

been approached. It seems certain that the targets will be achieved before the target date of 1960 and the UN agency sees no indications for a fall off of the present rate of world wide fertilizer expansion.

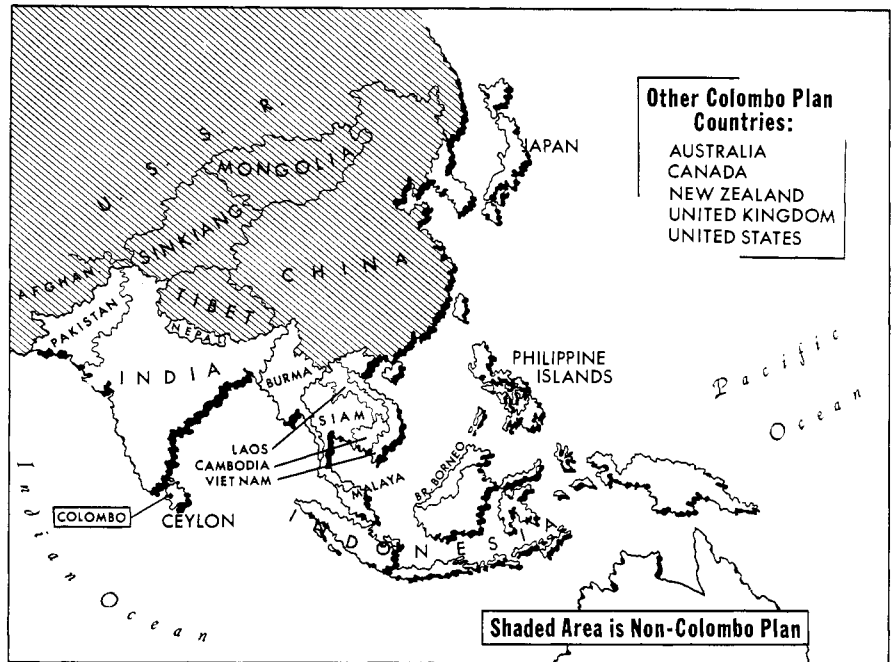
Colombo Plan

Top priority and 44% of public expenditure going for agricultural improvement. Look to U. S. for more capital

THE COLOMBO PLAN, designed to give encouragement and support to countries of South and Southeast Asia in their efforts to raise the living standards of their people, shows some impressive records of improved agricultural and industrial production. Particularly important are new plants for fertilizers and pesticides and the increases in food grain yields. Even so, private enterprise lacks local capital, and self-support is still unattainable.

Any increased American economic aid to Asia is expected to be closely integrated with the existing Colombo Plan organization. Sustained improvement in the Asian countries is contingent in a large degree upon the size of capital grants forthcoming from Washington.

Today there are 19 participants in the Colombo Plan, including all non-Communist Asian countries except two. These two, Korea and Formosa, have been principal recipients of American-Asian aid to date and will certainly come



in for full consideration in any new program.

Colombo Plan countries spent over \$1550 million on development in the public sector in 1953-54. This was an increase of 27% over the previous year's figure. Expenditures for the current year are expected to be up by 31%. Emphasis is on direct efforts to boost food and agricultural production. Over 44% of public expenditure in the area is now going for agricultural improvement. Industrial development, which in some countries includes the construction of fertilizer and pesticides plants, accounts for 10% of the public expenditure.

Food Supplies Better

The rice crop during the past year surpassed even the record level of 1953. Biggest producers are India, Pakistan, Japan, and Indonesia. In 1953, the area exported some 3 million metric tons of milled rice. Production of sugar and vegetable oils and seeds has increased.

Indonesia, India, and Pakistan have recorded substantial increases in output of food grains. Favorable weather conditions have contributed, but planned efforts to enlarge acreage, increase yield, and provide more irrigation are also paying off. In Pakistan, disastrous floods will have an unfavorable effect on this year's rice and millet crops.

