations within their areas of operation. But despite the fact that these programs have been on-going for many years now, there has hardly been any large-scale tree plantation now that can be considered as good model for sustained-yield forestry.
- 3) When the organizers of this forum invited me as a participant, I was so eager to attend, such that weeks before, I read up on my past writings about forest plantations. The review should enable me to interact more fruitfully with the other participants in the forum. But a few days ago, I got an urgent call from the organizers, former DENR Undersecretary Ricardo Umali and FMB Director Marlo Mendoza, asking me to prepare a paper on commercial plantations, as the planned speaker suddenly cancelled his commitment. I hesitated, but then accepted the opportunity to present my ideas to this distinguished audience. Then, I asked myself: What thoughts, old and new, can I marshal, that will be a concrete contribution to realizing the objectives of this Forum?

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- 4) I am well aware of the many accomplished speakers in this Forum who can provide the participants very keen insights into the complexities of investing in Philippine forestry. I have, therefore, decided that I will focus my effort on clarifying a few simple aspects of commercial plantation investments, that hopefully will not repeat what the other speakers have already said, or will say. The first part of this paper will briefly discuss opportunity and risks of commercial plantations with the aid of a sample cost and revenue table (Table 1). The second part will discuss ways to encourage more investment, mainly through the initiatives of the Government.

B. Opportunity and Risks

- 5) More than 30 years ago, in 1978., when the country was in the middle of a log export boom (we were exporting two million cubic meters of round wood per year, then), I wrote an article titled "Our Trees for Tomorrow." In that write-up, I predicted that in 10 to 15 years our country was going to run out of timber to export and to use in processing plants. Both loggers and foresters laughed loud at my prediction. I suggested that those who were making so much money on log export should re-invest in tree plantations. Few heeded my suggestion. Despite efforts of a few companies, log production went downhill. In less than 20 years, we were a net importer of round wood to feed our mills. We were also left with million hectares of denuded and eroded lands, on which hardly a Dipterocarp tree is standing.

- 6) The requirement that loggers should plant three trees for every mature Dipterocarp cut, was complied with by planting a few Ipil-ipil trees along roadsides. It was one of those silly rules that could not be enforced in the boondocks by foresters wearing immaculately white shoes.

In fairness, the Paper Industries Corporation of the Philippines(PICOP) and Nasipit Lumber Company (NALCO) had large nurseries and sizeable plantations of various fast-growing timber species. PICOP, then, was holding 25% (500,000 cm.m) of the entire log-export quota of the country, and could easily afford extensive planting of **Falcataria** (*Paraserianthes falcataria*) and **Bagras** (*Eucalyptus deglupta*). NALCO has much earlier pioneered in tree plantations, notably **Lumbang** (*Aleurites moluccana*) for use in its **Lawanit** board plant.

- 7) Recently, in June, 2009, I wrote another article entitled "The Age of Wood Will be Back", which is due to come out this month in the Asian Institute of Managements's Leadership Magazine. This magazine is published and distributed by AIM's Alumni Association office to more than 38,000 alumni throughout Asia and elsewhere. In this article, I elaborated on the opportunities and risks in investing in forest plantations. I also argued that, as the current energy and building material sources (namely: fossil fuel and iron ore) dwindle and become more costly, as we approach 2050, I boldly claim that we will all be looking back at wood as a complementary, or even substitute, material. And the wood will have to come from well-managed plantation forests. I have, therefore, invited entrepreneurs to take a hard look at the opportunities (as well as pitfalls) in investing in tree plantations. Tropical plantations, I argued, offer the best prospect to have on-going and viable forest-based enterprises.

- 8) If, after reading my article, some investors (individual or institutional) see some merit to what I claim, the next question in their minds would be: How do I go about getting into a forest plantation venture? I suggest the following steps:

- (1) Study carefully the pre-feasibility figures, countercheck with other specialists, and convince yourself (or your respective board) that the investment could indeed be profitable.
- (2) Identify the organization in control of the land on which the plantation could be established and provide funds for a full-scale feasibility study.

- (3) Implement the investment program according to the findings and recommendations of the feasibility study.

