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Some Considerations on Forest Utilization and Management in the Developing Countries of the Pacific Region

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1. Introduction

Generally speaking, the areas surrounding the Pacific Ocean are blessed with forest resources. Forest types from frigid to tropical are found in the Pacific region. Therefore, there are many countries which are able to export lumber products.

Not only in developing countries, which have not fully exploited their resources, but also in advanced countries mass production and export of lumber is occurring. But such production and export in advanced countries of the area is centered in the underdeveloped regions of those countries. For example, included in such areas are the far eastern regions of the U.S.S.R. and the west coast of Canada and the U.S.A. (including Alaska). Exports from advanced countries consist mainly of softwoods and, from developing countries, of tropical hardwoods.

There are many problems related to the rapid development of forest resources of each region when accompanying general economic growth, but in this paper I wish to limit consideration mainly to several points, focussing on the countries of Southeast Asia.

2. Factors limiting forest development in developing countries

Originally, in capitalistic economies, the development of forest resources has been an important issue arising out of their desire to obtain commercial lumber products as cheaply as possible. Therefore, there was little concern about cut over areas. However, in any country forest exploitation infringes on land conservation and sustained yield of forest products. Not only government but enterprise also has become concerned about long-term maintenance of forest resources. In addition, the necessity of nature conservation and forest recreation have come to be emphasized.

What then is the situation in developing countries?

1) In developing countries which were formerly colonial territories, because the phenomena of nationalism and racial consciousness are becoming marked, national pride is increasing and these countries are becoming particularly concerned about the intrusion of foreign capital into their territories.

2) Due to the gradual reduction of forest resources, attention is being given to control of forest cutting and limitation of log exports.

For these reasons, merely the purchase of low-priced lumber or forced exploitation of forest resources is insufficient. Consideration must be given to forest management after cutting in developing countries too.

3. The real meaning of "forest development"

In my understanding of "forest development", the term means not merely exploitative utilization but also includes various aspects of resource improvement. Capital of advanced countries proposing to enter into development of forest resources in developing countries, together with those countries must be concerned with not only exploitation but also with profitable land utilization and appropriate forest administration. Forestry technology appropriate to each country must be established. Appropriate technology includes: 1) forest inventory 2) logging 3) regeneration 4) protection and 5) planning. In most countries the abolition of shifting cultivation is required.

This appropriate technology must be established within a consistent forestry policy of each country. Of course, these forestry policies should be one link of modern industrial policy. To achieve this, the warm interest of specialists of advanced countries is needed.

4. Relationship of Southeast Asian countries to former ruling countries

Of course, it would be incorrect to indicate a complete absence of forestry policy in these countries. Nevertheless, when we survey the forest policies of these countries, the strong and continuing influence of former ruling countries is evident.

1) Philippines — U.S.A.

In the case of the Philippines, the rule of Spain preceding that of the U.S.A. must not be forgotten.

2) North and South Vietnam, Laos, Cambodia — France

North Vietnam's forestry institutions have been Sovietized, but in the other areas of the Indochinese peninsula, French forest law has prevailed.

3) Thailand, Burma, Malaysia — U.K.

Thailand, the only non-colonized nation in Southeast Asia, existed as a buffer zone between Indochina, Burma and Malaya, but the strong influence of United Kingdom is evident.

4) Indonesia — Netherlands

Because the Netherlands possessed no forestry industry to speak of when

the islands were first colonized, the influence of German forest administration was strong.

The above relationships are of great importance not only to the process of general forestry development but also when further development is considered.

In fact, these advanced countries have profited much from colonial forestry exploitation but they have also rendered meritorious service. For example, they contributed superior technology and practices in the establishment of teak forests in Java, Thailand and Burma. This aspect of colonial forest administration should not be over-stressed but can not be overlooked in relation to development of further forestry policies and institutions.

5. Exploitation of forest resources for importation

The exploitation of natural resources for importation is a serious concern of most advanced countries. I define "exploitation for importation" as follows: the exploitation by production capital of a country and the securing of natural resources for import into that country itself. Types of forest products imported include logs and semi-processed products such as sawn woods, pulp and others.

Therefore, exploitation for importation occurs also between advanced countries. For example, Japan exports to the far eastern regions of the U.S.S.R. production capital in the form of materials for forest exploitation in order to gain imports of commercial forest products.

The importance of "the exploitation of forest resources for importation" has been recognized now at the very time when the limitations on the system of commercial import only have become apparent. The former system is being carried out in the form of economic cooperation. But imperialistic, neocolonial tendencies must be guarded against. Circumspection is required of advanced countries since these tendencies are of serious concern to developing countries.

