

# World Consumption and Production of Eggs

As recently as the 1950s, producing poultry meat and eggs was not considered a large-scale endeavor, but a supplemental farm enterprise utilizing marginal amounts of grains. Eggs were the result of mature flocks and either hatched for replacement birds or eaten. Meat was produced from culled birds and males. This production system still exists in many backyard enterprises.

With changes in technology and improved genetics, however, new breeds have been developed specifically for meat (broilers) or egg (layers) production. Continuing intensive inbreeding of layer strains has resulted in the development of small size laying chickens resistant to diseases, improved egg quality, and increasing annual egg production.

For example, annual egg production in the United States increased from 120 eggs per layer in 1937 to 231 in 1974 to a current average of 270 eggs per layer [22]. In addition, success in breeding a smaller laying chicken resulted in sharp decreases in the costs of egg production, such as reduced feed requirements, housing, and equipment because of the lesser space required per layer. The new layer strains were disseminated all over the world as the industry became more commercialized, boosting egg production and consumption.

## Egg Consumption

Egg consumption averaged 190 eggs per capita in high-income countries, compared with 109 in middle- and 31 in low-income countries in 2000 [42]. Per capita egg consumption rose rapidly in the 1970s in the three income groups (fig. 7a). However, from 1980-2000, consumption declined by 14 percent in the high-income group, was basically unchanged in low-income countries, but showed nearly a 10-percent increase in middle-income countries.

## Egg Production

Worldwide, there are two kinds of eggs produced—primary or chicken eggs and other eggs (excluding hens). Chicken egg production is the most significant, amounting to 91-96 percent of worldwide totals during 1961-2001. Other eggs (composed mainly of duck, goose, and quail eggs) are produced mainly in Asian countries including China (83 percent), Thailand (7 percent), Indonesia (3 percent), and the

Philippines (2 percent). In 2001, nearly 94 percent of world non-chicken egg output was produced in middle-income countries, 5 percent in low-income countries, and less than 1 percent in high-income countries, mainly in the United Kingdom and Spain.

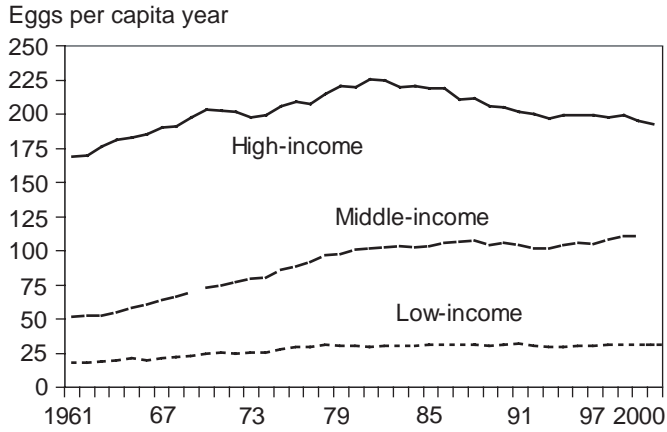
Worldwide, chicken egg production is a large-scale activity, more important commercially than production of other types of eggs. Therefore, this analysis focuses only on chicken egg production.

World chicken egg production increased more than fourfold during 1961-2001 and in middle-income countries more than sixfold. In low-income countries, output rose by about eightfold, but increased by only about 150 percent in high-income countries. The major chicken egg producers are China, accounting for 41 percent of the world total, followed by the EU and the United States, at 9 percent each. Other important egg producers include Japan, Russia, Mexico, and India. Japan's egg production has steadily increased, nearly doubling from 1961 to 2001, while that of the EU and the United States has decreased 2-3 percentage points below their 1961 levels. Similarly, Canada and Australia showed declining trends over the same period.

In 1961, middle-income countries' share of chicken egg production was 38 percent of the world total, high-income countries, 58 percent, and low-income countries, less than 5 percent. Since then, middle-income production has been accelerating and exceeded that of high-income countries at about 47 percent by 1977. By 2001, middle-income countries accounted for the largest share, about 66 percent, compared with 24 percent in high-income countries (fig. 7b). Among middle-income countries, China alone accounted for 62 percent of total egg production, followed by Russia, Mexico, and Brazil. After the 1992 split of the Soviet Union, Russia's production decreased falling to 19 percent below 1992's 2.4-million-ton output by 2001.

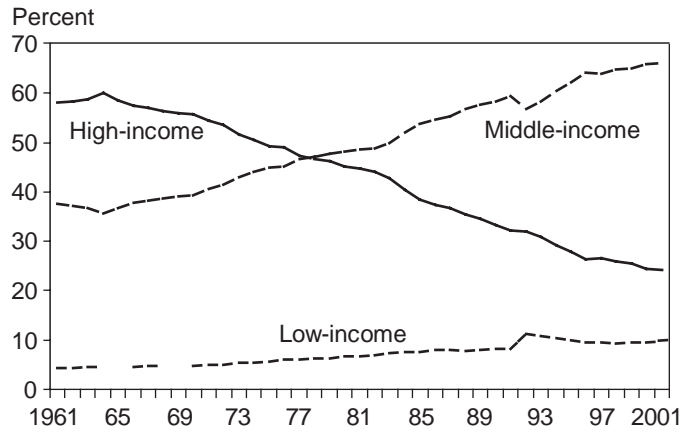
The next section initially provides background information specific to Egypt, then presents forecasts for Egypt's poultry industry needs and feed requirements. The Egyptian experience, as well as projections for the future, is applicable to other countries in similar situations where protective government policies and income growth intersect in a period of pressure toward greater trade liberalization.

Figure 7a  
**Per capita egg consumption by income group, 1961-2000**



Source: Economic Research Service/USDA.

Figure 7b  
**Chicken egg production shares by income group; percent of world total, 1961-2001**



Source: Economic Research Service/USDA.