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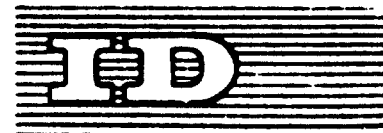
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ASIAN DEVELOPMENT BANK'S ASSISTANCE ACTIVITIES IN  
AGRICULTURAL DEVELOPMENT AND FERTILIZER INDUSTRY IN THE REGION<sup>1/</sup>

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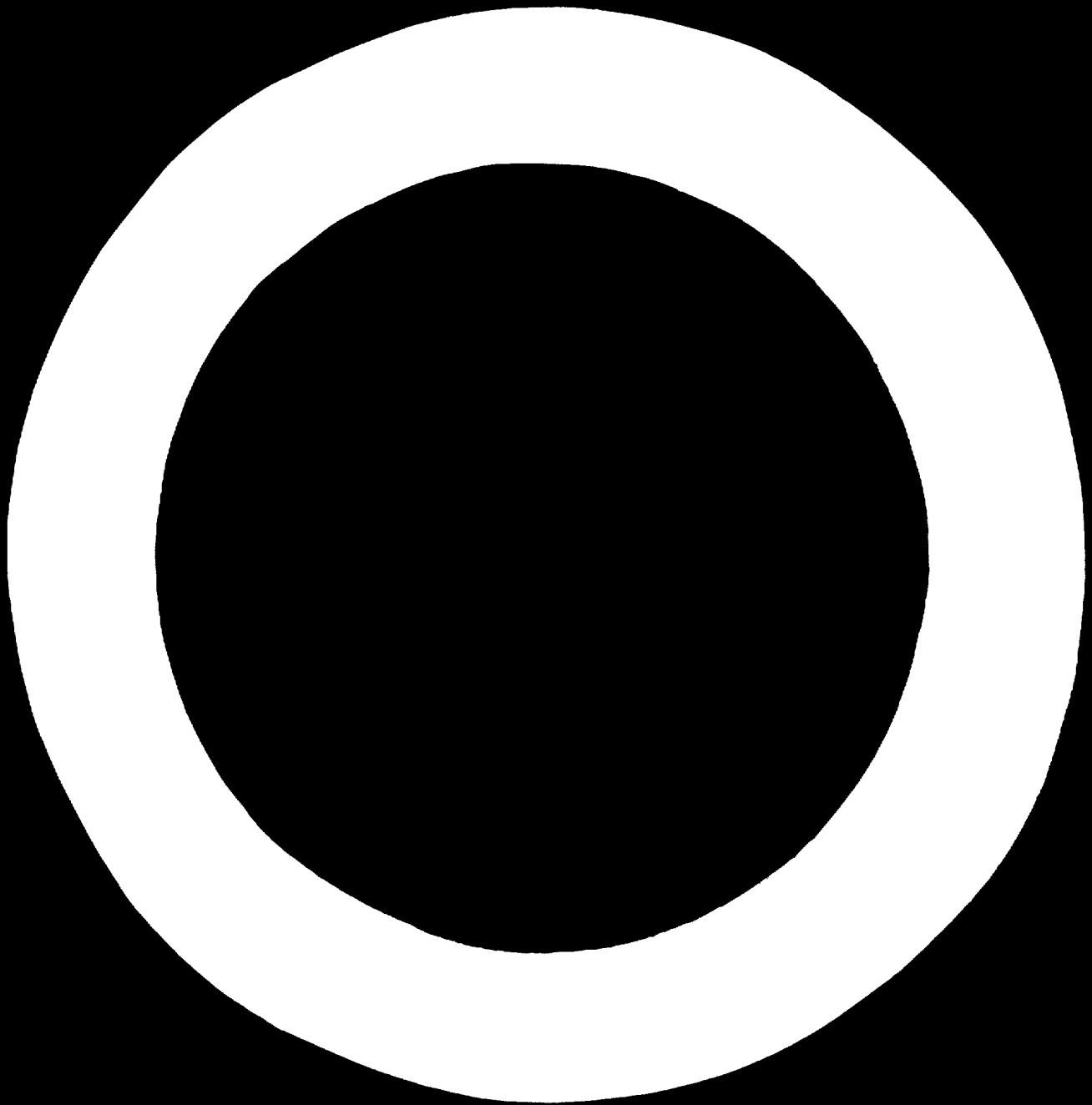
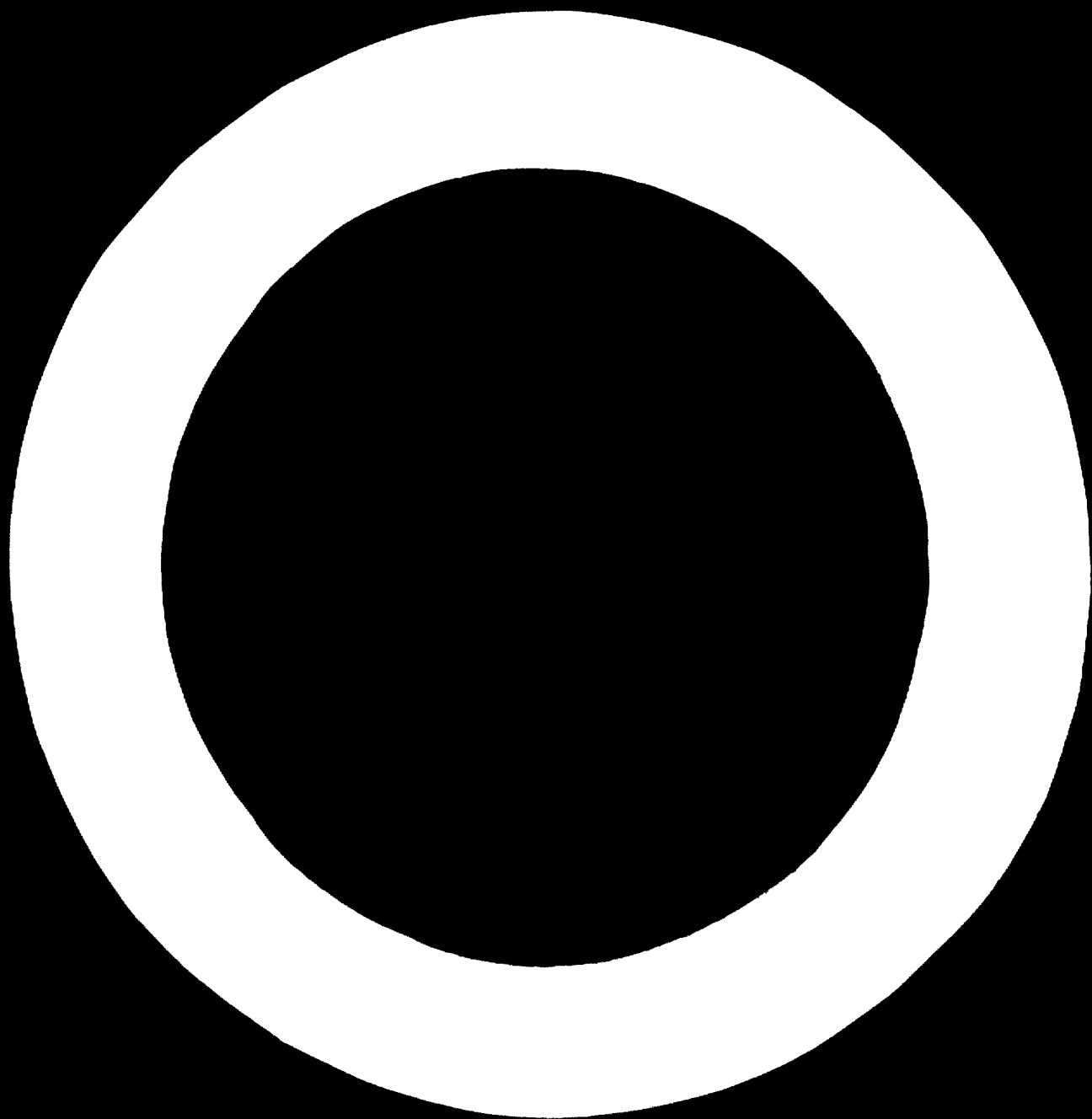


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I. Purpose and Functions of the Bank

