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WACANA STIE-GANDHI

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PENGGUNAAN "TRAVEL COST METHODS" UNTUK MEMPREDIKSI PERMINTAAN LOKASI REKREASI : Suatu Pendekatan Metodologis

John E. H. J. FoEh¹

ABSTRACT

There are two main problems regarding recreation locations especially outdoor recreation. In one side, until now, the rate of visit of the population to to the tourism objects is still very low which raises an assumption that recreation location doesn't create any opportunity in regional and domestic economy. In other side, undervalue of recreation services based on the willingness to pay cause a very low attractiveness of investment in tourism objects.

To solve these problems, one should be able to estimate or predict the number of the demand of recreation location so that a good planning and development could be implemented in this area. One of the very common methods to calculate this demand is to use the travel cost methods. Many independent variable could be implemented in a multiple linear regression model, depends on the objective of the research. Somehow, a valid data is necessary in the application of statistical and quantitative analysis. Experiences showed a significant result of analysis using this travel cost methods.

Keywords : permintaan lokasi rekreasi, ekonomi, travel cost methods

I. PENDAHULUAN

Pada dasarnya, pengembangan suatu lokasi atau obyek wisata di suatu daerah akan sangat bergantung pada sejauhmana obyek tersebut dapat memberikan kontribusi secara ekonomis, misalnya bagi peningkatan pendapatan asli daerah (PAD). Penekanan pada aspek ekonomi ini tidak berarti tanpa memperdulikan aspek-aspek penting dari lingkungan (environment) yang bersifat *intangibile* dan tak ternilai dengan uang, namun sangat bermanfaat bagi hidup dan kehidupan umat manusia. Di samping ciri khas atau keunikan dari suatu obyek wisata, maka pengembangan dan pengelolaannya akan sangat bergantung pada tingkat permintaan konsumen. Estimasi terhadap permintaan ini dapat didekati dengan berbagai macam metoda kuantitatif maupun kualitatif namun seringkali memberikan hasil yang masih belum memuaskan bagi berbagai pihak tergantung dari sisi mana mereka memandang hasil analisis dimaksud.

Salah satu metoda yang sudah teruji dan dapat dipergunakan untuk menduga tingkat permintaan rekreasi per satuan waktu dengan memperhatikan zonasi konsumen adalah *travel cost methods*. Metoda ini cukup sederhana dengan menggunakan analisis regresi linier berganda yang variable-variabel bebasnya dapat dipilih sesuai dengan kebutuhan analisis. Berikut ini disajikan suatu pendekatan

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teoritis metodologis dalam mengukur atau mengestimasi tingkat permintaan terhadap suatu obyek wisata.

Penggunaan metoda ini sangat penting mengingat masih rendahnya tingkat kunjungan masyarakat ke obyek rekreasi sehingga manfaat jasa rekreasi sering dianggap tidak menghasilkan uang, keuntungan dan lapangan pekerjaan. Di samping itu, rendahnya penilaian ekonomi secara kuantitatif dari manfaat jasa rekreasi berdasarkan kesediaan membayar (*willingness to pay*) mengakibatkan rendahnya investasipada pembangunan obyek-obyek rekreasi.

II. PERMINTAAN SUMBERDAYA LOKASI UNTUK REKREASI

Pada hakekatnya terdapat banyak pilihan rekreasi ke luar rumah (*outdoor recreation*), di mana setiap orang bisa memilih sumberdaya dimaksud, sesuai dengan seleranya. Masing-masing sumberdaya rekreasi menjadi pilihan khusus bagi setiap pengunjung, sehingga jenis permintaan terhadap sumberdaya ini akan bersifat khusus. Hal ini dapat terjadi karena setiap obyek rekreasi memiliki karakteristik yang berbeda dengan obyek-obyek rekreasi lainnya. Karakteristik obyek rekreasi tersebut menyebabkan permintaan terhadap obyek rekreasi dihadapkan dengan berbagai pilihan. Hal ini sejalan dengan pendapat Howe² yang mengatakan bahwa permintaan khusus diartikan sebagai suatu kesediaan membayar (*willingness to pay*) untuk pemeliharaan suatu daerah atau lokasi yang tidak tentu penggunaannya.

Pendapat tersebut diperkuat oleh Sukanto Reksohadiprodjo dan Andreas Budi Purnomo³ yang mengatakan bahwa permintaan yang bersifat khusus itu ditujukan kepada lingkungan yang unik, ada atau tidak ada substitusinya. Dari segi ekonomi, permintaan atau pilihan khusus terhadap lokasi yang mendatangkan kesenangan (*option demand*) itu, pada hakekatnya tak akan ada substitusinya, sehingga perlu dilestarikan. Dengan demikian, diperlukan suatu usaha pengelolaan tertentu agar supaya kapasitas atau daya dukung lokasi tidak terlampaui. Spillane⁴ memberikan pengertian rekreasi sebagai jenis aktivitas dari pariwisata yang dilakukan oleh orang-orang yang menghendaki manfaat dari hari-hari liburanya untuk beristirahat, dan/atau memulihkan kembali kesegaran jasmani serta rohani lewat upaya untuk mengurangi serta melenyapkan keletihan dan kelelahan fisik dan psikis yang dialaminya.

Sejalan dengan pendapat di atas, Otto Sumarwoto⁵ mengatakan bahwa rekreasi tidak hanya berarti bersenang-senang melainkan harus diartikan sebagai rekreasi, yaitu secara harfiah berarti diciptakan kembali. Jadi dengan rekreasi itu orang ingin menciptakan kembali atau memulihkan kekuatan dirinya, baik fisik maupun spiritual. Setelah rekreasi, biasanya orang akan merasa dirinya pulih, segar dan siap untuk

² Howe Charles W., 2002. *Natural Resources Economics; Issues, Analysis and Policy*. John Wiley & Sons, New York.

³ Sukanto Reksohadiprodjo dan Andreas Budi Purnomo. 1998. *Ekonomi Lingkungan Suatu Pengantar*, PBF-UGM, Yogyakarta.

⁴ Spillane, James, H. 1998. *Ekonomi Pariwisata, Sejarah dan Prospeknya*. Penerbit Kanisius, Yogyakarta

⁵ Otto Soemarwoto, 1999. *Ekologi Lingkungan Hidup dan Pembangunan*. Djambatan, Bandung.

melakukan tugasnya kembali. Oleh karenanya, permintaan sumberdaya rekreasi dapat dikatakan sebagai permintaan perihal jasa sumberdaya lingkungan yang khusus untuk sarana menghilangkan keletihan atau memulihkan kesegaran jasmani dan rohani.

Permintaan terhadap obyek lokasi rekreasi sangat dipengaruhi oleh tingkat pendapatan seseorang atau masyarakat. Makin tinggi pendapatan seseorang makin besar permintaan terhadap barang rekreasi. Hasil penelitian Dudung Darusman⁶, mengemukakan bahwa jumlah kunjungan rekreasi masyarakat ke obyek wisata dipengaruhi oleh biaya perjalanan yang terdiri dari biaya transportasi, akomodasi, dan biaya karcis masuk atau pungutan lainnya. Makin besar biaya perjalanan makin rendah kunjungan rekreasi dari masyarakat tersebut. Dengan demikian dapat dikatakan bahwa tingkat pendapatan per kapita regional sangat berpengaruh terhadap jumlah kunjungan ke obyek wisata. Makin besar pendapatan per kapita suatu daerah makin besar jumlah kunjungan per 1.000 penduduknya. Berdasar atas analisis permintaan diperoleh bahwa biaya karcis optimum masih di atas harga yang ada atau yang biasanya diterapkan di lokasi-lokasi wisata.

