1970 CONSULTATION UNDER ARTICLE XVIII:12(b) WITH INDONESIA

Background Paper for the Expanded Consultation

Addendum

Since the background paper for the expanded balance-of-payments consultation with Indonesia was issued, the Government of the Republic of Indonesia has made available to the secretariat additional information on the production of block rubber in Indonesia. This note should be read in the context of paragraphs 62 to 68 of the original background paper in BOP/106.

PRODUCTION OF BLOCK RUBBER IN INDONESIA

Introduction

Upgrading of natural rubber produced by Indonesia has always been of particular interest to, and endeavoured by, the Indonesian Government. Due to the political and economic conditions prevailing in previous years, the attempts in this direction had not been entirely successful.

In the meantime several natural rubber producing countries – Malaysia, Cambodia and Southern Africa – have pioneered and introduced new processing methods and product presentation to customers, meeting technical specifications in concurrence with the newest technical development. Block/crumb rubber processing has developed rapidly and achieved considerable progress in a short time span.

Though Indonesia has not yet applied this new type of processing on a significant scale, developments in this field are closely followed. Only at the beginning of 1968 was this new type of processing actively introduced in Indonesia, and in the meantime new advancements and progress have been achieved in this activity in other countries.
Various factors have caused and stimulated the development of block/crumb rubber production in Indonesia, i.e.:

(a) a favourable change in the political and economic climate in Indonesia for the implementation of development schemes;

(b) embarkation on the five-year development plan, which is based on putting stress on modernization of agriculture and development of agricultural processing industries;

(c) establishment of a special working committee on crumb rubber with the task to plan, promote and develop the implementation of the crumb/block rubber processing industries and marketing of its produce;

(d) charging the Minister of Trade with the responsibility for the overall implementation of this scheme; and

(e) prohibition of exports of lower grades of rubber.

Up until now the following achievements have been registered:

A. Production

Smallholders produce has been the Government's primary target for achieving improvements and having the conventional type of processing changed into block rubber production.

The annual production of natural rubber in Indonesia is 775,000 tons, 250,000 tons coming from estates and 525,000 tons from smallholders. Of the 525,000 tons smallholders produce approximately 30 per cent comprises RSS V, blanket D types considered as very low grades. It was thus logical that the Indonesian Government put the upgrading of smallholders produce on the first priority list by introducing the block rubber type processing for the lower grades in order to achieve in the shortest possible time an increase of exportable higher grades and consequently an increase in foreign exchange earnings.

Though the target to be achieved is logical and justified, it implies considerable consequences and difficulties to be faced and overcome. Contrary to the experience of Malaysia, where the development of the block rubber processing began in the estates, which had advanced management and organization, and the bulk of whose production already consisted of higher grades, development in Indonesia has to start with the smallholders producing low-quality rubber and hampered by the lack of organization, infra-structural and logistical difficulties, and other related problems.
Though much can be learned from experience of other countries, development of crumb rubber production in Indonesia will ultimately have its own characteristics deriving from these specific conditions and problems.

Notwithstanding the difficulties it faced during the initial stages of its development and the risks involved, the Indonesian Government actively and positively endeavoured the promotion and implementation of block rubber production by offering considerable incentives. Alongside individual initiative and efforts by remillers, estate and smoke-house owners, the Indonesian Government actively promoted this block/crumb rubber production by providing long-term credit facilities for the procurement of twenty units of block rubber factories as turnkey projects, ten units with a capacity of 300 tons a month each and ten units of 500 tons monthly capacity.

All the twenty units will be allocated in different rubber producing areas and their construction will be completed in 1970. Up to the end of 1969, forty-three permits have been granted for the construction of block rubber factories with a total capacity of 280,000 tons annually, and will be extended with twenty more grants in the near future.

In the meantime several of the bigger estates are planning a conversion to block/crumb rubber processing. In 1969 several factories have commenced production or started their trial production. It is estimated that total production in 1969 amounted to 10,000 tons and for 1970 it is further estimated that total production will reach 150,000 tons.

B. Technical specifications

In view of the new market developments, the Indonesian Government has issued standards concerning technical specifications for block rubber called and presented in the world market as Standard Indonesian Rubber (SIR).

Basic specifications for the Standard Indonesian Rubber are as follows:

(i) Standard Indonesian Rubber is technically specified block natural rubber from any region within the territory of the Republic of Indonesia.

(ii) Standard Indonesian Rubber is marketed and packed in compressed block form of 75 lb. each with the following measurements: 28 x 14 x 6.5 ins. It is wrapped in polythene bags of 0.03 mm. thickness, melting point below 108°C, specific gravity of 0.92 and free of any coating. Packing can be done in individual four-ply kraft carton packs or in pallets of either ½ or 1 ton unit load.