1. As defined in its Charter, the Bank's fundamental purpose is to "foster economic growth and cooperation in the region of Asia and the Far East and to contribute to the acceleration of the process of economic development of the developing member countries in the region collectively and individually."
2. In order to perform such a catalytic role, the Bank uses inter alia the two main instruments as follows:
  - a. Providing conventional and concessional loans from its ordinary capital resources and its special fund resources, respectively, to bankable development projects in interested Regional Developing Member Countries (RDMC's).
  - b. Providing technical assistance to interested RDMC's in various forms (e.g. loan-oriented from including project formulation, preparation and implementation and follow-up activities; non-loan-oriented from including advisory operations in overall planning, training operations, assistance to research organisations.)

II. ADB's Promotional Activities in Agricultural Development

3. The Bank, which now enters its fifth year of operations, has been providing financial and technical assistance to several agricultural infrastructure projects (relating to irrigation expansion and rehabilitation; drainage; water supply, control and management), to foodgrain production projects, and to agricultural input industries.
4. As of 31 August 1971, the Bank's loan assistance from its hard-and soft loan windows amounted to US\$446 million worth of loans to 15 RDMC's. Of this total, agricultural loans for the development of irrigation facilities, natural resources and plantation crops accounts for US\$75.89 million (or 17 per cent of total).
5. On the other hand, the Bank's technical assistance to various RDMC's totaled \$6.71 million (as of April 1971) of which \$4.11 million (or 61.3 per cent) has been channeled to the development of agriculture in the region.
6. In order to strengthen its loan and technical assistance activities with and appropriate sense of perspective, purpose and priority the Bank has sponsored various economic studies designed to identify regional problem areas and development fields for which the Bank's assistance may be requested.
7. Such studies so far financed by the Bank are the Asian Agricultural Survey (completed in 1968), the Southeast Asia Economy in the 1970's (completed in 1970),

the Asian Regional Transport Survey (completed in 1971). In pursuit of the same objective, the Bank has sponsored the Regional Seminar on Agriculture (1969), The Regional Conference of National Development Banks (1969) and the Lawasia Credit and Security Research Project (1970) and has helped create an Asian Vegetable Research and Development Center. All these regional projects involved a financial support totalling \$1.75 million<sup>1/</sup> of which agriculture-promotion activities amounted to \$811,000 (or 46 per cent).

### III. ADB's Past and Current Assistance Activities in Fertilizer Development

8. Fertilizer is recognized to be one of the vital inputs for agriculture productivity and development.
9. According to the 1970 ECAFE Economic Survey, the recent breakthrough in rice and wheat cultivation in Asia has been based on the intensive applications of fertilizers and the widespread use of high-yielding varieties of cereals.
10. However, in relation to actual and potential fertilizer requirements of a predominantly agricultural region like Asia, the current levels of fertilizer consumption and production are still rather low. In 1969/1970, the total consumption of three main types of fertilizer (i.e. nitrogenous, phosphate, potash) in the ECAFE region amounted to 7.32 million tons, thus averaging only 22 kg. per hectare as compared to 158 kg/ha for Europe, 66 kg/ha for North and Central America and 33 kg/ha for Oceania in the same year<sup>2/</sup>. A series of well-known inhibitive factors now prevailing in the regions tends to check the fertilizer consumption growth (e.g. inadequate agricultural credit facilities for the farmers; lack of storage facilities for fertilizers in consumers areas; poor transportation facilities often driving fertilizer prices up at the expense of farmers operating in less accessible communities of the country).
11. The fertilizer production in the ADB region has always fallen short of its actual consumption requirements, accounting for 75 per cent of consumption in 1968/69 and 82 per cent in 1969/70. The production performance could have been improved<sup>3/</sup> if certain institutional and structural constraints to growth, as identified in the Asian Agricultural Survey, could be solved (e.g. relatively

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1/ This includes also the \$49,000 cost of financing the ADB Coconut Study to be completed in 1972.

2/ FAO, Monthly Bulletin of Agricultural Economics and Statistics, February 1971.



small size of most existing fertilizer plants; frequent failure to ensure timely delivery of imported spare parts and materials needed for operation and maintenance).

