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Expert Group Meeting on Future Trends in,
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Synthetic Rubber

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SOME CONSIDERATIONS CONCERNING
THE SMALLHOLDER'S ROLE IN NR PRODUCTION 1/

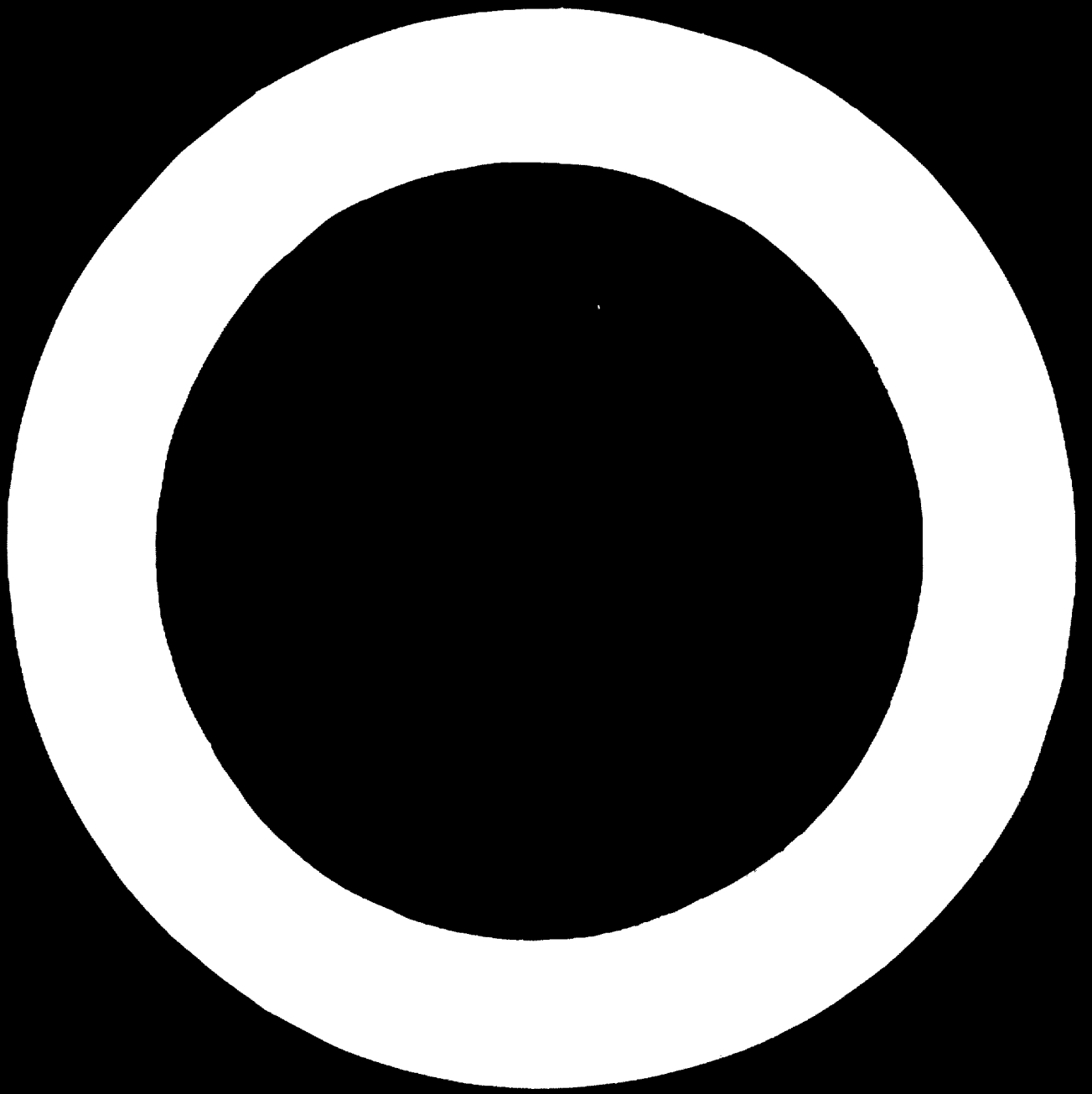
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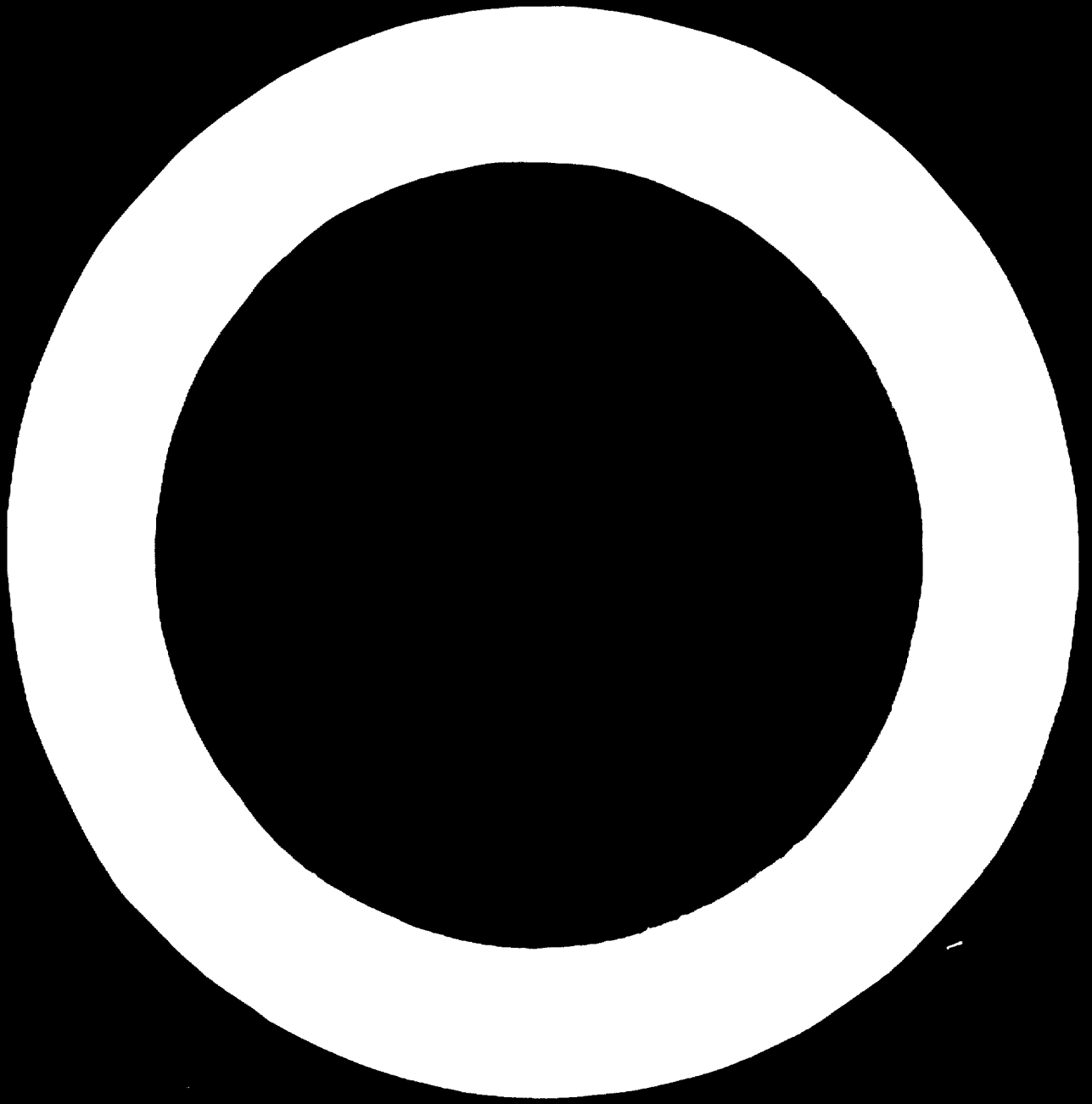
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We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.



