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**OPTIMALISASI PRODUKSI DAN PEMASARAN  
KARET ALAM INDONESIA  
DALAM DINAMIKA STRUKTUR INDUSTRI  
KARET DUNIA**

Oleh

**DEDDY SALEH**



**FAKULTAS PASCA SARJANA  
INSTITUT PERTANIAN BOGOR  
B O G O R  
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## SUMMARY

**DEDDY SALEH.** Optimizing of Production and Marketing of Indonesian Natural Rubber in the Dynamics of the Structure of the World Rubber Industry. (Under the guidance of H.AM. SAEFUDDIN, as chairman, SUHADI MANGKUSUWONDO, BUNGARAN SARAGIH, FAISAL KASRYNO, and ACHMAD SURYANA, as members).

With the background of Indonesia being the main producer of natural rubber, with the majority of their production taking the form of TSR (Technically Specified Rubber) which is mostly marketed in USA, whereas on the international market there is likely to be a shift in the demand due to the change in the structure of its finished products industry, this research is aimed at finding out what adjustments are required by the production and marketing sectors of Indonesian rubber such changes.

The review of primary and secondary data which we succeeded to collect was, at the first stage conducted by the application of the market share analysis which is based on the 'Nerlovian partial adjustment model'. The parameters which, presumably, affect the export share of TSR are tested with the F-test and the t-test. Whereas in the attempt to find the optimal pattern of the structure of production and marketing of the Indonesian natural rubber, the Linear Programming Model is applied by using various activities and constraints which are likely to occur in such attempt.



The result of the review with the application of the market share analysis shows that the modifiers of the ratio of the price of TSR to the price of conventional rubber at some markets has, statistically, had a real effect on the TSR share of Indonesia, Malaysia, and Thailand. The coefficient of the ratio of the price which has a very real and positive effect indicates, that if the ratio of the price of such natural rubber increases, the share of TSR will also increase, *vice versa*.

The real and negative effects of the development of radialization on the share of Indonesian TSR which differs from the real and positive effect on the share of Malaysian TSR is one of the indications that, despite the constant development of radialization in automotive tyres, the production of TSR can still be increased, provided that such TSR product is of high quality and suitable to the technology which is applied in the radial tyres industry. The increase in the share of Malaysian TSR which is in line with such radialization process indicates, that in spite of the materials of a good quality which are required by the radial tyres industry, the various conditions required by such industry can still be met the Malaysian TSR the quality of which is indeed good.

The existing balance in marketing and the various types of quality of the rubber which are produced by Malaysia have caused their structure of exports to be better and responsive to the changes in the world market.

The better quality of Malaysian TSR compared to Indonesian TSR is due to their better production pattern of "bokar" (dried rubber : slab, scraps, crepe, etc.). This has enabled the high flexibility in the production of a better quality of raw rubber, so that the average price which they receive from their rubber exports is always higher than the average price received price by Indonesia.

Therefore Indonesia is to improve their role if they are to improve the structure of their raw materials production and exports or, by increasing the quality of TSR which they export.

The increase in the production output of "bokar" is more optimal if the extension of area is combined with the increase of productivity of the smallholders estate which applies project patterns such as PPKR (SRDP) and PIR. Rejuvenation of smallholders estates cannot be conducted expeditiously, in view of the various constraints which are likely to be encountered, such as monocultural nature of the rubber farmers, in general.

Region with relatively state estate or private estate areas have a more flexible production pattern of "bokar", in the sense that they can rapidly anticipate any change in the demand for a type of raw material so that the raw material which is produced can immediately be adjusted to such demand. The relatively interesting price and the flexibility in production have resulted in the majority of "bokar" which are produced at such regions to be able to be processed into

conventional rubber, and the rest is produced as concentrated latex.

In order to support the optimal pattern of the raw material industry which is more dominated by conventional rubber, the conversion from the TSR processing industry to the conventional rubber industry may be conducted in stages, with raw material from the smallholders estate which apply the project pattern or which originate from the recently opened areas. For the purpose it is necessary to relocate the plant from an area which is near the city or the port to an area which is close to the centers of such smallholders estates. In order to encourage the participants of such project to produce "bokar" which are suitable for the conventional rubber processing industry, it is necessary to improve the payment system.

Any alteration to the structure of production of "bokar" and rubber raw material will, simultaneously, change the structure of their marketing. For this purpose it is necessary to probe and to approach from an early stage, which markets do indeed need the high quality raw material such as conventional rubber and TSR with good "bokar" which Indonesia is able to produce in stages. If the advanced industrial countries have a tendency to consume good quality rubber, TSR which is still produces with bad quality "bokar" from the smallholders estates which find it difficult to change their production pattern, can be marketed to the developing countries and to East Europe, being the new markets for Indonesian rubber.