12. The effective demand for fertilizer in RDMC's may be enlarged through the efforts of developing various fertilizer-responsive crops (e.g. rice, tea, sugar cane and wheat). In respect of fertilizer demand promotion, the Bank's assistance to various irrigation and crop development projects may have made some direct and indirect contribution towards helping increase the fertilizer absorption capacity in many RDMC's. In fact the Bank has, since its inception, provided both financial and technical assistance to a number of agricultural product development projects e.g. tea for Ceylon; jute for Nepal, rubber and oil palm for Indonesia and wheat, sugar beet and cotton for Afghanistan. It has also financed several agricultural infrastructure development projects for Ceylon, Malaysia, the Philippines and Indonesia where adequate supplies and effective use of water input made possible by better irrigation facilities are expected to help expand and production of paddy, corn maize, groundnuts, etc.

13. In connection with the fertilizer production in the region, the Bank's development assistance is still very small. In fact the Bank has so far only joint-financed one fertilizer production project in Indonesia, namely the Pusri's Fertilizer Plant Expansion Project, in cooperation with IDA of the World Bank Group, USAID and Japan. The total cost of the project amounts to \$84.4 million; the Bank's contribution was \$10 million.

14. The construction of this plant which is the first of the two large nitrogenous fertilizer plants as envisaged in Indonesia's Five Year Plan (1969-1974) aims at the main following objectives.

a. Putting to profitable use a valuable asset, natural gas, which is abundantly available in Indonesia.

b. Increasing the annual capacity of the Pusri's existing urea plant from 100,000 to 486,000 tons so as to provide adequate supplies of locally manufactured fertilizers for implementation of the government's foodgrain self-sufficiency plan.

15. Recently the Government of Ceylon has approached the Bank for assistance to its urea plant project. This project is now under the Bank's consideration. The main purpose of this urea fertilizer plant project is to produce this fertilizer for domestic consumption needs.

IV. ADB's Possible Assistance Activities for Further Development of the Fertilizer Industry in the Region

16. Fully aware of the strategic role of fertilizers in fostering the growth of modern agriculture during the Green Revolution and in helping RLMC's achieve at least the 4 percent minimum annual target rate of agricultural growth during the Second Development Decade (i.e. 1970's), the Bank will maintain its keen interest in further assisting the development of the fertilizer industry from both demand and supply approaches and on a national as well as regional or sub-regional basis.

17. On the other hand, the Bank will continue to identify more and more bankable fertilizer projects in individual RLMC's for capital and/or technical assistance either on a single basis or jointly with other international or national lending institutions. On the other hand, the Bank may continue to explore the possibilities of assisting or co-assisting financially and/or technically any feasible regional/sub-regional fertilizer projects conducive to the interest of both producing and consuming RLMC's (in terms of substantial economies of scale, efficient use of available resources, supply of low-cost fertilizer nutrients, etc.) and of the ADB region as a whole (in terms of expansion of intra-regional trade; possible implementation of the fertilizer-crop barter scheme on a regional/sub-regional basis; etc.). In this connection, and as a follow-up activity to the Asian Agricultural Survey, the Bank has, since 1968, initiated a proposal for studies on a regional or sub-regional nitrogen fertilizer project among developing countries in the ADB region. And recently, Vietnam and the Khmer Republic have submitted a proposed feasibility survey of joint urea fertilizer project for approval by the Lower Mekong Basin Committee.