Gregory⁷ mengatakan bahwa rekreasi dipengaruhi oleh faktor-faktor yang meliputi populasi, pendapatan, waktu luang dan kesempatan untuk memilih tempat rekreasi. Hal ini sedikit berbeda dengan pendapat Culpon⁸ yang menyatakan bahwa permintaan rekreasi dipengaruhi oleh faktor-faktor kenaikan pendapatan disposibel, daya tarik khusus, waktu luang, peningkatan mobilitas, tingginya tingkat pendapatan, kedekatan budaya dan fisik lokasi rekreasi, atraksi rekreasi, pengaruh promosi, tingkat mata uang yang baik dan stabilitas keamanan negara. Faktor-faktor lain yang berkaitan dengan permintaan adalah akomodasi (tempat istirahat seperti hotel, losmen, motel dan penginapan), dan hal-hal lain seperti makanan, minuman, pakaian, souvenir, pelayanan yang baik, prasarana dan sarana transportasi. Dapat dikatakan bahwa hampir semua rekreasi terbuka merupakan *packet deal* yaitu yang meliputi antisipasi rekreasi, perjalanan ke lokasi rekreasi, perjalanan pulang dan terakhir merupakan kesan dan kenangan dari suatu perjalanan rekreasi.

⁶ Dudung Darusman. 2001. Studi Alternatif Pemanfaatan Sumberdaya Hutan Dalam Bentuk Usaha Wisata (Kasus Areal Cibodas, Jawa Barat). Media Persaki, Edisi III/3MP-7 hal. 23-28. Bogor

⁷ Gregory R.G., 1994. Forest Resource Economics. John Wiley & Sons, New York.

⁸ Culpon, Refik. 1999. International Tourism Model for Developing Economics. Pergamin Journal Inc and Jalast, Harrisburg, USA.

III. PENILAIAN LOKASI REKREASI

Suatu tempat atau lokasi rekreasi dapat dinilai secara ekonomi karena adanya biaya-biaya yang dikeluarkan dimana pada kenyataannya, biaya-biaya yang dikeluarkan jauh lebih besar untuk kunjungan wisata dari pada harga karcis masuk. Selanjutnya, biaya dimaksud (harga karcis masuk) tidaklah mencerminkan keseluruhan biaya yang dikorbankan untuk memperoleh suatu paket kenangan dari hasil kunjungan di obyek lokasi tersebut. Cara penilaian obyek rekreasi dengan biaya perjalanan (travel cost methods) lebih umum digunakan karena secara ekonomi, bisa mengukur tingkat permintaan terhadap lokasi atau obyek rekreasi. Salah satu cara yang bisa digunakan adalah dengan menduga kurva permintaan konsumen pemakai jasa rekreasi dengan mengukur kesediaan membayar konsumen pada obyek rekreasi. Seneca dan Tousig⁹ mengatakan bahwa pendekatan kesediaan membayar untuk menentukan permintaan barang-barang publik secara nyata, didasarkan pada persamaan untuk menentukan permintaan pasar. Mengukur pengaruh permintaan suatu nilai barang dengan sejumlah pendapatan individu adalah kesenangan dan kesediaan untuk memberikan andil terhadap nilai barang tersebut.

Pendekatan biaya perjalanan juga dikemukakan oleh Dixon dan Hufschmidt¹⁰ yang mengatakan bahwa modal dasar yang dipakai pendekatan ini menggambarkan derajat kunjungan tiap 1000 penduduk sebagai fungsi dari faktor-faktor seperti biaya perjalanan, waktu yang diperlukan untuk perjalanan, tempat persinggahan dan pendapatan rata-rata. Pendapat tersebut dioperasikan oleh Dudung Darusman¹¹, yang selanjutnya menyatakan bahwa pendugaan nilai manfaat rekreasi dilakukan dengan menggunakan biaya perjalanan, yang pada dasarnya adalah pendugaan permintaan yang didasarkan pada kesediaan membayar para pengunjung dengan bentuk persamaan sebagai berikut :

$$V = a + b_1C + b_2I$$

V = Permintaan rekreasi atau jumlah kunjungan per 1000 penduduk.

C = Biaya perjalanan rata-rata dari tiap zonasi.

I = Pendapatan per kapita.

Untuk menduga nilai manfaat rekreasi, digunakan perluasan biaya perjalanan dengan menggunakan simulasi harga karcis, sehingga diperoleh kurva permintaan rekreasi tahunan untuk seluruh zonasi.

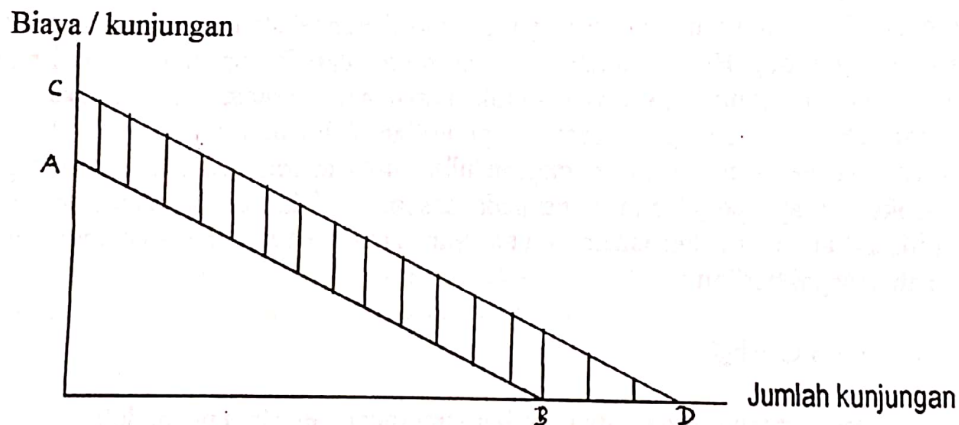
⁹ Seneca, Joseph. J. and Michael K. Tousig, 1998. Environmental Economics, Prentice Hall, Inc, London

¹⁰ Dixon, John and Maynard M. Hufschmidt, 1999. Teknik Penilaian Ekonomi Terhadap Lingkungan: Suatu Buku Kerja Studi Kasus. Peterjemah Sukanto Reksohadiprojo. Gadjah Mada University Press, Yogyakarta.

¹¹ Dudung Darusman, 2001. Op. Cit.

IV. METODA BIAYA PERJALANAN (TRAVEL COST METHODS)

Pearce dan Amil¹² menyatakan bahwa biaya perjalanan berkaitan dengan luasnya penggunaan untuk mengestimasi manfaat terhadap perubahan fasilitas lingkungan rekreasi, seperti taman, danau dan lain-lain. Metoda ini menegaskan penilaian jumlah uang dan waktu yang dimanfaatkan di tempat rekreasi untuk meramalkan kesediaan membayar pada fasilitas tempat rekreasi. Biaya sesungguhnya dari suatu kunjungan di dasarkan pada harga karcis ditambah biaya suatu nilai moneter ditambah lagi pendapatan yang hilang untuk memperoleh manfaat rekreasi. Selanjutnya dikatakan bahwa kurva permintaan untuk menghitung manfaat tempat rekreasi memperlihatkan konsep surplus konsumen ada di dalamnya. Turunan kurva permintaan (*marginal demand*) merupakan kategori penting untuk mendefinisikan karakteristik keluarga dari konsumen rekreasi seperti pendapatan, tingkat pendidikan, status sosial dan lain-lain yang dikaitkan dengan fasilitas rekreasi. Kurva permintaan dapat bergeser jika fasilitas rekreasi diperbaiki. Manfaat perbaikan tempat rekreasi kurva permintaan seperti pada Gambar 1.