In Japan, frequently pulp companies have combined, or production companies have associated with trading companies, to establish on-the-spot joint enterprises. In such instances labor is locally supplied, but capital goods, technology and much of the capital has been supplied by Japan.

6. Necessity and methodology of forest regeneration

Most Southeast Asian countries are at a first stage of general economic processes, in other words, economies which I assume will be appropriately centered in primary production for some time to come.

Indonesia's failure as a result of Soekarno's forced industrialization policies provides a good lesson in regard to forestry, to wit: a stable industrial base requires the guarantee of forest regeneration. Furthermore, in the future, forests

will come to be valued as world-wide, important land covering. In addition, having timber stands in themselves, including wild life, developing countries will find forest-related tourist industry to be of economic value also.

To restore conditions to the state prior to cutting over in the case of an overwhelming number of broadleaved trees, where trees appropriate to the plywood industry are no more than five or at most one dozen per hectare—to return to such a situation would hardly be profitable. Even in the event the current extensive usage should be converted to intensive usage, the economic facts do not change.

Therefore, artificial regeneration is an effective method. The final, end purpose must be made clear—for example, for producing pulpwood or other industrial woods. Teak, agathis and similar useful species are in the latter category; eucalyptus, kalampayang and others are in the former category, while pine species may be included in both categories.

For the time being, forestry on short-term rotation will be adopted. In Japan's past experience and in currently projected promotion, tree species for planting have included the following: *Pinus merkusii*, *P. curibaea*, *P. insularis*, *Albizia falcata*, *Anthocephalus cadamba*, *Eucalyptus* spp., etc.

Some individuals have emphasized the great difficulties of artificial regeneration, due to natural conditions and economic conditions of Southeast Asia, but these can be overcome.

7. Development of land utilization

In Southeast Asia, where capital accumulation and wages are relatively low, appropriate land utilization policies would largely consist of arboriculture such as cultivation of rubber tree, oil palm, coconut palm or others. Of course appropriate arboricultural policies must be accompanied by promotion of general agricultural development and, when needed, permanent population resettlement.

Foresters generally only project immediate restoration of cut over forest areas but need to take a wide over-view of land utilization. For example, in West Malaysia land utilization program is graded according to mining, estate agriculture (including arboriculture), medium scale agriculture, forestry, and finally, water resources and recreation. According to these policies, forests will be pushed from the lowlands to highlands (above 300 m.).

Such Malaysian policies are not disadvantageous to Southeast Asian forestry in general, for the following reasons:

- 1). With economic stabilization of rural society, the supply of labor required by forest enterprise will be assured. For example, in Java the Taungya method of national forests has made a considerable contribution for teak planting, even if not without problems.

2). Agricultural progress is related to general economic progress. Rising agricultural income stimulates general merchandise demand including demand for lumber and processed woods.

The above does not negate the establishment of wood processing level of industry. Such industry is comparatively labor-intensive and, to some extent, suitable for locating in developing countries. And all countries desire the value added to commercial exports which results. Wood chips, sawn woods, veneer sheets, primary plywood and the like are examples of value added to commercial lumber exports.

8. The condition of Japan's forestry and foreign lumber

The fact that Japan, with the highest real import level of wood products in the world, is in the Pacific region is highly fortunate for Japan.

Nevertheless, Japan has considerable forest resources. For example, two-thirds of total land area, 25 million hectares, are forested. Japan has two billion cubic metres of timber stock. In the past this stock was approximately half and half coniferous and broadleaved trees, but the percentage of coniferous trees is increasing due to exploitation of remote forests and rapid increase of man-made forests. Japan has annually 70 million cubic metres of forest cutting, resulting in 50 million cubic metres or less of industrial wood. Even such production supplies less than half of total demand for industrial wood. Japan has a low level of only 0.24 hectares of forest area per capita and is a highly industrialized nation—this situation is unavoidable.

The role of imported wood products in Japan has changed from supplementary to domestic production to competitive with domestic production. Currently, imported wood products consist of more than half of total demand for industrial wood. Imported products have not only created their own market within Japan but may perform a leading role in the market for wood products.

In the event that these trends continue, Japan will be compelled to show great concern for the long-term and stable existence of world-wide and especially Pacific forest resources. This, of course, is true for almost all developing advanced countries, but is particularly true in the case of Japan.

In the near future Japan's aid to developing countries is expected to reach roughly 1% of GNP. It is hoped that this will contribute to the lifting of the national economy and the increased welfare of the peoples of developing countries.

As a part of such economic aid, forest resource development, and development in the real sense which contributes to desirable co-existence and mutual welfare for Japan and developing countries, is necessary. The Japanese Govern-

ment is making real effort to so effectively guide and control enterprise capital in activities related to forest development of developing countries.

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