

protein and calories in terms of wheat is 20 million tons. Ever-increasing availabilities of plant nutrients and larger and larger expenditures for irrigation will be necessary to increase cereal production sufficiently to erase this deficit. Over the next 15 years, this means the expenditure of some \$3 billion for construction of fertilizer plants and a similar expenditure for irrigation works.

Fat.—The reference standard for fat is the amount that will provide 15 percent of standard calories. This is regarded as a nutritional floor rather than a desirable standard. For the diet-deficit area, the standard ranges from 38 grams per person per day for the Far East and Communist Asia to 42 grams for Latin America.

This nutritional shortage occurs in 27 of the 60 countries studied in the diet-deficit area. The total deficit expressed in terms of vegetable oil is 3.3 million tons in 1962 and 3.2 million in 1966. The shortage is primarily in the Far East and Communist Asia.

The Far East, which shows a shortage in consumption of 1.6 million tons in 1962 and 1.3 million in 1966, is the world's third largest net exporter of vegetable oil and oil-bearing seeds and materials, exceeded only by the United States and Africa. The major Far East exporting countries—Malaya, the Philippines, Indonesia, and Ceylon—do not show shortages in consumption. In the remaining countries, therefore, the problem appears to be lack of foreign exchange for imports and lack of consumer purchasing power.

In countries where effective demand for vegetable oil is weak, because of a relatively high price compared to other food and living necessities, imports of vegetable oil under concessional terms would only increase the oil consumption of those whose present intake is probably well above the fat standard. This would leave persons with a fat shortage generally unaffected.

Since fat-deficit countries are unlikely to engage in countrywide free food distribution programs, the problem can only be resolved by increases in personal income through economic development. Such increases will tend to spur production of vegetable oil within the countries and may also encourage further imports.

It may be generally concluded from this analysis that nutritional shortages are closely related to low per capita production of food and goods that can be traded for food. These shortages can only be erased by substantial and sustained increases in agricultural production that make for balanced economic development in the diet-deficit regions themselves.

ILLUSTRATION AND FEEDING PROGRAMS GO TOGETHER

There is a common theme in all of the foregoing USDA comments bearing on these nutritional gaps in the various regions and countries, namely, the lack of purchasing power. Insofar as this is one of the basic reasons why both urban and rural populations in the less developed countries are undernourished in terms of proteins, calories, and fats, closing the nutritional gaps is bound to be a very slow process. What is involved here is the slow rate of speed with which predominantly rural countries can industrialize. For example, pre-World War II experience all over the world indicates that per capita purchasing power of a country tends to double when the complex and usually slow processes of industrialization succeed in producing a 20-point reduction in the proportion of the labor force engaged in agriculture.