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I. SUMMARY

1. A survey is given of the smallholder's contribution to the national economy in some NR producing countries, particularly Malaysia, Indonesia and Liberia.
2. Problems facing the smallholders are described and means to improve the situation are indicated.

II. INTRODUCTION

3. There is hardly any need to establish the fact that agriculture is the largest and in some respect the most fundamental sector of the world economy and in particular of the economies of developing countries, in many of which 70 or more percent of the population find their subsistence in the agricultural sector.
4. In this sector, natural rubber plays a dominant role in a number of developing countries, both in terms of rural employment and in terms of export earnings. This becomes very evident when we take the two main producers, Malaysia and Indonesia, as an example.
5. In 1970, Malaysia produced 1,275,000 tons of rubber with over 600,000 tons or almost 50% coming from smallholdings. The total export value of Malaysian merchandise amounted to \$ 1700 mill. with NR as the most important commodity with a value of \$ 575 mill. or 34% of the total. The estimated rubber production in Indonesia in 1970 amounted to 780,000 tons, two-thirds of which came from smallholdings. The share of NR in the total export value of Indonesian products (except oil) amounts to about 30%.
6. A similar situation is found in countries with a smaller rubber production, such as Nigeria and Liberia. In Thailand, an annual production of 280,000 tons almost entirely comes from smallholdings.
7. These few figures make it clear that smallholders rubber is of great economic and social importance in the lives of millions of people. Considering the many problems smallholders are still faced with, this also justifies the point of view that serious attention should be paid to these problems by the rubber plantation industry

itself, Governments and International Agencies with activities related to these problems.

8. In attempting to analyse the essential features of the situation one is struck by the fact that circumstances under which the rubber smallholder operates in different countries vary widely. Differences in political regime, social structure, general economic level of development and national technical assistance possibilities are encountered and exert their influence. Consequently, the approach to their problems should be based on awareness and knowledge of these factors and whenever external technical assistance would be desirable or necessary it should, in my opinion, be given within the context of a wider development plan, the plan itself being incorporated in a national economy development scheme.

III. MALAYSIA

9. Turning back to the situation in some specific NR producing countries, first of all a few aspects may be mentioned of the smallholders rubber industry in Malaysia where in recent years, under the guidance and leadership of the Rubber Research Institute in Kuala Lumpur and forcefully supported by Government, remarkable progress has been made in solving the problems facing this industry.

10. On the one million hectares of Malaysian smallholdings calculated to support more than one million men, women and children, there is a variety of types of ownership. Two-thirds consist of individual holdings which have belonged to a private individual or family ever since they were originally carved out of the jungle. A further 100,000 ha have been subdivided from estates which have been broken up.

11. Various land development schemes are a significant feature of the smallholding scene. All receive public finance, though the extent of assistance ranges all the way from payment of all development expenses plus provision of management to remittance of land fees only.

12. Perhaps the most advanced are the schemes of the Federal Land Development Authority (FLDA), which is the Malaysian Government's

main agency set up to establish landless rural people on economically viable farms provided with essential public utilities, social amenities and proper management to enable family incomes to be raised from the inadequate rural subsistence rate these people were living on in the past. In practice, increases in family income of up to 200% have been realized.

13. The FLDA, established in 1957, bears witness to the importance that the Malaysian Government attaches to the planned development of new areas for settlement and it is the declared objective of this Government to encourage rural people to own economically viable smallholdings in the FLDA schemes.

14. A substantial acreage in these schemes is devoted to rubber, though other crops (especially oil palm) are also encouraged. FLDA schemes range in size from 1500 to 3000 ha, taking in 300 to 600 families. Each scheme has a central village, main crop and subsidiary crop areas. Experience has shown that to succeed selection of the right type of settlers is vital, therefore, applicants must satisfy a number of criteria. How successful these operations have been is, among others, shown by the fact that the number of families that has been settled by FLDA amounts to more than 20,000.

15. Another important feature of the smallholding scene is the growth of co-operative schemes for processing the crop into a marketable commodity. The Smallholders' Advisory Service of the RRIM has been active for several years in assisting in the development of such schemes of which there are now several hundreds in operation.

16. Providing smallholders with land and good planting material is not enough, their product has to be sold on the world's markets, therefore, it has to be transformed from an agricultural product into an industrial raw material; both the quality of their rubber and the manner of its selling have to be such that the smallholder gets the best possible return.

17. For this purpose, first small group processing centres and, more recently, large central processing facilities have been estab-

lished. The latter, originated by the RRIM, are considered one of the most useful ways of investing for rural development. A particularly attractive feature is that they offer smallholders all the advantages of modern processing methods, enabling them to upgrade the quality of their product, considerably improve its presentation and sell it as standard rubber under the SMR scheme.