Gambar 1. Kurva permintaan manfaat perbaikan fasilitas rekreasi.

Garis AB adalah kurva permintaan sebelum perbaikan dan CD adalah kurva permintaan sesudah perbaikan fasilitas rekreasi. Manfaat kelompok konsumen adalah daerah ABCD. Kurva permintaan digunakan untuk meramalkan biaya per kunjungan keluarga pada tempat rekreasi. Perbedaan tingkat kunjungan keluarga pada daerah yang berbeda ditentukan oleh pendapatan, jarak tempat tinggal dan karakteristik lain seperti biaya dan waktu perjalanan, data rumah tangga, data fasilitas rekreasi, dan tempat khusus dalam kaitannya dengan estimasi permintaan. Kesimpulan bahwa biaya perjalanan digunakan sebagai alat penilaian manfaat rekreasi yaitu pada jarak tempat tinggal konsumen terhadap lokasi rekreasi. Data seperti ini cukup memadai dan mudah dijangkau oleh peneliti.

¹² Pearce, David W. and Markandya Amil, 1998. Environmental Policy Benefits; Monetary Valuation, Paris Cedex 16 France

Berdasarkan pada teori-teori yang dikutip maka dapat dikemukakan suatu model regresi linier berganda untuk mengukur tingkat kunjungan atau tingkat permintaan terhadap suatu lokasi rekreasi serta faktor-faktor yang mempengaruhinya. Model dimaksud adalah sebagai berikut :

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + \dots + b_7X_7 + \epsilon$$

Y = Tingkat kunjungan ke obyek rekreasi per tahun

X₁ = Biaya transportasi

X₂ = Biaya akomodasi

X₃ = Jarak lokasi dengan tempat tinggal

X₄ = Pengeluaran untuk souvenir dan lain-lain

X₅ = Kelengkapan sarana dan fasilitas pendukung

X₆ = Pelayanan yang diberikan

X₇ = Pendapatan konsumen

b₀ = Intercept

b₁ - b₇ = Koefisien-koefisien Regresi

ε = errors (kesalahan pengganggu)

Selain 7 variabel bebas yang digunakan di dalam model di atas, masih dapat ditambahkan atau diteliti secara terpisah, pengaruh faktor-faktor pendidikan, jumlah tanggungan keluarga, latar belakang sosial, usia responden, jenis pekerjaan atau profesi dan masih banyak lagi variabel bebas lainnya yang bersifat makro seperti kondisi perekonomian nasional, situasi keamanan, gangguan kriminal, kondisi infrastruktur, aksesibilitas dan lainnya. Metoda pengukuran variabel-variabel dimaksud dapat berupa data numeric maupun kategorik. Data kategorik sebaiknya hanya menggunakan skala interval dan ratio. Jika harus menggunakan skala lain seperti nominal dan ordinal sebaiknya menggunakan metoda non parametric..

Kembali kepada contoh model regresi yang digunakan di atas maka analisis regresi linier berganda yang digunakan adalah untuk menguji apakah terdapat pengaruh variabel-variabel yang digunakan terhadap tingkat kunjungan ke lokasi rekreasi atau lokasi wisata tertentu. Tingkat kunjungan (Y) adalah banyaknya seseorang melakukan kunjungan atau kehadiran di obyek rekreasi.

Biaya transportasi (X_1) adalah jumlah uang / biaya yang dikeluarkan pengunjung untuk dapat tiba di lokasi rekreasi baik menggunakan kendaraan pribadi maupun kendaraan umum yang dinyatakan dalam rupiah (nilai uang) per tahun (Rp/Tahun).

Biaya akomodasi (X_2) adalah jumlah uang / biaya yang dikeluarkan pengunjung untuk menginap atau beristirahat selama berada di lokasi rekreasi baik secara individu maupun dengan kelompok / keluarga yang dinyatakan dalam rupiah (nilai uang) per tahun (Rp/Tahun).

Jarak lokasi rekreasi dengan tempat tinggal responden (X_3) dinyatakan dalam kilometer. Bila terdapat variasi yang nyata dalam jarak maka data jarak dimaksud dapat dibagi dalam kategori-kategori sangat jauh sampai sangat dekat dengan mempergunakan skala Likert.

Pengeluaran untuk souvenir / cendramata dan lain-lain (X_4) dinyatakan dalam rupiah per tahun. Biaya dimaksud dapat saja nol jika konsumen tidak pernah membelanjakan uangnya untuk maksud tersebut. Biaya foto dan pencetakannya dapat dimasukkan dalam kategori variabel ini.

Kelengkapan sarana dan fasilitas pendukung (X_5) mengacu pada standar kebutuhan minimal yang harus ada di suatu lokasi rekreasi, seperti toilet, tempat bernaung, kamar ganti, tempat parkir, restoran, air bersih, dsb. Berdasarkan ketersediaan fasilitas yang ada termasuk berfungsi tidaknya maka dapat dibuatkan nilai bobot bagi setiap parameter yang diukur. Nilai total bobot yang diperoleh kemudian dikategorikan dalam skala Likert.

Demikian halnya dengan pelayanan yang diterima (X_6) oleh konsumen di lokasi wisata atau obyek rekreasi. Perbedaan antara harapan konsumen dengan kenyataan yang diterimanya akan merupakan nilai bobot dari kepuasan yang dialami seseorang pengunjung ke lokasi rekreasi. Pengolahan data selanjutnya adalah dengan menggunakan skala Likert untuk menyatakan sangat baik sampai sangat tidak baik bagi ukuran pelayanan.

Pendapatan konsumen (X_7) dapat diukur secara langsung dari pendapatan harian dan/atau bulanan yang kemudian dikonversikan ke dalam Rp/Tahun. Perlu ditambahkan bahwa peniti harus cukup lihai untuk mendapatkan informasi mengenai pendapatan seseorang. Biasanya agak sulit memperoleh jawaban yang valid apalagi kalau identitas responden diketahui. Ada berbagai pendekatan untuk mengukur

pendapatan tetap konsumen yang juga bisa didekati dari pengeluaran per satuan waktu. Pendapatan juga akan memberikan gambaran tentang kesediaan membayar dari konsumen terhadap tariff atau harga karcis yang harus dikeluarkan oleh mereka.

Dengan demikian suatu obyek rekreasi harus memiliki daya tarik dan keunikan tersendiri, sedemikian sehingga kesediaan untuk membayar dari konsumen juga dapat meningkat secara positif. Sesungguhnya, setelah dapat diukur variable-variabel bebas dimaksud dalam model di atas maka model dimaksud dapat disederhanakan dengan mengikuti metoda biaya perjalanan (travel cost methods) sebagai berikut :

$$V = b_0 + b_1C + b_2I$$

V = permintaan rekreasi/jumlah kunjungan per 1000 penduduk

C = Biaya perjalanan rata-rata per daerah pengunjung (Rp/kunjungan)

I = Pendapatan per kapita

b_0 = Intercept

b_1 dan b_2 adalah koefisien-koefisien regresi

Dari model di atas dapat diukur permintaan rekreasi per 1000 penduduk. Persoalan berikutnya adalah menetapkan daerah asal para pengunjung yang dapat dibuat dalam zona-zona, tergantung pada tujuan pengelolaan suatu obyek wisata. Biaya perjalanan adalah biaya yang dikeluarkan oleh pengunjung untuk kegiatan rekreasi. Biaya perjalanan meliputi biaya konsumsi ditambah biaya transportasi, biaya dokumentasi dan biaya-biaya lain yang dikeluarkan pengunjung untuk satu hari. Biaya perjalanan pengunjung dikelompokkan menurut zona masing-masing, dan dihitung untuk setiap satu orang dalam satu hari. Jadi biaya perjalanan yang dimaksud adalah biaya perjalanan untuk setiap orang dalam satu hari kunjungan yang selanjutnya dapat dikonversi ke tahun atau bulan sesuai dengan operasionalisasi penelitian.