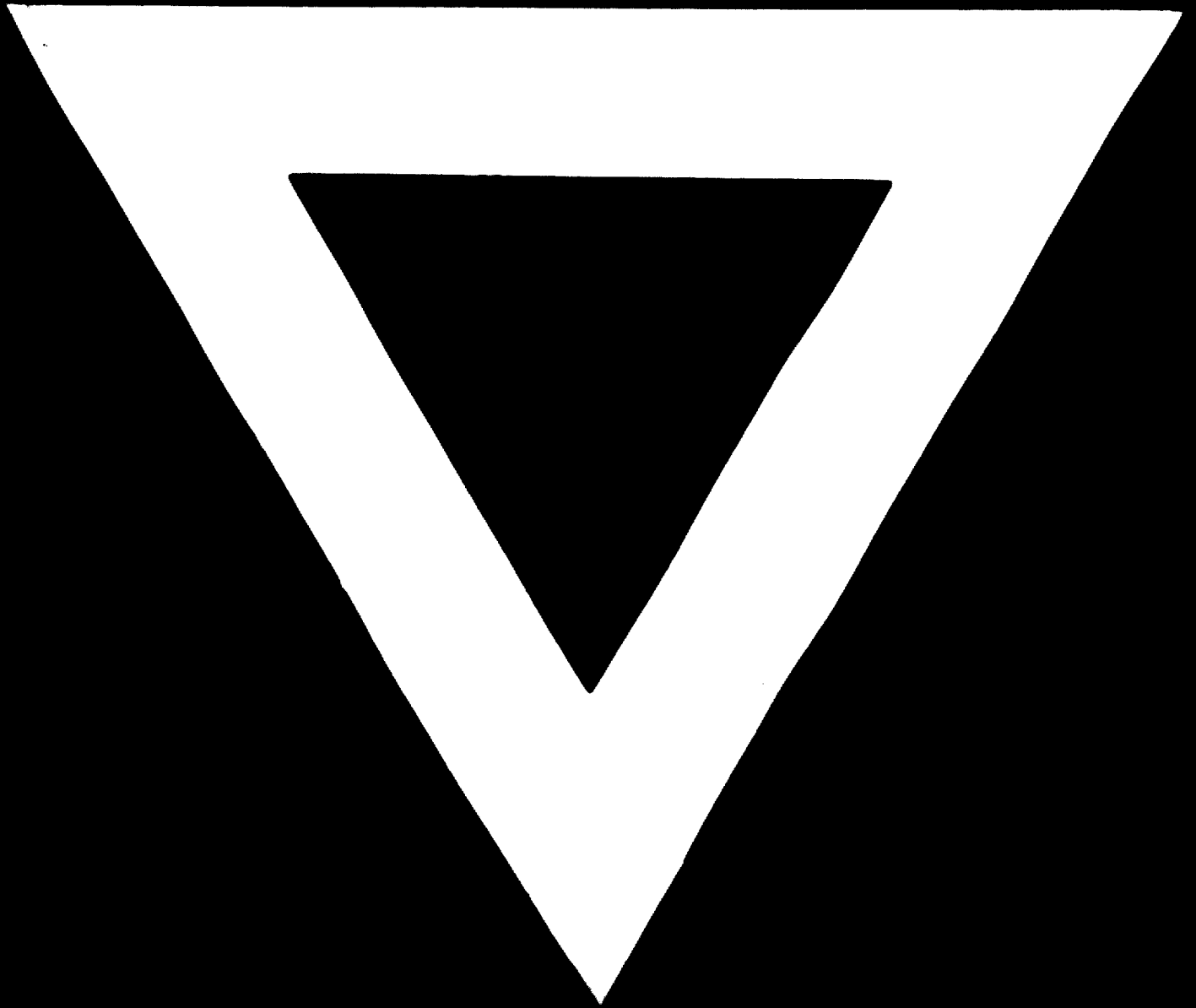
V. Summary

18. Fertilizer being one of the most crucial agricultural inputs for ensuring a steady progress of agriculture in the region, now stands prominently among the high-priority development projects most eligible for the Bank's assistance.

19. However, the present dimension of ADB's financial and technical assistance to the region's fertilizer industry is still rather modest in relation to the vast actual and potential needs in the region. Thus in the years to come the Bank may wish to do more for a further expansion of this industry on a national and regional/sub-regional basis.

20. In its assistance activities for fertilizer development in the region, the Bank has all along adopted an integrated development approach, paying attention not only to the manufacturing aspect of the fertilizer industry but also to the promotion of adequate steps and measures conducive to the most effective use of fertilizer nutrients. Fertilizer is one of several essential agricultural inputs which include water input, pesticides, fungicides, high-yielding seeds, agricultural machinery and tools like tractors, water pumps, etc. In financing various irrigation projects, the Bank has already helped promote the development of water input in many RDMC's. In the future, the Bank's integrated approach may suggest the possibility for the Bank to explore the avenue for possible assistance to any bankable projects in other agriculture input industries as suggested in the Asian Agricultural Survey.





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