If the increased volume of surplus exports can cause a decline in the price on the international market which will, in fact, decrease the foreign exchange revenue, the optimal change in the structure of Indonesia's rubber exports will increase the foreign exchange revenue on condition that such change must conform with the demand of the market.

The relatively small role of rubber products in the national economy will increase if it is supported by the establishment of an investment climate which is attractive to the investors. At an early stage we can see that the development of the increasing demand for finished rubber products, domestically as well as abroad, has been anticipated by the increase in production and exports of Indonesian finished rubber products, recently.

Apparently no attempts have been made thus far to overcome the problems in the Indonesian rubber sector by coordinating it properly. Hence the problems which already occurred some time ago regarding the quality of "bokar", have not been completely solved. Communications among the relevant parties and the parties concerned requires some sort of place where these parties can more freely propose their views/opinion.

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**Disertasi disusun  
sebagai salah satu syarat untuk memperoleh gelar  
Doktor  
pada**

**FAKULTAS PASCA SARJANA  
INSTITUT PERTANIAN BOGOR  
1991**

**Judul : Optimalisasi Produksi dan Pemasaran Karet Alam Indonesia Dalam  
Dinamika Struktur Industri Karet Dunia**

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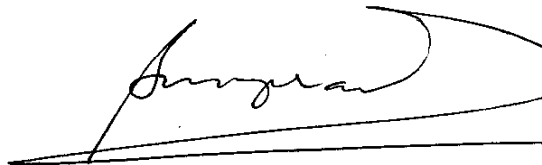
**Menyetujui  
1. Komisi Pembimbing**



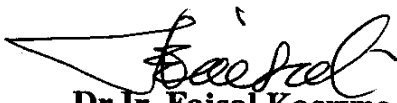
**Dr.Ir. H.A.M. Saefuddin**  
**Ketua**



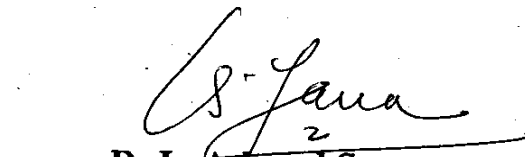
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**Tanggal Lulus : 06 JUL 1991**



## RIWAYAT HIDUP

Penulis yang dilahirkan di Kuningan, Jawa Barat pada tanggal 24 November 1952, adalah putra keempat dari Ibu H. Entin Mubinatirin dan Ayah H. Udin Mauluddin.

Lulus dari Sekolah Dasar tahun 1964, Sekolah Menengah Pertama tahun 1967, dan Sekolah Menengah Atas tahun 1970, yang semuanya berada di Kuningan.

Gelar Sarjana Pertanian diperoleh dari Fakultas Pertanian Universitas Sriwijaya, Palembang pada tahun 1978 dengan bidang keahlian Ekonomi Pertanian.

Sejak lulus dari Fakultas Pertanian Universitas Sriwijaya, bekerja di Kantor Wilayah Perdagangan Propinsi Sumatera Selatan dan menjadi Dosen Luar Biasa pada Fakultas Pertanian Universitas Sriwijaya untuk mata ajaran Ilmu Ekonomi Makro.

Pada tahun 1981, mendapat tugas untuk mengikuti Kursus jangka panjang Program Perencanaan Nasional (PPN) selama 9 (sembilan) bulan pada Lembaga Penyelidikan Ekonomi dan Masyarakat (LPEM) Fakultas Ekonomi Universitas Indonesia di Jakarta.

Mulai tahun 1982, mendapat kesempatan untuk mengikuti program pendidikan S2 pada Fakultas Pasca Sarjana Institut Pertanian Bogor (FPS-IPB) dengan bidang keahlian Ekonomi Pertanian. Karena terpenuhinya persyaratan Indeks Prestasi maka tahun 1983 penulis mendapat kesempatan untuk langsung mengikuti program pendidikan S3 di tempat yang sama.

Sejak tahun 1984, bekerja di Pusat Penelitian dan Pengembangan Perdagangan Luar Negeri, Departemen Perdagangan Jakarta, dan beberapa kali menjadi Dosen Luar Biasa di Fakultas Pertanian-IPB serta Asisten Dosen di Fakultas Fasca Sarjana-IPB untuk mata ajaran Ilmu Ekonomi Makro dan Ilmu Ekonomi Mikro. Sejak tahun 1985, menjadi Dosen Luar Biasa di Fakultas Ekonomi Universitas Trisakti Jakarta, dan sejak tahun 1989 menjadi Koordinator Administratif serta Peneliti pada *Trade and Management Development Institute (TMDI)*.

Penulis menikah dengan Hanna Maria Magdalena pada tahun 1980 dan dikaruniai tiga orang putri dan satu orang putra, yaitu Paramita Soraya, Diana Siti Maulia, Intan Rachma Pascarani, dan Mohammad Yudha Ardiwinata.