Perhitungannya adalah sebagai berikut :

$$BPR = TR + D + KR + BL + P + WR$$

BPR = Biaya perjalanan rata-rata (Rp/orang/hari)

TR = Biaya transportasi (Rp/orang)

KR = Biaya konsumsi selama rekreasi (Rp/orang/hari)

D = Biaya dokumentasi (Rp)

P = Ongkos parker, dll

BL = Biaya lain-lain rata-rata selama rekreasi

WR = Biaya dari waktu dalam moneter yang dikorbankan untuk rekreasi

Untuk menghitung biaya dari waktu yang dikorbankan untuk rekreasi dimulai dari anggapan bahwa waktu yang dikorbankan yaitu satu hari. Membagi pendapatan per tahun ke hari kerja maka diperoleh pendapatan sehari. Pendapatan sehari tersebut merupakan nilai waktu. Dalam perhitungan di sini, nilai waktu adalah seperempat dari pendapatan sehari jika pengunjung bekerja. Dasar perhitungan tersebut didasarkan hasil penelitian Cesario (1976) dalam Sukanto Reksohadiprodjo dan Andreas Budi

Purnomo (1998)¹³ yang meninjau ulang sejumlah studi tentang waktu perjalanan dan biaya angkutan dalam usahanya menentukan harga bayangan bagi waktu. Kesimpulannya ialah bahwa nilai waktu berkaitan dengan perjalanan tidak untuk kerja adalah antara seperempat sampai setengah tingkat upah.

Data biaya perjalanan yang diperoleh dari kuesioner diklasifikasikan dari tiap-tiap zona yang digunakan untuk menentukan biaya perjalanan rata-rata dari tiap zona asal pengunjung dengan menggunakan rumus :

$$TC_1 = \frac{C_1}{N_1}$$

Dimana :

TC_1 = Biaya perjalanan rata-rata dari tiap zone (Rp/orang/kunjungan)

C_1 = Jumlah total biaya perjalanan pada zone (Rp)

N_1 = Jumlah total pengunjung pada zone (orang/tahun).

Data yang diperlukan untuk menduga kurva permintaan rekreasi adalah sebagai berikut :

- Daerah asal pengunjung
- Jumlah penduduk daerah asal pengunjung
- Pendapatan per kapita pengunjung tiap zone
- Biaya perjalanan rata-rata dari tiap zone
- Jumlah kunjungan per 1000 penduduk tiap zone.

Untuk menguji pengaruh variable bebas terhadap variable tidak bebas secara simultan (global) digunakan kriteria uji F sedangkan uji parsial atau pengaruh individu digunakan uji t student. Kriteria pengambilan keputusan akan mengikuti metoda analisis data dalam Metoda Statistika.

V. PENUTUP

Pada dasarnya, metoda biaya perjalanan (travel cost methods) dapat digunakan untuk mengukur tingkat permintaan terhadap suatu obyek rekreasi atau obyek wisata. Jika tingkat permintaan dapat diketahui maka pada gilirannya akan dapat dibuat suatu perencanaan yang matang mengenai rencana pengembangan obyek wisata yang dikaitkan dengan pendapatan daerah, penerimaan negara dan daerah dari pajak, iuran, dsb. Di samping itu, dapat pula diukur peluang penciptaan lapangan kerja baru, penyerapan tenaga kerja termasuk *multiplier effects* yang ditimbulkan dari adanya permintaan terhadap lokasi rekreasi.

Secanggih apapun model atau metoda analisis yang digunakan maka tingkat validitasnya akan sangat ditentukan oleh validitas data dan instrument penelitian yang dipergunakan, termasuk di dalamnya adalah kesahihan dan ketelitian dari kerja seorang peneliti. Banyak studi terutama yang berkaitan dengan *outdoor recreation*

¹³ Sukanto Reksohadiprodjo dan Andreas Budi Purnomo, 1998. *Ekonomi Lingkungan; Suatu Pengantar*. BPFE-UGM, Yogyakarta.

seperti hutan wisata, taman nasional, cagar alam, suaka margasatwa maupun wisata bahari membuktikan bahwa metoda biaya perjalanan cukup handal untuk dipergunakan dalam mengestimasi tingkat permintaan pada suatu lokasi rekreasi.

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IMPLEMENTATION OF FOREST MANAGEMENT MODEL (KPHP) IN BERAU, EAST KALIMANTAN

John E.H.J. FoEh¹

ABSTRACTS

Berau Forest Management Project through PT. Inhutani I in East Kalimantan run an implementation of a sustainable forest management model based on the experiences in developed and other tropical countries. This project was under the cooperation between Indonesian Forestry Department and European Union. This management model is aiming at the development of a business based on the sustainable harvesting of forest products from one forest site (KPHP). Expected impacts should be the growth of local people welfare, regional economic development, absorption of manpower and the growth of regional income.

This project started with a rough study about the dependency of the local people to the forest products for their income and also the marketing mechanism of those forest products both locally and trans regional. All of the forestry activities in this site will include the participation of local people as responsible for certain activities. After 5 years of the concept implementation, it seems that the results and impacts are still under expectation.

Keywords; forest management model, local people participation, KPHP (Kesatuan Pemangkuan Hutan Produksi), marketing of wood and non timber forest products.

I. INTRODUCTION

In general, forest management in Indonesia involves three parties, namely the government (central and local), business people (private and state-owned), and the community, particularly the local people (natives) or those who permanently dwell in the vicinity of production forest including the area incorporated in the KPHP unit. In this way, these principles of forest management can continually guarantee profits in terms of economy for the three concerned parties without disturbing the sustenance of the forest resources².

The economic crisis followed by political crisis, which has lasted since 1997, has caused many different changes. In fact, it has had great impacts on the activities of various companies as well as business activities in Indonesia. Such conditions have prevented

¹ Dr. Ir. John E.H.J. FoEh, Lecturer of Kopertis III, University of Indonusa Esa Unggul and STIE Gandhi
² Herman Haeruman, 2000. *Peranan Kehutanan Sebagai Penggerak Ekonomi Nasional: Nostalgia Masa Lalu?* Makalah Dalam Diskusi Panel Nasional "Quovadis Pembangunan Kehutanan Indonesia", Jakarta.

significant development of business activities. In the year 2000 there was a turning point in the history of Indonesian government; a transition from a centralized government to a decentralized one, which is commonly known as regional autonomy, the implementation of which began on January 1, 2001. One of the major problems concerning the Regional Autonomy policy is excessive demand from the regional government for rights to ownership of natural resources.³

PT Inhutani I, a business institution concentrating its business on forest management in East Kalimantan, has established its unit in Labanan which should be managed based on the concept of KPHP in order that the model sustained forest management can be developed in other areas of production forest in Indonesia. For this reason, PT Inhutani, collaborates with European Economic Community -through BFMP- does various researches on natural forest, in order to straighten up its internal management, especially its business system for the achievement of the company's goal. One of the research is about the marketing of forest products gained from the existing areas. This marketing procedure and mechanism should be improved in order to contribute the national revenue and people welfare. It seems that the concept which has been applied so far, has not brought maximum results.⁴

CHAPTER II RESEARCH METHODOLOGY

In this research, many methods and approaches were employed in order that we could formulate an appropriate concept or model that could include the participation of local people on the forest activities while keeping its sustainability. This research started with secondary data gathering from various sources and from that tabulation and analysis processes were done.