Understanding the pre-feasibility figures, is the key that can open the eyes of investors to opportunities in commercial forest plantations. The figures are not only assumptions, but are mostly based on actual collective experiences of foresters who have been involved in plantation development.

C. FAQs (Frequently Asked Questions) on Forest Plantation Investment

1. Where is the market for plantation timber?

Locally, the country has been a net importer of round wood and other wood products. In the last five years, imported wood was valued at more than \$100 million per year.

Export market: The Food and Agriculture Organization (FAO/UN) has predicted that three major round wood-consuming Asian countries (PR China, Japan, S. Korea) will need 69,865,400 cubic meters in year 2010. Let us consider the following table:

Round Wood Imports of Three Countries

	2010 Predicted Consumption (cu.m.)	Round Wood Imports (as % of consumption)	Round Wood Imports (cu.m.)
PR China	193,587,000	5.6%	10,840,872
Japan	82,724,000	63.7%	52,695,188
S. Korea	7,814,000	81%	6,0329,34
		Total Imports:	69,865,400

A more intensive study of demand, for at least the next 10 years, both local and export, should be conducted to have a much better idea of future wood demand. The result of the study should then be the basis for planning the magnitude of investment in plantations. It will be noted in the above table, however, that meeting even only 10% (about 7M cu.m.) of the predicted import demand of these three countries will mean a substantial foreign exchange revenue.

2. How do we mitigate the risks in a project that has a long-gestation period (say, 8-10 years)?

a. Unstable Government policies

Answer: In partnership with People's Organizations (long-term lease holders) and land-owning indigenous tribal groups, investors could prove to Government that viable forest-based enterprises can be realized through their partnership. Therefore, stable policies are needed to help these enterprises flourish and, thus, contribute to the national economy.

b. Risk of high wind, pest, disease, and fire.

Answer: For good forest managers, there are obvious measure on the ground that could mitigate the impact of these hazards. Investors could also consider insurance against such risks. The Lloyds of London has insured the hands of a piano virtuoso,

the beautiful legs of a prima ballerina, and the virginity of young Hollywood stars. We should also be able to insure growing trees of a well-managed forest plantation.

c. **Risk of slow growth of trees and, hence, the danger of not achieving target volume growth.**

Answer: There are two recent advances in Philippine forestry that increases much the possibility of meeting the target volume growth. These are:

- (1) A software on site-species matching developed by UPLB-based researchers, which greatly reduces the mismatch between tree species to be raised and soil and climatic characteristics of planting sites; and
- (2) Macrosomatic cloning technology, which ensures high-quality planting stock with very good potentials for fast growth and good tree form. Trial plantings of the last 15 years have shown good growth and form of some plantation timber species.

D. Funds for Commercial Forest Plantations

- 1) From the background paper for this Forum, there was a lengthy section on financing forest-based projects. Through those decades, as the natural forest were being decimated by loggers and land-hungry settlers, the Government made valiant efforts to use massive amounts of funds, mainly from multilateral and bilateral donors, to implement sustainable forestry programs. Even with such funds, the country's timber supply for its wood-based industries continued to drastically dwindled.
- 2) The \$25 million project loan in 1991 from a multilateral funding institution was intended to jump-start commercial tree plantations. This amount would have resulted in wood volumes that could sustain the processing industries, with minimal imports. Unfortunately, implementation of the project was left mainly to the Land Bank of the Philippines (LBP), which had no experience at all overseeing such a project. Four of the five participating firms were able to establish plantations. But they have failed in becoming good models of viable, sustained-yield forest ventures.
- 3) This is the third Forum (two others happened in Years 2000 and 2005) where a battery of international specialists are assisting the country in bringing about concrete ideas on how we may regain our forest wealth. Very little, if at all, of these bright ideas that were discussed and developed in the two Fora ever get translated into effective programs. Up to now, the country is saddled with extensive, largely under-utilized land, and continues to drain its meager, precious foreign exchange resources through wood imports. In between the two previous Fora, we have faced the mirror and asked: **What has gone wrong ? Where did we fail?**
- 4) I believe that the key question that this Forum still seeks to answer is: **With the good prospect of profits in commercial tree plantations, why are private investors not elbowing each other to put their money in such ventures?** The background document may have fully answered this question. There are unstable forest-use policies, over-regulation of forest-based industries (e.g Chainsaw Law, Environmental Compliance Certificate for a reforestation/commercial tree plantation project, etc...). But after the question is satisfactorily answered, and the problems are properly brought to the limelight, what is next?