18. Thus far, there are five central processing factories for smallholders, set up by RRIM. The second Malaysian five-year plan 1971-1975 provides for about 40 new central factories to be built, many of which will be operated by the Malaysian Rubber Development Corporation. Together they will cater for about 400,000 tons of rubber or almost one-third of present-day production. By upgrading quality and reducing marketing margins they will enhance smallholder income and will also serve the objective of dispersing product processing plants to less developed areas.

19. Summarizing these brief remarks about the situation in Malaysia, it seems clear that technological advances in rubber processing made during recent years can be fully taken advantage of, provided all preceding necessary conditions are being fulfilled.

IV. INDONESIA

20. In Indonesia, although this country is still the world's second largest producer of NR, production has been stagnant for a number of years and estates as well as smallholders are still faced with many problems.

21. On estates the rate of replanting - with a majority of trees having an age far above their economic lifespan - has been very low, whereas on smallholdings - in the same situation - it has been practically nil.

22. Obsolete equipment in factories, lack of maintenance, inadequate economic management and insufficient encouragement from official quarters have all contributed to the fact that the Indonesian rubber industry still has a long way to go on the road to complete rehabilitation.

23. Fortunately, there are at present many indications that the turning point has been reached. In the long-range economic planning of the present Government it is getting more and more attention and with the financial assistance of foreign donors a number of rehabilitation projects are being executed.
24. It goes without saying that in the implementation of present and future rehabilitation and development plans a good deal of technical expertise would be required. This would be available under bilateral or multi-lateral aid programmes.
25. Problems in the smallholders' section are partly different and partly the same as on estates. There is no doubt in my mind that they are worth solving since smallholders rubber is of extreme importance to the Indonesian economy. In 1970, exports were estimated at 550,000 tons or 70% of total export with a value of about \$ 140 mill. comprising about 30% of the value of Indonesia's agricultural exports. Although no reliable statistical data are available, it is estimated that the total area planted to smallholders rubber amounts to approximately 1,400,000 ha.
26. The most important area is South Sumatra with over 400,000 ha; others are: North Sumatra, Riau, Djambi, West and East Kalimantan.
27. Smallholders rubber is, in general, of very poor quality, not completely processed by the smallholder himself but, through a complicated system of buying and selling by middlemen, eventually upgraded by resellers and made into an exportable product.
28. The highly unsatisfactory age structure of the plantings (probably over 70% of smallholders rubber is more than 35 years old) makes it unlikely that any significant and sustained increase in smallholders production will come within the next decade. Even if a high rate of replanting could be introduced as of now, it would be 7 or more years before the benefits would be felt.
29. Moreover, a successful replanting programme would not be possible unless other constraints on production are first removed. These constraints relate, in particular, to prices. Few smallholders produce a product ready for transport. In Sumatra they generally pro-

duce slabs, with an approximate DRC of 40-50% and usually highly contaminated with dirt, stones, sticks, etc. This slab is purchased by middlemen either acting as agents of remillers or selling to remillers. As remilling centres are not located in the production areas and the smallholder has no means of transportation, there is no other way for him to dispose of his product.

30. Another factor of importance in the Indonesian economy is the substantial amount of smallholders rubber that is being exported to Singapore. Official statistical data indicate that during 1968, 1969 and 1970 not less than 67, 73 and 76%, respectively, of the total export was shipped to Singapore, in other words, was exported as low-grade rubber - at low prices - to a destination outside the country for re-processing and upgrading. It is obvious what influence it would have on export earnings if this could be done within national boundaries.

31. Other factors also cloud the issue, in particular those concerning the profitability of smallholder rubber production vis-a-vis other agricultural activities. If serious efforts are going to be made to improve the smallholder's lot, these should be preceded by an analysis of the major problems which confront them by making an in-depth study of the situation, including the agro-economic system that prevails.

32. The present situation indicates that any successful programme would involve the improvement of infrastructure and the provision of modern processing of smallholder's latex and slab into a high quality export product.

33. Although this, with a few exceptions, has not yet been accomplished, serious attempts are now being made to improve the quality of smallholders rubber by better processing, in other words, by the establishment of block rubber factories. While in 1968 not a single one was yet in operation, more than 40 have been constructed so far. About half of them were introduced through bilateral aid channels from England and France while others were established by private means.

34. Obviously, much more will be needed to modernize the smallholder section of the Indonesian rubber industry; in this the United Nations and its Specialized Agencies could be of valuable assistance by providing the necessary expertise.