To complete the secondary data including its accuracy testing, a simple and unstructured questionnaires was used to interview some key respondents such as the administrator of PT. Inhutani I, local and expatriate consultants also some local people surrounding the project area. Other methods used in this data collection process was through Focus Group Discussion and workshop with stakeholders and shareholders.⁵

³ M. Syaifullah dan Yus Ikawati, 2001. *Otonomi Daerah Dan Kegamangan Soal Lingkungan Hidup*. Harian Kompas – Kamis 18 Januari 2001, Jakarta

⁴ Biro KLN dan Investasi, 2002. *Evaluasi Kegiatan PT. Inhutani I s/d V*. Departemen Kehutanan. Tidak diterbitkan. Jakarta.

⁵ Tim PSSEKI, 2000. *Pedoman Survei Sosial-Ekonomi Kehutanan Indonesia*. Badan Penelitian Dan Pengembangan Kehutanan dan Perkebunan. Jakarta

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CHAPTER III
GENERAL DESCRIPTION OF KPHP BERAU

Based on Regional Land Use (RTRWP), KPHP Labanan has an area comprising Production Forest Area: 81.564 ha and Non Timber Forest Management Area : 1.676 ha. Of the total area, only 62% (52.607 ha) of it can be effectively utilized for production. 69% of the area is slope and flat, 25.5% is steep and 5,5% extremely steep. The amount of rainfall in that area reaches 2000 mm/year and in each month 100 mm/year. Topographically, the area is wavy, hilly and steep and is located at DAS Segah and Kelai. The area is typically covered by Dipterocarpaceae type dominated by Shorea, Dipterocarpus and Vatica. Another type commonly found is Euphorbiaceae. The types of protected tree found in this area are, among others, Tengkawang, ironwood (Ulin), Bangkerai, Jelutung, and Durian.

The average commercial potential of the area⁶ reaches 60,55 m³/ha with a diameter of 0,93 cm per year for shorea. The purpose of the forest utilization is to produce logs in a sustained way as well as to improve the productivity of forest land. The estimated timber production based on the vastness of productive area of 52.607 ha is as follows:

- Logging Target Area : 1.500 ha/year
- Estimated logging volume : 30 – 50 m³/ha
- Range of estimated production : 31.000 m³/year – 51.000 m³/year.

A. Logging Potentials and Forest Security

The average of logging potentials is 40 – 45 m³ / ha. At present, good quality of Meranti can be sold for up to Rp 405.000/m³. The harvest cost is estimated to be around of Rp 300.000/m³. The total royalty is Rp 280.000/m³ with the (timber royalty) of about Rp 150.000/m³. The regional government deserves only Rp 30.000/m³, just increased from Rp 10.000/m³. The main resource of original revenue from the region (PAD) is the natural resources including from forest, mining, and marine resources. The primary problem lies in the uncertainty of the regional autonomy program. Both the national and provincial government still have different interpretation towards this program.

B. Estimated Log Production Based on RKPH⁷

The estimated production in the Labanan Unit is based on the assumptions and calculation as follows:

1. Size of productive area : 52.697 ha.
2. Logging area/year..... : 1.500 ha/year.
3. Estimated logging volume : 30 – 50 m³/ha.
4. Estimated range of production : 31.000 m³/year – 51.000 m³/year.

⁶ Hasil survey Fahutan UGM, 2000 dalam rangka penyusunan RKPH PT. Inhutani I Labanan

⁶ Ibid

The targeted production in the:

1. 1 st 5 years	: 41.580 m ³ /year	1 st total	207.900 m ³
2. 2 nd 5 years	: 33.600 m ³ /year	2 nd total	168.000 m ³
3. 3 rd 5 years	: 47.880 m ³ /year	3 rd total	239.400 m ³
4. 4 th 5 years	: 37.880 m ³ /year	4 th total	189.400 m ³

Harvest is done by mechanical system which constitutes the first step of sustained forest management, and supported by sufficient equipment and experienced operators. The measure to determine logging rotation is based on the decision made by the Ministry of Forestry, that is the average diameter increment is 1 cm / year with the a cycle of 35 years. The calculation of annual allowable cutting (AAC) area in every 5 years is $5/35 \times$ the size of productive areas. While the calculation of AAC in volume in every 5 years is $5/35 \times$ the volume of the types of commercial trees with a diameter of 50 cm above / ha from every block times the size of productive areas times 0,7 (security factor) times 0,8 (exploitation factor).

The development cost is calculated in rupiah and 1 USD equals Rp 9.000. The assumed prices in this case are Rp 590.000/m³ of Meranti and Rp 470.000/m³ for mixed wood category. Some data pertaining the projected income and costs are shown below:

- The average production cost/m³ = Rp 426.950 (excluding tax) or Rp 470.410 (incl. tax)
- The average profit gained/m³ (gross) = Rp 143.050
- The average profit gained/m³ (net) = Rp 99.590
- Contribution to reforestation fund : ± Rp 5,9 billion /year
- Contribution to provision of forest resources : ± Rp 2,6 billion / year
- Land and Building tax (PBB) : ± Rp 4,2 billion
- Contribution to forest village development and the compensation to the local people = ± Rp 262.500.000/year.

Based on the data provided above, the economic analysis on the sustained forest management in the Labanan Unit can be done in more detail.

2. General Policies on Marketing Forest Products

The general policies on marketing are still based on the rules and regulation made by PT Inhutani I, Labanan Unit, namely to sustain and increase sales by way of constantly maintaining and encourage the buyers' trust. Therefore, every step taken must be based on quality, quantity, price, delivery time and service. In order to improve successful sales and to prevent idle lock, either logs or timbers, the following policies must be put into effect:

1. Logs marketing system is based on lots, the sales volume is in accordance with the availability of logs ready to be marketed and the buyers are those who belong to IPKH or those who hold shares in IPKH.
2. Sawn Wood is directly marketed to the end-users.
3. The marketing of industrial products is primarily directed to export; however, the ones that have gained domestic markets, such as window or door frames and doors are kept to meet domestic demands.

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Based on the nature of marketing, the marketing activities are categorized into two, regular marketing which is profit oriented. Local supply of logs and timber for the fulfillment of the local people's needs. This tends to be a participation in improving the fulfillment of the people's basic needs while trying to gain profit. Then, based on the intended markets, the activities of business marketing are categorized into two, domestic marketing, most of which are logs to meet the needs of industries prioritizing exports and international marketing of wood products.