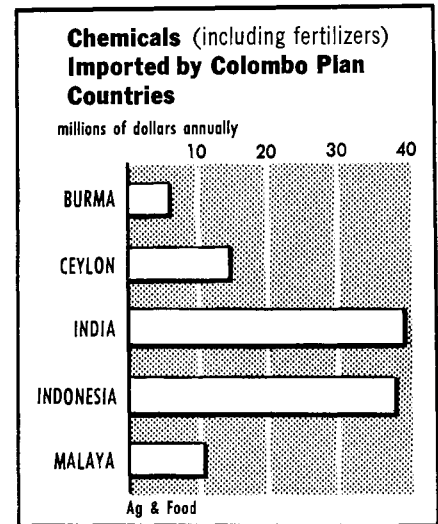
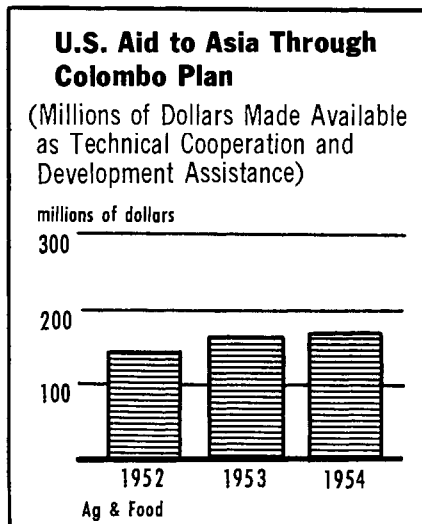
Over the last two years 1.5 million acres of new land in India have been opened up. In Pakistan, completion of the irrigation phase of the Thal project will result in 325,000 acres being brought under cultivation and in the settlement of 70,000 additional people. The

Taungpulu dam project in Burma was completed during the past year.

More Agricultural Chemicals

Colombo countries currently spend over \$135 million annually on chemical imports. A big proportion of this goes for fertilizers and pesticides. Self-sufficiency is not in sight, but efforts, particularly in India and Pakistan, are being made to increase home production of agricultural chemicals. Fertilizer application in all areas is below recommended levels and plans for the future include measures to increase consumption.

One of the world's largest ammonium sulfate plants is the Sindri fertilizer factory, completed in 1952 by the government of India. At Sindri, daily production now averages 965 tons. A



coke oven plant, designed to manufacture 600 tons of coke daily, was completed last September. A unit for the expansion of fertilizer production using by-product coke oven gas is under construction. Bids have been invited for equipment to produce 35 tons of urea and 150 tons of ammonium nitrate per day, or alternatively 70 tons urea and 110 tons ammonium nitrate per day, using waste gases from the coke ovens.

Ammonium sulfate facilities at Mysore and Travancore bring total installed capacity in India up to some 432,000 tons. Actual production in 1953 was only 320,000 tons, and last year's estimated production was slightly less. Distribution is the big problem, but the Indian government has been taking active steps to promote increased consumption.

There are 15 plants in India producing superphosphate using rock phosphate imported from Egypt, Morocco, Kossier, and Safaga. Rated capacity is some 275,000 tons, but here again the actual production is much lower; estimated production for 1954 is 100,000 tons.

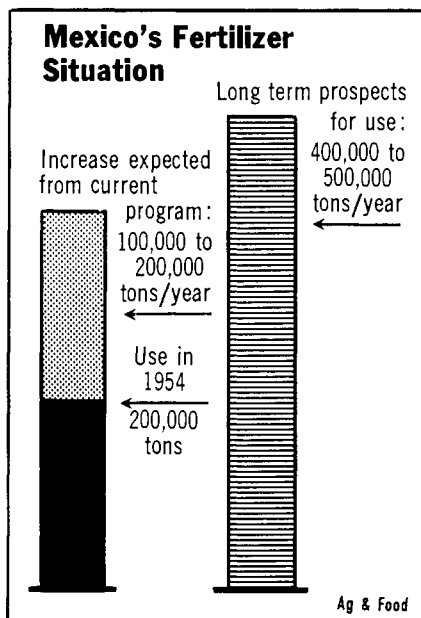
At Delhi, the Indian government is completing a new plant designed to produce 700 tons of DDT annually. Requirements have been estimated at 10,000 tons of DDT annually, but so far the Delhi plant is the only one in India. Benzene hexachloride is produced in India by ICI at the rate of 500 tons per year. A new unit for BHC has recently been completed by Tata Chemicals. Ltd., designed to produce 1500 tons per year.