V. LIBERIA

35. As remarked before, the smallholders scene shows large differences in different countries. To further illustrate this fact I would draw your attention to the circumstances under which the Liberian smallholder operates. Although Liberia is only a minor producer of NR (about 75,000 tons annually or 2.5% of world production) it is the largest producer in Africa and the second largest producer of latex concentrate after Malaysia with about 14% of world production.

36. For the country itself NR is extremely important since it is practically the only agricultural commodity from which export earnings are derived; in 1969, total value of exported agricultural products amounted to \$ 37 mill. of which \$ 30 mill. or 80% came from rubber.

37. Up to the early fifties, state income was for 70-80% dependent upon rubber. With the advent of large-scale mining operations this percentage decreased considerably however, in the agricultural sector it is still the mainstay of the Liberian economy.

38. Ever since it was established as an independent country in 1847, the struggle for survival has been a hard one as no foundation was present on which to develop the country. This changed in 1926 when a large private enterprise in NR decided to make Liberia their base of operations. Within a few years tens of thousands of acres were carved out of the jungle and planted to rubber. By 1940, with only a temporary slowdown during the great depression, some 28,000 ha had been planted and 16,000 ha were by then of tapping age.

39. Today, the Firestone Plantation at Harbel consists of approximately 30,000 ha planted to high-yielding clonal material and one central factory with complete facilities for the production of RSS,

crsps, centrifuged latex, purified skim rubber and other block rubbers.

A second plantation, Cavalla, in the most eastern part of Liberia, covers about 6,000 ha and produces crsps as well as concentrate.

40. Against this background the development of the Liberian smallholders rubber industry should be considered.

From the beginning, the Firestone Plantations Company has carried on other activities not normally part of rubber estate operations. One of these activities has been the rubber growers assistance programme, designed to help Liberians grow rubber on their own farms. This programme was formally organized in 1943 and has ever since been the basis of the development of the smallholders industry.

41. First of all, ever-increasing quantities of planting material have been made available, seedlings if necessary but high-yielding clonal material as well if this could be handled to advantage. It is estimated that over the past thirty years more than 15,000,000 trees have been distributed; more recently, additional supplies have come from the Rubber Advisory Services, a Government agency.

42. Firestone provided not only free trees but also free technical services. This included farm surveys, drawing up of planting programmes, management plans, tree maps and tapping schedules. At request the farms would be periodically inspected and advice would be given on improved care of cultivation and tapping. As equipment and supplies were not obtainable, these were also provided, on credit terms.

43. Finally, the company processes and markets the Liberian farmer's product which is usually in the form of slabs but also, and in increasing quantities, as field latex for processing into concentrate. Each month, Firestone fixes a purchase price which is the average of the previous month's selling prices in New York. From this is deducted factory processing and transportation costs plus Liberian taxes. The rest of the proceeds of the sale is given in cash to the farmer within an hour after his rubber has been bought. This has been made possible by special laboratory arrangements for a rapid

determination of the DRC.

44. As a result of this programme, Liberian rubber farmers have been making sizable and growing incomes, far above the income from subsistence farming they had before. In fact, production increased so rapidly that Firestone was unable to handle it with existing facilities and had to design an entirely new process for handling, comminuting, drying and packing this rubber. This process, based on extrusion drying, is fully automated and capable of producing more than two tons of dry rubber per hour.

45. In the fifties and sixties, other rubber estates were established in other parts of the country, among which African Fruit, Goodrich, and Uniroyal and at least one of them has now started to handle part of the smallholders' rubber from their surrounding areas. In addition, a remilling operation has been set up by an americo-dutch company that purchases slab directly from farmers in their neighbourhood.

46. Despite all progress made, in this case through support by private enterprise, the level of operations on Liberian farms could still be improved considerably. Yields are still no more than perhaps 400 kg per ha as compared to more than 1000 kg per ha on estates. Primitive handling and transportation of latex and slab impairs quality and therefore lowers the price of their product.

47. Progress in this section of the Liberian economy seems likely to depend primarily on the development of entrepreneurial attitudes and interests on the part of the Liberians themselves, supported by Government and backed up by all whose aim it is to improve the living conditions of the rural population in this part of the third world. Here again, the U.N. and its Specialized Agencies could play their role.