It is necessary to notice that up to the present time PT Inhutani I has given first priority to the direct marketing of logs because it is quicker to gain cash and its more profitable compared with its forest products in Tarakan, Gresik, and Bekasi. In general, the average of exported timber performed by PT Inhutani I in the year 2000 was 6.991 m³. This performance reached only 36% of the target : 19.203 m³. This export volume suffered a decline compared to the volume in 1999 which reached 8.157 m³. As for the products for doors, the performance reached 7.868 pieces or 68% of the targeted 9.800 pieces. This performance suffered a drastic decline compared to the previous year's. Pine resin products reached 359 tons or 80% of the target. The sales of logs in the domestic markets in 2002 reached 830.032 m³ or 145% of the target. One of the products marketed was ex-HTI timber which reached 14.115 m³. The sales of timber used for lumber reached 2.091 m³ (119%) including the sales in the local markets.

The export in the year 2002 was generally in the form of wood products with a total volume of 6.991 m³ or 36% of the targeted budget, and 7.868 pieces for doors/windows (80%). The marketing of the above mentioned wood products included the products by joint operation (KSO). In total, the marketing of logs exceeded the target up to 145%, timber used for lumber 119% and wood products 35%, all of which were sold in both domestic and international markets.⁸

CHAPTER IV MANAGEMENT OF PRODUCTION FOREST, BASED ON KPHP CONCEPT AND THE MARKETING OF ITS PRODUCTS

A. Application of KPHP Concept on Production Forest Management

Forest management has some specific characteristics, which can be differentiated from other systems of land cultivation. One of the specific characteristics of forest management is that it takes a very long time before harvest. The primary principle of forest management is maximum and sustained yield principle. Based on this principle, the harvest of forest produce must be done in such a way in order that it will not reduce or even finish off its product potentials.

⁸ Inhutani I, 2002. *Laporan Industri Bekasi Tahun 2001*. Tidak diterbitkan. Jakarta

One of the silvicultural systems that can assure forest sustainability, is put into practice, the Indonesian Model of Plantation and Selective Cutting System (TPTI) which includes logging with allowed diameter and reforestation. This system was put into practice for the first time in 1972 and by that time it was called TPI. This system is considered the best and the most suitable in terms of economy, ecology, and technology to be applied towards tropical rain forest in Indonesia.

The system is a chain of planned activities in the forest management that includes logging, reforestation, and maintenance of forest stand. It surely assures the sustenance of timber production as well as other forest products. Further, Indonesian Model of Plantation and Selective Cutting System is a system that includes how logging is done based on the allowed diameter and reforestation. TPTI is intended to regulate the use of production natural forest and to raise the value of forest in terms of both quality and quantity in the previous logging areas. This is done for the next rotation. In this way, there will be the mixed forest stand which can be expected to produce regularly, the industrial round wood.⁹

The Forestry Minister's Decree number 200 in 1991 pertaining the guidelines for the establishment of The Management of Production Forest Area (KPHP) underlines some important criteria to be followed, such as:

1. The forest area that can be made as KPHP is production forest area.
2. The location of KPHP is determined with reference to river stream flow area, administrative borders, natural border and / or decided borders as well as area development plan.
3. The establishment of KPHP is based on the forest condition, exertion intensity, silviculture system, and the social and economic condition of the people living around the forest.
4. The stand composition in KPHP can be natural forest, plantation forest, or the combination of natural forest and plantation forest which is managed based on one or several silviculture systems.

Although the borders of KPHP areas have been ruled in the guidelines, after the borders have been agreed upon they must be marked with boundary pales and measured in accordance with the Forestry Minister's Decree No.400/Kpts-II/1990 by Regional Commission for Bordering. In the bordering process there must be a negotiation on the borders with those who cultivate the areas around the forest. It seems that this has not been successful. As a result, many of the villagers neglect the borders of the forest areas by way of cultivating the areas and then they plant such perennial crops as coffee, cocoa, rubber plants, and others. To settle these problems usually requires a lot of time, money, and energy.

The purpose of establishing KPHP is to manage production forest based on the principles of sustainable, rationality, and profitability in order to continually assure the availability of forest produce and other uses for national development, regional development, and the local people around the forest. In order to put into practice the concept of KPHP in the logging concession areas or other areas appointed by the government, in those areas there must be some major activities necessarily needed to

⁹ Untung Iskandar, 2001. Potret Hutan Indonesia. Makalah Kelompok I, Kongres Kehutanan Indonesia III, Gedung Manggala Wanabakti, 25 - 28 Oktober 2001

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assure the sustenance of forest resources. When carrying out those activities, the local people, the national and local government and those coming from private sectors have the chance to interact with one another in a positive way.

Forest management, including KPHP should cover such assumed major activities as follows:

1. Forest planning that includes bordering, stock taking, forest structuring, clearing forest area, work planning, and so on.
2. Forest cultivation that includes inventory of logged over areas, seedling, planting, plants maintenance, settling problems of shifting cultivation and deforestation.
3. Harvesting forest products that include logging method, log cutting, skidding, transporting forest products, log ponds or log yards, timber administration, harvesting and utilizing non-timber forest products.
4. Forest protection that includes fire, soil and water conservation, natural resources conservation, pest and disease control (forest and forest produce), prevention of timber theft and illegal logging, etc.
5. Manufacturing forest products including primary industry, secondary timber industry and waste recycle.
6. Marketing forest products that includes production plan, marketing institution, market mechanism, promotion, market research, distribution strategy, etc.
7. Research and development that includes institutional research and development, marketing research and development, and community development research and development.
8. Analysis on impacts on environment.
9. Community development that includes philosophy of developing self-supporting community, self-supporting community development strategy, social analysis, group development, society self-supporting group management, group building and development, women and youth in development, forming cadres, and self-supporting community development management.

In general, all the activities, especially those that are related to technical forestry will refer to the ones in the guidelines of Indonesian Model of Plantation and Selective Cutting which have been ruled by the ministry of forestry. The important things to be noted in a KPHP area in relation to the local people/community are their actual condition and the things needed in an effort to develop the community in line with their roles in KPHP management.

Based on experiences in forest management so far and taking into consideration all the existing definitive factors, there should be some modifications forest management system in Indonesia. So far forest exploitation has been operated by logging concession or businessmen under the government's direction and some others are operated by state-owned companies such as PT Inhutani I. On the other hand, interference towards forest sustenance comes from the local people or from the activities performed by the local people around the forest, such as swidden agriculture, gathering non-timber forest products, etc. For this reason, sometimes the local people are considered the government and logging concession holder's enemies, or vice-versa. Therefore, there must be a model forest management which can facilitate the interests of the government, logging concession

holders and the local people without interfering the principles of continuing and maximum forest exploitation. In addition, in terms of Regional Autonomy, it may happen that the local people are manipulated by the local government or other private institutions to cause damage to the existing forest resources.

As we know, exploiting forest and forest products is regulated based on the principle of sustenance and business principles which assure maximum income for the nation and is in line with the needs of the people living around the forest. Today, the local government is also involved in such a business in order to raise the regional income. For this reason, the development of forest sustenance units intended for conversion forest, protected forest and production forest constitutes a model forest management based on sustenance and business principles. This will be better if the establishment of the sustained management units is accompanied by creating positive interaction among the national and regional government, private institutions and the local people living around state forest. The intended concept is actually a model production forest management which, in general, have the following characteristics:

1. Area side: ± 100.000 ha which can be managed as an integrated business and be directed to gain continuing and profitable products.
2. Area borders; ideally, natural borders are used, they must be agreed upon, and the areas outside the borders must not be invaded. The borders must be clearly marked.
3. Area status; the area constitutes a stable production forest area, in which timber and other forest products are produced, and there should not be any irrigated agricultural areas within this area since it is continually managed based on KPHP.
4. Land clearing and preparation; the concession area will be divided into lots. The division is done based on the forest condition, habitat and the proper borders. The size of each lot with permanent borders is ranging from 100 – 150 ha and the forest in each lot should be homogenous.
5. Management principles; the allowed amount of annual logging is based on the increment growth of the whole area of KPHP. The KPHP manager is responsible for the maintenance of the whole area of KPHP, and the local people are actively involved in the KPHP management.
6. Changes of forest sustenance in accordance with KPHP system; the sustenance can be assured as long as there is a constant reforestation. Production is based on the volume which is in line with the increment. The increment is identified through constant research on the size of the stable area which has been agreed upon and to which everyone is bound.
7. Model KPHP; in addition to other systems, this model is expected to give more assurance towards sustained productive forest management, particularly in meeting the domestic and international markets.

