

THE FOREST RESOURCES OF THAILAND

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In Reader's Digest June 1955 was an article "Finland-Survival by Sisu", in which an epic account of Finland's economic recovery and honourable settlement of war indemnity to Russia was movingly narrated. As a symbol of Finland a small picture of her forest was also depicted on the letterhead. Actually, forest is to Finland much more than a symbol. Economically for example, forests are the veritable life blood of Finland since forest products constitute as much as 80 per cent of her total export value. Finland would be insolvent outright without her forest resources and thus the article may be rightly changed to "Finland-Survival by Forests".

Let us explore a little further this unique country, whose forest resources play such a phenomenal role in the national economy. Finland has 70 per cent of her land area under forests, while Thailand has 63 per cent. But the total land area of Finland is only 118,000 square miles, approximately 60 per cent of Thailand's. The forest resources of Finland aggregate only 21,630,000 hectares in area or about 67 per cent of the Thai forests. Yet Finland forests could produce as much as 4,000 million Bahts worth of national export value yearly, while the forest resources of Thailand are currently worth a mere 400 million Bahts. Figuratively, therefore, each acre of Finland forests is worth 15 times more than the same area of the Thai forests. This comparison needs not be depressing but should bring about a wave of optimism or open a new horizon in our future planning, since it reveals the future potential worth of our own forest resources.

With some 326,000 square kilometres, Thailand is among the lucky few classified as surplus areas in forest products. The production per area, however, is still meagre as compared with the world standard. We have been producing from our forests a mere 7 cubic metres per KM.² against the Asian average of 19M.³ In the same period the Philippines produced 19 M.³, Malaya 21 M.³, India 74 M.³, and Japan a whopping 131 M.³ per 1 KM.² Small wonder,

therefore, that we have been out-produced by Finland as much as 10 to 1 in volume. Thus one sure way of developing our forest resources is to step up production from the existing forest areas. If we could do so and equal the present Finland standard we would be producing ten times more than the current figure and almost equal the 4,000 million Bahts worth of forest products per year of Finland.

But what about forest conservation? Are we to sacrifice the sustained yield for immediate and short lived affluence? Surely Finland is not improvidentially squandering her forest resources, neither is Japan, India nor Malaya. Some explanation is due here for better appreciation of the issue. Thailand forests are extremely mixed in composition, aggregating several hundreds timber trees of potential economic significance. Hitherto we have been very selective and fastidious in procuring our timber requirements. Only the best such as Teak would be good enough. Up in the North where Teak abounds, for example, the ultimate goal is to have a spacious house constructed totally of Teak from posts to window sills, regardless of the fact that for heavy construction purposes, several other hardwoods could better serve the purpose than Teak.

In a way we are like a rich heir to a sizeable fortune, so we acquire a lavish habit, satisfied only with the cream of everything. For the past century therefore we have been exploiting only the best species. We have been doing so with Teak from the dawn of commercial timber business. During the prewar period, we extracted about 200,000 M.³ of Teak yearly and exported about 70,000 M.³ sawn timber on the average. Nowadays we are taking out 400,000 M.³ but still with the same amount of export. Thus our internal consumption of the best product is becoming more insatiable with years.

Let us illustrate further with other well-known species of timbers, the elite so to say of Thai forests. Out of several hundreds of tree species available in our forests, only 15 species account for more than 10,000 M.³ in volume of production per year. The total volume of these 15 species is as much as 1,443,610 M.³ or about 90 per cent of total production in 1954. They are in the following order of importance:

The Top 15 Timber Species Exploited in 1954

Order	Local Name	Scientific Name	Volume Produced M. ³
1	Teak	<i>Tectona grandis</i>	408,002
2	Teng & Rang	<i>Shorea obtusa</i> & <i>Pentacme suavis</i>	303,145
3	Yang	<i>Dipterocarpus alatus</i> & spp.	291,264
4	Phluang	<i>Dipterocarpus tuberculatus</i>	140,495
5	Ta-khian	<i>Hopea odorata</i>	57,043
6	Daeng	<i>Xylia kerrii</i>	44,228
7	Hiang	<i>Dipterocarpus obtusifolius</i>	39,327
8	Ta baek	<i>Lagerstroemia calyculata</i>	35,354
9	Ka-bak	<i>Anisoptera glabra</i>	27,790
10	Ma-kha-mong	<i>Azelia xylocarpa</i>	21,880
11	Ma-kha-tae	<i>Sindora siamensis</i>	20,096
12	Kwao	<i>Adina cordifolia</i>	16,709
13	Pra-doo	<i>Pterocarpus macrocarpus</i>	16,472
14	Ka-thon	<i>Sandoricum indicum</i>	12,592
15	Pha-yom	<i>Shorea floribunda</i>	11,213
Total 15 species			1,445,610