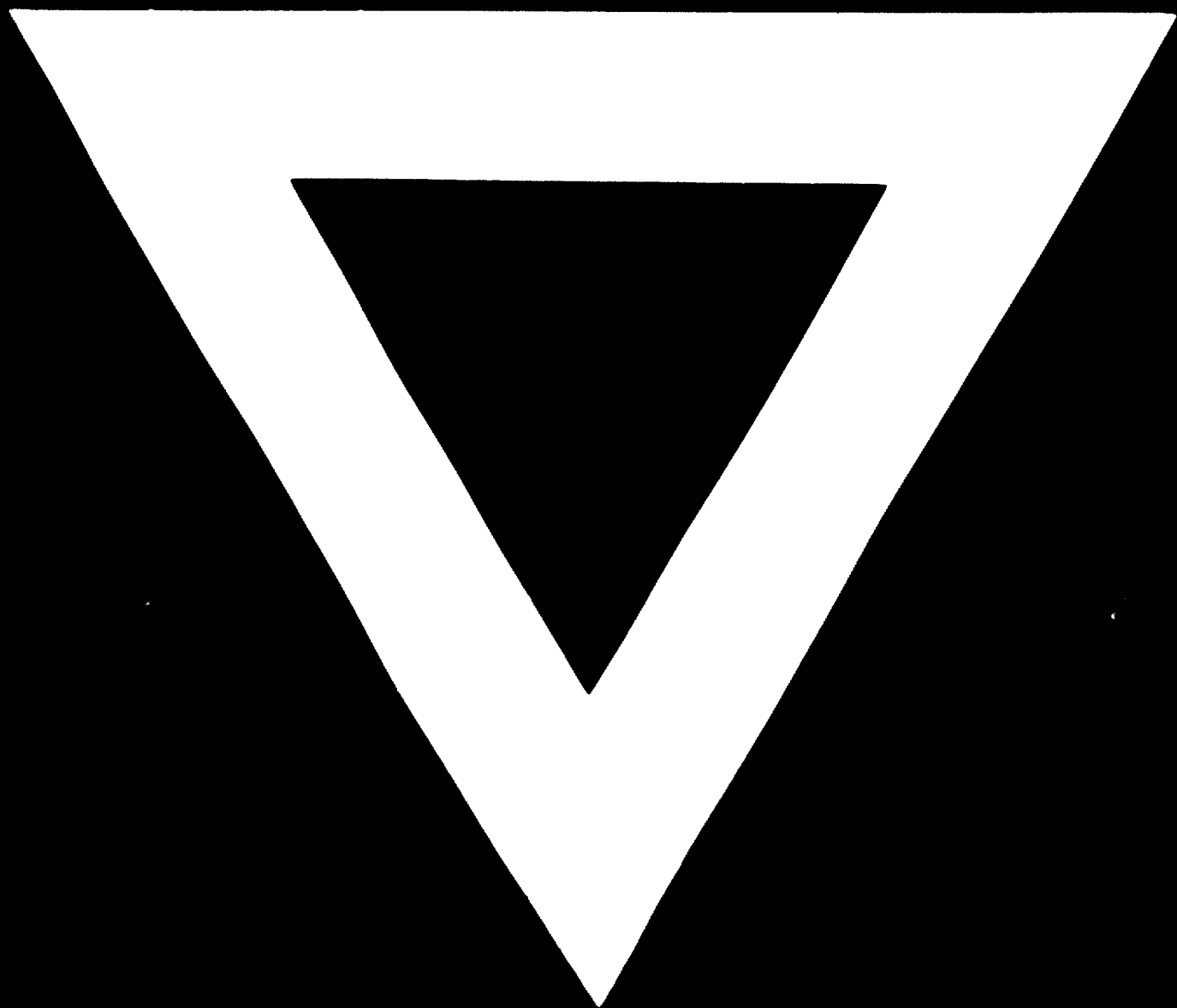
VI. CONCLUDING REMARKS

48. In a wider context, smallholder problems are part of the agricultural and economic problems of their country as a whole which in turn are linked to world economy and trade. I would there-

fore like to conclude my remarks by quoting a recent statement by the Director-General of FAO: "A world agricultural policy can be viewed only in the setting of a world economic and social policy. The essential pre-requisite of such a world setting is agreement amongst countries on a broad set of social and economic objectives and measures. It is becoming increasingly clear that a minimum consensus of this nature is essential if the rapidly expanding world population is to live together in harmony and meet the growing challenge of economic and social development".

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