In Pakistan, a 50,000-ton ammonium sulfate plant, estimated to cost over \$19 million, is under construction and is scheduled to go into production by the middle of 1956. This may well be the nucleus of a heavy chemicals industry. The United States is providing engineering services and financial backing for the plant. The Pakistan Industrial Development Corp. is setting up a sulfuric acid plant at Lyallpur and a caustic soda plant at Nowshera.

Bulwark against Communism

Continued economic support, whether through the Colombo Plan or through a new Asian "Marshall Plan" is now believed to be the best ensurance against the spread of communism in Asia. Congress must decide what part the United States will play in this program.

In London, *The Times* has put it this way: "Only the provision and organization of adequate assistance by the West will give any assurance that the Asian peoples will not gradually succumb to the blandishments of communism. The most important single agency for guiding development and assistance must be the Colombo Plan."



Mexican Fertilizer

American capital considers investment in Mexican fertilizer as government program there calls for more capacity

MORE FOREIGN CAPITAL investment in the fertilizer industry of Mexico seems to be the aim of the government of that country. The Mexican administration is calling for more fertilizer plant capacity to boost production of the nation's food crops. The problem is capital. The most likely answer lies in other countries, including the U. S. A. Details of the program have not been clarified with respect to plant capacities or production goals, but a number of U. S. manufacturers are being mentioned as possible participants.

The fertilizer expansion goal of the Mexican government has been spurred by the success encountered last year in increasing the output of food crops through fertilization, more scientific use of agricultural chemicals, and irrigation. As a result better yields are being obtained in wheat, corn, beans, cotton, and cane sugar. A part of the farm chemicals required is supplied by local industry, but it is evident that the tonnage so produced is not sufficient to meet the government aims.

Several American companies have been reported planning facilities in Mexico for fertilizer and pesticides manufacture. Olin Mathieson has been mentioned in this connection but up to mid-January it had no definite plans, it said. Through a division of its E. R. Squibb subsidiary in Mexico City, Olin Mathieson has been supplying agriculture in that country with some essential chemicals.

Other interests mentioned in this connection are Union Carbide, Allied Chemical & Dye, Du Pont, and Phillips Petroleum. It is unlikely that Carbide would enter the fertilizer business as it is not basic in those materials. It does manufacture fungicides and herbicides. Allied Chemical, Du Pont, Olin Mathieson, and Phillips, on the other hand, are large manufacturers of fertilizer ammonia.

A sum of \$50 million (U. S. dollars) was earmarked recently for the fertilizer project out of the total \$90 million obtained through the World Bank. The remainder would be spent on electrification and port works. A supplementary source for nitrogen would be provided by the \$15 million coke-oven installation being constructed by German interests in the state of Coahuila.

Broadened Research

Mexico has turned very definitely in the direction of scientific agriculture, which explains her greater utilization of chemical fertilizers and pesticides for basic food crops. Research emphasis has been placed on wheat, corn, and

Mexico's Imports 1954

	Metric Tons
Ammonium sulfate	25,000
Ammonium phosphate	20,000
Ammonium nitrate	14,000
Nitrophosphate	12,000
Nitrosulfate	10,000
Sodium nitrate	10,000
Anhydrous ammonia	8,000
Urea	8,000
Normal superphosphate	6,000
Concentrated superphosphate	3,500
Phosphoric acid	3,000
Potassium chloride	7,000
Potassium sulfate	3,000