(iii) Standard Indonesian Rubber gradings are based on technical specifications, not on the conventional visual standard as given in the green books of the International Standards of Quality Packing for Natural Rubber.
(iv) Standard Indonesian Rubber specifications for the standard gradings are as follows:

<table>
<thead>
<tr>
<th></th>
<th>SIR 5</th>
<th>SIR 20</th>
<th>SIR 25</th>
<th>SIR 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dirt content % maximum</td>
<td>0.05</td>
<td>0.20</td>
<td>0.35</td>
<td>0.50</td>
</tr>
<tr>
<td>Ash content % maximum</td>
<td>0.50</td>
<td>0.75</td>
<td>1.0</td>
<td>1.25</td>
</tr>
<tr>
<td>Volatile matter % maximum</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

All rubber marked under the SIR scheme has to bear additional Plasticity Retention Index (PRI) symbols, as follows:

- H - for PRI of 80 up
- N - for PRI of 60-79
- S - for PRI of 30-59

Rubber with a PRI value lower than 30 is not admitted to Standard Indonesian Rubber (SIR).

(v) Colour does not form part of the technical specifications, although light coloured rubber (with a Lovibond colour index of not less than 5.5) graded as SIR 5 can carry the SIR 5L mark.

(vi) Any producer of SIR is required to register with the Department of Trade and code for each producer and each factory will be issued.

(vii) Each producer must submit samples of processed block/crumb rubber to the Research Institute for Estate Crops in Bogor or Medan, according to their regulations in order to obtain the gradings of their produce.

(viii) Every export of SIR will have to be accompanied with quality certificates issued by either one of the above-mentioned research institutes.

(ix) Every wrapping of SIR block rubber has to carry the SIR symbols according to Department of Trade approved specimen.

(x) Export of block rubber not meeting the SIR standards is prohibited.

Following are additional stipulations relating to the above-mentioned basic standard:
(i) SIR has only one standard measurement and weight, i.e., measurement of 28 x 14 x 6.5 ins. and weight of 75 lb. From the outset, for apparent practical and marketing reasons, a uniformity of measurements are in concurrence with synthetic rubbers, while weight of 75 lb. gives 30 bales in 1 ton until load.

(ii) Although there is a strong tendency of having a limit of standard block rubber gradings, one cannot overlook the stark reality of wide quality difference of available and existing raw material. Especially for Indonesia, with its slabs of which conventional processing method will only produce blankets and browns, and the wide variety and quality differences produced by different regions, especially with regard to the Dry Rubber Content with a variance of 40-50, together with the difference in the intensity of the cleaning process by the block rubber processing machinery, and the considered wide gap between the SIR 20 and SIR 50 specifications, it was therefore considered imperative to have an intermediary grade of SIR 35 with dirt content of maximum 0.35 per cent. Most block rubber produced from slabs will fall into the SIR 35 or SIR 20 grade range.

(iii) Specifications on manganese and copper content have been left out and as a consequent replacement the technical specification on PRI has been included. Mn and Cu content for a given estate or region can be analyzed by the Research Institute for Estate Crops in Bogor and Medan, the two main testing stations and also by the testing sub-stations in different regions. To avoid the mixing of block/crumb rubber the producer has been forewarned not to mix block rubber with skim rubber, and as a consequence nitrogen content has been specified at a maximum of 0.7 per cent. Considering that production of concentrated latex is limited to several big producers only (Goodyear, Uniroyal, PNP), control of nitrogen content can be sufficiently executed.

(iv) Though in the technical specifications volatile matter content is limited to a maximum of 1 per cent, a lowering to 0.5-0.6 per cent is recommended for every producer.

C. Quality control and testing procedure

The Indonesian Government pays full attention to the problem of quality control of block/crumb rubber especially when the raw material comes from the smallholders.

The main problem faced by the block rubber producer is to obtain a qualitatively constant and uniform product, processed from varied raw material coming from different resources.
The problem of inadequate logistics and communication facilities between different parts of Indonesia impose the necessity of establishing a chain of efficient and effective control systems.

Initially two main testing stations located in Bogor and Medan have been established, which guide and control the sub-stations and factory laboratories, and endorse testing laboratories which are then internationally recognized to issue their own certificates. Eight sub-stations will be established in the main producing areas such as in: Palembang, Djambi, Pontianak, Badiermasin etc. In 1969, two sub-stations were installed in Pontianak and Djambi, the remaining will be completed in 1970. Sub-stations will have the responsibility of issuing certificates of quality on behalf of the main testing station. Finally, each factory with the capacity of 300 to 1,200 tons monthly will be recommended to have its own testing laboratory, enabling them to conduct their own analysis on dirt content, ash, volatile matter and PRI content. The possession of a testing laboratory by the factory will enable each producer to constantly watch and analyze the quality of his product, and will enable him to form a basis for direct co-operation and relation with purchasers and consumers abroad.

Conclusion

Reports from producers already in operation indicate that the quality achieved has been considered satisfactory and the rubber was found acceptable in the international market. Clearly envisaging predictable difficulties ensuing from the considerable amount of block rubber produced within a relatively short time, steps have been taken to implement effective control systems and smooth marketing.

Block rubber processing will form only a part of the measures to be undertaken by the Indonesian Government in the coming years. Upgrading by way of this new type of processing will immediately be followed by upgrading of the producers of raw material viz. the smallholders themselves.

Guidance and procurement of needed utensils of good quality will make it possible for the smallholders to produce raw material of far better quality in the near future.

Rejuvenation of smallholders' plantations will be intensively undertaken, with the help of funds acquired from the cess levies already put into force.