# **Executive Summary**

Poultry meat is the fastest growing component of global meat production, consumption, and trade, with developing and transition economies playing a leading role in the expansion. In addition to providing opportunities to increase poultry exports, rising poultry production spurs growth in global import demand for feeds and other inputs and in investment opportunities in these sectors. India, the world's second largest developing economy, now has a large and rapidly expanding poultry sector. Expansion in India is being driven by rising incomes and a shift in industry structure toward integrated ownership and coordination of the input, production, and marketing operations involved in poultry production (vertical integration). These factors, in addition to government policies affecting feed supply levels, will help shape future growth in the poultry industry in India, as well as in emerging trade and investment opportunities.

Several key findings based on developments in India's poultry market may provide insights to prospects for poultry industry growth in other developing countries:

- Poultry meat demand is highly price sensitive among low- and middle-income consumers. Policies that protect the domestic poultry market may also slow growth in consumption and production.
- ◆ Factors that discourage transport and distribution of poultry within India, including limited demand for frozen products, a poor and high-cost transport infrastructure, and limited and unreliable cold chain, or frozen storage, facilities, are also strong impediments to poultry imports and may be as important as tariffs in constraining trade.
- Vertical integration can promote industry growth by enhancing production and marketing efficiency and reducing consumer prices. In India, the gains in marketing efficiency appear more significant than in production efficiency.
- Competitive feed prices are key to competitive poultry and egg production. Policies that protect local feed producers are also likely to slow growth in poultry and egg output, imposing significant losses on producers and consumers.

## Implications for U.S. Agriculture

Prospects for Indian imports of poultry meat are limited. Competitive local production costs, low demand for frozen meat, and poor cold chain facilities, as well as high tariffs, are major constraints to trade. Growth in demand for corn and soybean meal, however, will likely outstrip gains in local production, creating demand for corn imports and reducing exports of soybean meal. India's corn import policy, and the pace of gains in corn and soybean productivity, will influence the amount of trade.

Foreign direct investment (FDI) has, so far, not been a major factor in the development of India's poultry sector. But India's fast-growing, competitive, and potentially large industry offers investment opportunities in input activities, such as breeding, medicines, feed, and equipment, as well as vertical integration and processing. While the country permits FDI in these activities, investments are constrained by market and policy uncertainty, poor power and transport infrastructure, and high taxes on processed food.

### Incomes, Changing Market Structure, Drive Growth

Available data indicate that, since the early 1990s, poultry meat has been the fastest growing sector of animal product production and consumption in India. Factors driving the industry's expansion include quickening growth in per capita incomes, a young and increasingly urban population, and declining real poultry prices. With recent studies suggesting that most Indians do not have strict vegetarian dietary preferences, income and price are likely to continue to influence rising demand.

The expanding role of poultry integrators, primarily in South and West India, has contributed to declining poultry prices. Integration, typically encompassing enterprises ranging from breeding, feed milling, and contract growing to wholesale and retail marketing, appears to have increased production efficiency and significantly reduced marketing margins and consumer prices. Future industry expansion may depend on the pace at which integrated poultry operations spread in the West, East, and, particularly, the affluent North.

Expansion of poultry sector integration, in turn, may depend on the pace of transition in India's poultry sector from a live-bird market to a chilled/frozen-product market. Live-bird sales now dominate the market, preventing exploitation of regional comparative advantages in production, or the use of storage, domestic product movements, and international trade to stabilize supplies and prices. A shift to mechanical, and more hygienic, processing that would be an integral part of a transition to a chilled/frozen-product market may also have public health benefits, although there is little evidence that current practices are creating health problems.

## **Competitive Production Costs**

Data also suggest that India is an internationally competitive producer of poultry meat. Producer prices of whole birds in India, while higher than in Brazil, compare favorably with those in other Asian countries and the United States. Poultry production in India benefits from improved management practices and the availability of local supplies of corn and soybean meal at internationally competitive prices. Competitive local prices, combined with high tariffs, poorly defined phytosanitary requirements, and a limited market for frozen poultry, are constraints to significant poultry meat imports in the near term.

If recent trends in poultry and egg production in India are sustained, growth in demand for corn and soybean meal is likely to outpace gains in domestic production. For corn, variable domestic production, expanding feed use, and tariff and quota restrictions on corn imports could combine to constrain growth in both the poultry and egg industries, raising production costs and consumer prices and slowing consumption. For soybean meal, the Indian poultry and egg industries benefit from local surpluses and ready availability, although rising internal demand may erode exports.

# Policies Affecting Market Integration and Feed Trade Key to Future Growth

With the expansion of India's poultry industry, the country's government must address a number of new issues, including economic tradeoffs between poultry producers, feed producers, and consumers, potential public health concerns

associated with traditional slaughter and marketing practices, and appropriate tariff and nontariff policies for imports of poultry and industry inputs. Although government policy has traditionally given priority to promoting self-reliance in agricultural products, it is unclear how future policy will weigh the competing interests of, among others, poultry and egg producers, consumers, and feed producers.

Poultry sector integration can yield substantial benefits for the sector and, particularly, consumers of poultry meat. Feed shortages, however, can have significant adverse effects on producers and consumers of poultry meat and, particularly, eggs. Although Indian corn producers may gain from higher prices associated with import restrictions, these gains must be weighed against losses to producers and consumers of poultry meat and eggs, as well as to the potential international competitiveness of Indian poultry production. Development and adoption of technology that can improve the competitiveness of domestic feed production would allow all producers and consumers to benefit from poultry sector expansion.

### **Data Limitations Constrain Policymakers**

Analysis of developments in India's poultry sector is made difficult by the lack of reliable and timely official data on such variables as production, consumption, feed use, and production and marketing costs. Information from industry sources suggests that production and consumption of poultry meat in India has grown by as much as 15 percent annually since the mid-1990s, far faster than indicated by official data. Based on these findings, poultry will likely grow in importance to the Indian diet and to farm income and create new pressures for appropriate policies in industries that supply inputs to poultry producers, as well as in poultry processing and marketing activities. Better data and information will be needed to support public and private sector decisionmaking.

## Map of India