B. Community Forest Management

1. The Purpose of Involving the Local People in KPHP Activities

The local people are involved in the KPHP activities in order to create a positive mechanism or interaction among the people, private businessmen, and the national and

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local government. In this way, the concerned productive forest area can also be managed by the local people as a business system, in addition to the permanent and self-supporting farming in the villages around the KPHP area. By so doing, the local people/petani hutan are able to improve their standard of living but are still bound to the principles of sustained forest.

Involving the local people by means of enhancing their participation in KPHP management is intended to meet three objectives below:

1. To protect the forest, conserve the area and water, and create environment stability.
2. To improve continuing multipurpose output (food and forest produce) in line with the local people's interests based on the application of effective technology and the principles of sustainable production forest management.
3. To fight poverty and improve the local people's welfare through self-support approach.

The objectives mentioned above can only be met if the knowledge and skills of the local people or the owner of the land around KPHP are improved, especially the knowledge and skills related to silviculture aspects, organizational and managerial aspects, as well as administration after harvest (processing and marketing).

2. Objectives

In general, the program of involving the local people in the KPHP management can be divided into biophysical and social objectives. The biophysical objective deals with the land included in the KPHP area which can be cultivated. The areas that require community development program are citizen-owned forest, citizen forest from free state-owned land, traditional/clan forest, land in critical situation in or around the KPHP area, or other areas around the KPHP area. The social objective can be in the form of individuals or groups of local people who are expected to benefit from the community development program through the operation of KPHP. This social objective can be divided into two groups:

- The first is primarily intended for those who directly get the benefit from the KPHP program, such as non-land owner workers, farmers living around the forest, the villagers, and other groups of people with low income.
- The second is those who indirectly get the benefit from the KPHP program, such as merchants, the owners of the land around the KPHP area, and those who depend on the KPHP area.

Biophysical and social objectives only are not enough. Based on the expected management system that is crucially needed in order to develop the community, special attention must be directed to the commodity expected by the community and to the management area unit, based on the indicators below:

- Size of the land owned by the people around the KPHP area.
- The biophysical condition of the area.
- The farmers' primary needs (minimum physical needs)
- The existing type of commodity and the one to be developed by the local people.
- The market condition and the presence of the local economic institutions that can function as the people's partner (the foster parent concept) in processing and marketing.

- The public policy on area development plan, etc.

3. The Process of Forest Management by the Local People

Enhancing the local people's participation is one kind of manifestation of social forest concept in forest management. The way how forest is managed by actively involving the local people can be described below:

- Encourage the local people who have initiatives to provide themselves with needs for food, housing, and other non-timber forest products gained from the KPHP area.
- Encourage people's participation in accordance with the existing regulations without giving them excessive burdens.
- Treat the local people as agent of development in the whole process, from making decisions to identify their needs, planning, operation, maintaining and developing with the help of technical and physical support from the government or the businessmen when needed.

Development strategy stressing on community-based development requires not only new orientation for the development organizer (government and businessmen) but also new vision of the local people who are used to get the results of the development. Therefore, the approach to be used now is bottom-up. The policies on the development are not only the concerns of the government and the businessmen, but also the concerns of the people, who also become the target of the development. The operational stages in the forest management system in which the local people are actively involved can be briefly explained as follows:

- Detail Project Design and Consolidation of Management Concept among the businessmen, government and the community.
- Continual Project Plan, Mobilization of Resources, and Community Development Training.
- Establishment and stabilization of the status of the location to be made KPHP area, in which the local people are involved in any kind of activity.
- Community preparation through training programs necessarily needed.
- Project operation
- Maintenance and Management
- Supervision, control, and evaluation.
- Further activities in sustained forest management.

C. Strategic Concepts in Forest Products Marketing Plan

In relation to the change in forest management concept and the change in governmental politics as well as the purpose of empowering the community, there must be special studies on forest products marketing system, which suit the need of a KPHP area. If the local people are involved in all aspects of forest management including forest protection, then it might be better if the marketing is managed by private business partners or local government-owned companies established for such a purpose. In this way, all the stages in marketing activities can be properly carried out.

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When a study on marketing is carried out, the first step that must be done is to identify needs, wants, and demand. When the demand is identified, it must soon be compared to the supply in order to decide whether the company will compete in the existing market or it will make use of another strategy such as creating new products, finding new market niche or maybe turn to brand new products or services.

Based on the present condition of the existing forest, both natural forest and plantation forest (HTI), something must be done to stop the dependency on timber for the source of the national revenue although it is difficult to be realized in such a critical moment for the nation due to the economic crisis. However, this might be a right moment to think about the forest sustenance as the country's asset. But, in comparison with the total international demand on logs for plywood manufacture amounting to 50 million m³/year while the domestic demand amounts to 5 – 6 million m³/year, it means that the existing log supply is far from demand.¹⁰

In the meantime, there is still a lack of logs supply for the domestic wood industries. This is a result of, among other things, illegal logging, log export is allowed again including forest royalty (IPK) issued by the local government, which have great influence on the log sale price in the markets. It is worried that the spread of illegal logs will go to the thousands of units of illegal sawmills. For this reason, it is sensible to say that the moratorium of log export and the intention of the minister of forestry not to extend the license on logging concession should be welcome.¹¹

Based on the analysis on the potential markets it is believed that the KPHP area in Labanan will not undergo problems of marketing its logs provided that PT Inhutani I Labanan Unit is willing to develop an industry that can absorb all the logs. PT Inhutani I can also cooperate with the local government-owned companies in order to protect / secure the forest in the region as their asset as well as the permanent sources of their income.

The major steps to be taken when creating the strategy to market the woods and wood based products gained from the KPHP area in the future are as follows:

1. Strategic Marketing Plan

Strategic marketing plan on forest products gained in the KPHP area in the future should start from: the analysis or the condition of the macro environment, competition, and the market condition. Then, there should be a study on the available human resources. Since the local people will be involved in the KPHP management, the preparation of human resources in accordance with the necessary skills needed must soon be considered. At the first stage, the local people can only be involved in the logging activities, while the processing is done by the company and the local government-owned company established for such business.

The strategic plan must also be in line with the strategic formulation in the concerned region, which is related to the purpose of the development and the utilization of

¹⁰ *Bisnis Indonesia*, Tuesday 16 October 2001., *Pemerintah diminta bentuk Kantor Pemasaran Bersama (KPB) untuk tata niaga kayu*, Jakarta, p.6.