Forests consist of living trees that reproduce and grow, much like an accumulated interest on a capital wisely invested. Forests therefore are a renewable resource, and as such need the exploitation of over-mature and moribund stands of all existing species periodically. In exploiting the forests, if there is to be any discrimination in selecting the tree species to be taken out, naturally the inferior species should be exploited in favour of the more desirable ones, thereby encouraging the vigorous growth of valuable species and enhancing the economic worth of the cumulative forests as a whole. What we have been doing in the past therefore is just the reverse, that is exploiting only the best species and all the time inadvertently encouraging rank growth of relatively less valuable species.

The obvious solution for future development, therefore, lies in developing wider uses and better services of these numerous hitherto less-known species. Already since the war, due to relative scarcity and high cost of the popular species, several species of no apparent demand during the prewar period have come into the limelight, such as Somphong (*Tetrameles nudiflora*), Ma-kha-mong (*Azelia xylocarpa*) and Kwao (*Adina cordifolia*). Several others are still in the process of development such as Chumphraek (*Tarrietia* sp.), Khai-khieo (*Parashorea stellata*), Khiam-kha-nong (*Shorea hypochra*), Ta-sua (*Amoora polystachya*), Chan (*Shorea sericeiflora*) etc. In promoting wider uses of these species several objectives would have been achieved concurrently. To begin with, much greater volume of timber could be taken out of a unit area, which would directly increase the economic value of the forests. Moreover, the treatment would encourage better growth of the more desirable species and with the systematic culling of useless species, contribute to a gradual build-up in the value of the future stock.

In promoting the wider uses of these less-known species the obvious procedure would be to develop better and broader utilisation of the products, through up-to-date seasoning and preservation processes. With effective seasoning through dry kiln, for example, shrinkage, warping and shakes would be eliminated and infestation by fungi and insects prevented. Thus a much more effective uses are possible for the species than before. The same can also be said

of wood-preservation in prolonging the possible useful life of the timber. Experiences have proved that even perishable timber such as Yang (*Dipterocarpus alatus*) which can last as sleepers for only a few years untreated, could serve as long as 16 years when preservation treated before use. Obviously the more extensive adoption of these dry kilns and wood-preservation plants would contribute more towards better conservation and development of our forest resources.

In aligning our objective in developing the forest resources on that of Finland, there may be some argument that perhaps the analogy is too far fetched, since the forestry conditions between the two countries are too divergent. We propose therefore to come closer to adjacent areas in Malaya, where the forests are very similar to the South of Thailand. The Malayan timber export reached a peak amount of 174,627 M.³ in 1951. This was developed from a mere 52,416 M.³ in 1948. Now Malayan forest area is only 30 per cent that of Thailand. Our record export of other woods was only 61,979 M.³ in 1949 prior to the export ban of other wood timbers. After the ban the export was reduced of course to a mere trickle and now in 1954 after the ban was lifted we could only build up the export volume to 31,490 M.³ Of course we were to augment this volume considerably in 1955 and in 1956.

But we could and should speedily equal the record volume of Malayan export (174,627 M.³) some day very soon. And based on Malayan forest area as compared to our forests it would not at all be too far-fetched to predict that we could augment this possible export to our legitimate proportion, that is 582,090 M.³ By then we would be very near to the Finland target indeed, which proves conclusively that it would not at all be too far-fetched to increase the productivity of our forests to equal the current achievement of Finland, the country that so spectacularly survived through her forest resources.

This is one aspect in the possibility of developing our forest resources that the writer begs to present on this memorable occasion of publication of the special number of the Siam Society's journal.