- 5) In a free enterprise system, the private corporation is the main legal business organization which ensures continuity of operation beyond the lives of individual owners. In a corporate set-up, when fund resources are pooled to engage in a business venture, appropriate control measures on uses of funds are built-in, and well-thought decisions normally emanate from a 5/7/11-member-board of learned and experienced individuals. Conventional wisdom dictates, therefore, that any scheme intended to generate financing for commercial plantation projects, could/should be formulated within a corporate entity.

- 6) Initial fund sources are the paid-up capital of incorporators and subscription of other stockholders. The capital base could be expanded by registering at the stock exchange and selling equity thru an initial public offer (IPO). Of course, a requisite to an IPO is that some plantation work is already being carried out on the ground. A well-intentioned Government can provide an impetus towards a rapid expansion of corporate investment in commercial tree plantations. I can think of seven initiatives which a supportive Government can take, to encourage more investors to put money in tree plantations. These initiatives are as follows:
 - a) an official directive (either from the Central Bank or Department of Finance) for commercial banks to recognize and evaluate land given under long-term lease or awarded to indigenous cultural minorities, as collateral for loans to tree plantations projects;
 - b) a similar directive for banks to accept growing trees (properly evaluated) also as collateral for loans;
 - c) grant of tax holiday for at least 8-10 years to investment in commercial plantations;
 - d) grant of tax exemptions to import of equipment and machineries to be used in plantations;
 - e) require insurance cover at a reasonable premium for planted trees;
 - f) allow the declaration of stock dividends based on the estimated growth in volume and value of trees in plantations;
 - g) establish a system of monitoring and certification of coppice re-growth in the plantations for the purpose of imposing on the plantations substantially reduced taxes.

- 7) Initiatives (a) and (b), are meant to enable more funds available to the investors when they seek loans from lending institutions for the plantations. The tax holiday, (c), and exemption, (d), will serve as effective incentives to encourage more investments. The requirement for insurance cover for trees, (e), will stimulate the insurance business and provide further security to the investment. Regarding Initiatives (f), foresters will have to develop an evaluation system for growing stock of trees to enable a generally accepted value on which annual dividends can be credited to stockholders on record. As regard Initiative (g), growth rates of coppice re-growth of given timber species will be established. Estimate of timber volume at maturity and harvest, will be the basis of the reasonable tax rate on revenue.

- 8) I realize that this brief paper, which attempts to highlight opportunities and risks of commercial plantation investments and initiatives that could help jump-start such investments, may not contribute much to the Forum's objectives. Indeed, my treatment and discussions of such important topics seems superficial and lacking in depth. I sincerely believe, though, that through these years that good ideas about commercial plantations, were presented in numerous meetings, we have come to a stage when actual meaningful plantation

work must happen on the ground. This is why I have earlier proposed that ITTO fund demonstration plots of 50 hectares to 500 hectares in selected sites in the country. Let us make the successful demo plots do the talking to prospective big investors.

- 9) I am thankful to the organizers of this Forum for giving me an opportunity to expound on my views on how investors could be galvanized into directing their fund resources into commercial tree plantations. The major factor of production is land, which is under the jurisdiction of Government. Without much delay, therefore, it should do the preparatory work. The two initial steps are (1) selection of sites for plantations within the CBFMAs, CADCs, IFMAs, etc... , and (2) comprehensive compilation of field data on selected sites and preparation of a brochure to inform prospective investors of available areas for commercial plantation development. The brochure, on each site, should be the starting point for interested investors to conduct a full-scale feasibility study on the plantation project. Only a lethargic and incompetent Government will neglect or overlook these simple, but necessary, initial steps to start the investment train rolling. I would like to think that our's is not !