¹¹ *Ibid*, p.24.

the forest resources in the concerned region. The local government must be able to determine how much contribution expected from the forestry sector to the original revenue of the region (PAD). However, the regulations they will make should be acceptable to the other concerned parties. Therefore, it is necessary for the local government must soon create the supporting systems which can assure the success of processing phase such as regional information system, regional planning system, and regional evaluation system. All these are vitally needed by the marketing unit in the decision making process. A study must soon be done on the roles of each party (community, government, and company) in the KPHP management process in order to prevent unexpected results.

2. Strategy for Determining Market Target and Market position

The primary targeted market for forest products gained from the KPHP area should firstly aimed to meet the demand of the local industries. If PT. Inhutani I is involved as a business partner, a primary or secondary timber industry with industrial scale based on AAC (annual allowable cutting) of the forest must be established.

Market segmentation should be done taking into consideration the geographical aspects, social economic aspects, psycho-graphical aspects, as well as market behaviour. The process of market segmentation must be done on the basis of reliable market research. When the industrial products are to be manufactured, then they must be studied in order to avoid the choice of timber industry that has strong foreign competitors. Such products as moulding and woodworking tend to have strong competitors in the international markets. When the export orientation is to be done, it must be done in such a way that it can maintain the relation with the business partners maintained by PT Inhutani I so far. By so doing the local government's positioning towards forest products to be manufactured can be competitive.

Basically, the problem arising in the market segmentation is whether such different factors as income level, age, family size, industry capacity, etc. are necessarily needed in an effort to meet the sale target of a business unit. A thorough and careful analysis is required to determine an exact and actual segment so that the market is targeted for only one segment or some segments which are considered sensible.

The interest in a market segment is determined by the following aspects:

- a. Measurability; is it possible to measure the potentials of the forest products (timber and non-timber) in a particular market segment?
- b. Accessibility; are the industries or the customers provided with facilities when purchasing the products manufactured? What are the facilities and what are they like?
- c. Distribution and Promotion; are the great demand from the customers gained through promotion or through distribution as done so far?
- d. Defensibility; are the available customers reliable in the segment so as to support more specific marketing activities?
- e. Stability; in case the market is getting better, will the segment maintain the differences in it or will they vanish?
- f. Competitiveness; will KPHP, the local government and their business partners gain significant profit when there is a competition in a particular market segment?

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- g. Feasibility; is it possible to make use of marketing-mix in each segment to make the customers interested to create business relation?

Deciding a marketing target is part of the marketing strategy, which provides the basis for the management to determine the goal and positioning strategy development. The decision on the marketing target is generally made based on four aspects, namely:

- Sales potential; how much potential the market segment has at present and in the future when viewed from such aspects as the development of the local people's income, technological development, etc.
- Competition; how tough is the competition in the market segment at present? How much benefit will be the local government gained in comparison with the competitors in the same market?
- Cost; how much money is required to develop the products of forest product industry as well as non-timber products?
- Serviceability; does the local government have the financial and managerial capability to plan or design promotion activities, effective distribution system for the products of timber industry which will satisfy the customers?

3. Marketing-mix Strategy

When a company decide to use marketing mix strategy, it, in fact, has decided to use a strategy to be used in order to win the market competition. In marketing mix strategy there are four variables, which can be used as the basis in order to win the market competition, namely:

- Market segmentation followed by the choice of market segment.
- Marketing mix comprises four aspects, namely Product, Price, Promotion, and Place (4 P's). The 4 P's nowadays are not able to win the competition. Many experts add other P's such as People, Positioning, Public Relations, Power, Physical, Publicity, and Purchasing Power.
- Marketing budget.
- Timing.

In fact, marketing strategy is not only marketing mix comprising 4 P's, but in the implementation it is, first of all, necessary to choose the market target to be aimed at, whether there is enough budget to operate the marketing activities, and whether it is the right time since if it is not the right and suitable time, everything will be in vain.

In relation to the industrial products to be manufactured, it is worth asking the following questions. Who will be the targeted market? What are the needs and the wants of the targeted market? What kinds of products will meet the needs and wants of the targeted market? With reference to these questions, some concepts regarding forest product marketing are recommended below:

- Forest exploitation must be carried out through not only joint operation and self-supporting management, but also the involvement of the community as a business institution.
- The marketing of the timber gained from forest exploitation must be done through the business partner (PT Inhutani I) after meeting the internal needs for industries established around the KPHP area.
- The kinds of industrial products manufactured that have no tight competition and are able to meet the local demand and domestic consumption are timber used for lumber.
- Other timber industries such as moulding and woodworking may be established provided that the international market position must be carefully considered in order that we will not compete with the developed countries. In addition, the investment and insufficient human resources must also be taken into consideration.
- The process of trading of wood-based products should be done by the company; however, the roles of the shareholders must be well regulated. In the context of developing the region and its local people, it is necessary for the regional government and forest farmer group (KTH) to share the ownership of the concerned industry.
- If the mechanism of profit sharing and the sharing of responsibility are well done, the local government will share the most responsibility in securing the forest and its products. The buffer zone concept, which has been practices so far to determine the borders using plants, natural marks, plantations, etc. should be improved by way of involving the local people to share the responsibility when they know that they live mostly on the forest (KPHP), they will certainly secure the forest from any kind of threats.
- The greatest contribution expected from the local government and the local people is their responsibility to secure and preserve the forest functioning as the source of their income. For this reason, their commitment and budget are expected.
- Technical affairs, and the process of developing the business up to marketing process will be shared by the business partner (PT Inhutani I). In this case, PT Inhutani I has to redesign its long range strategy in managing the forest (HPH) transferred to them.

CHAPTER V CONCLUSIONS AND RECOMMENDATIONS

In order to be able to compete in the globalization era, it is vital to apply the concept of business partnership; forest exploitation business is no exception. The partnership in this concern is the one which can meet the needs of all parties concerned in the exploitation of forest resources, namely the national and regional government (national and regional revenue), the local community (source of living), and the business institutions (profit-making).

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2. One of the best concepts designed to realize the ideals above is KPHP concept which has been put into practice in several areas as pilot projects. To put this concept into practice, broad knowledge on this concept is required in order that the existing problem can be settled and necessary adjustments can be made to meet the local needs.
3. In order to settle the problem of forest destruction, which is getting worse nowadays as a result of forest fire, illegal logging as well as legal logging based on IPK issued by the local government, it is urgently required to put an end to the sending of logs to other provinces for the sake of better prevention and control.
4. When it is proved that the business institutions or other institutions in the community break the TPTI regulations, their licenses must be terminated for the sake of law in enforcement. The proposed log export moratorium is necessarily supported since it will protect the domestic timber industries as well as assure the sustenance of the living space.
5. Based on the data gained from APHI, the loss suffered by the country due to illegal logging is amounting to \$US 7,710 billion. This amount comprises a loss of \$US 5,560 billion in the national revenue and a loss of \$US 2,150 billion in the tax and non-tax income. It must be noticed that this is actually the loss suffered by the local people and the local government. Therefore, it is important for the local government to note that the ban on log export is not intended to reduce the regional income, but to assure forest conservation and prevent the forest produce from being plundered and smuggled.
6. It is important that all the concerned parties be committed to empowering the local people who depend their earnings on forest produce. The practice of involving the local community in the KPHP management should be tactfully carried out in order to avoid malpractice done on behalf the local community's interests.
7. The business of forest exploitation which has been run through joint operation and self-supporting management so far must now involve the local communities as business institutions functioning as partners.
8. The marketing of the timber gained from the forest must be carried out through the business partner (PT Inhutani I) after fulfilling the needs of the industries established in the vicinity of KPHP area.

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