

## Recent Trends in Poultry Supply and Demand

Assessing recent trends in Indian poultry production and consumption is complicated by poor and conflicting data. Government and industry sources publish very little reliable data on the Indian poultry sector. Available government data consist only of periodic poultry population estimates, with the most recent estimates based on a 1992 livestock census. Government sources also report wholesale poultry prices for a few markets, but there are no official statistics on poultry consumption, marketing, processing, or feed use. The Food and Agriculture Organization of the United Nations (FAO) and the U.S. Department of Agriculture (USDA) publish estimates of Indian poultry supply and use, but, in the absence of supporting survey information, these estimates do not have a strong statistical foundation. Trade associations, including the Poultry Federation of India, also do not currently compile industrywide data. Thus, assessments of recent trends rely heavily on information provided through interviews with various industry sources.<sup>2</sup>

USDA estimates that India's poultry meat production grew about 6 percent annually during the 1980s, accelerating to 11 percent annually in the 1990s and nearly 19 percent during the 1997-2002 period (table 1 and fig. 2). With poultry production of 1.4 million tons in 2002, India ranked as the sixth largest poultry producer in the world, behind the United States, Brazil, the European Union, China, and Mexico. USDA estimates of Indian poultry production since the mid-1990s were revised sharply upward in 2002 to reflect information from industry sources and are significantly higher than other official estimates. FAO estimates, which are based on Government of India (GOI) data, suggest much lower production and growth than the USDA data. A third set of estimates, included in a study by the U.S.A. Poultry & Egg

<sup>2</sup> The data and information reported in this study are based primarily on ERS field research in India in August 2001. The ERS team, comprising Suresh Persaud, Rip Landes, and David Harvey, traveled throughout India interviewing representatives of poultry hatcheries, producers, processors, wholesalers, retailers, feed producers, and poultry integrators, collecting data and information on their operations and local market developments. Invaluable support for the field research was provided by Dr. V. Shunmugam, FAS Agricultural Specialist in the U.S. Embassy in New Delhi, and Dr. A.P. Sachdev, local representative of the U.S. Feed Grains Council, both of whom helped identify key industry contacts.

**Table 1—Growth rates of poultry production in India**

Period	USDA	FAO	USAPEEC <sup>1</sup>	Industry average <sup>2</sup>
<i>Growth rates (percent)</i>				
1980-90	6.0	11.7	--	--
1990-00	11.0	5.3	7.7	--
1990-96	9.8	5.8	8.3	--
1997-02	18.6	2.5	--	14.8

-- = Not available.

<sup>1</sup> USAPEEC is 1990-99 instead of 1990-2000.

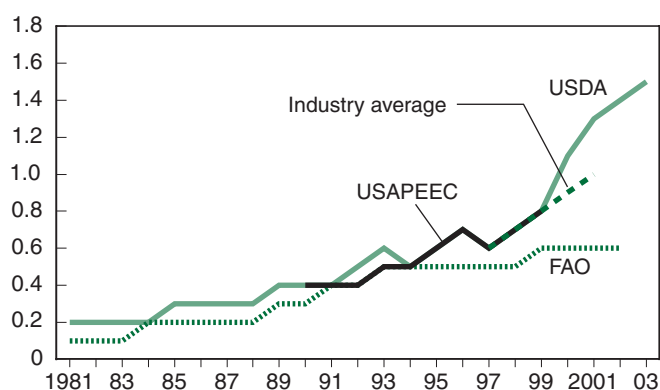
<sup>2</sup> Industry average is 1997-2001 instead of 1997-2002.

Source: FAOSTAT database, August 2002.

Figure 2

### Estimates of poultry production in India

Mil. tons



Sources: USDA PS&D database, FAOSTAT database, U.S.A. Poultry & Egg Export Council.

Export Council (USAPEEC) and reportedly derived from official GOI and FAO data, is roughly consistent with USDA data but ends in the mid-1990s.

The lack of timely national survey data makes it difficult to assess actual production trends. Several factors, however, suggest that the most recent USDA series, based primarily on private industry estimates, more accurately captures actual developments than the other sources. First, private industry estimates are more likely to account for the rapid technical and structural change in the sector. The industry estimates are based on technical parameters and assessments of breedwise placements of broiler parents and grandparents by companies familiar with the industry. The GOI estimates, by contrast, are based on surveys administered

to known poultry operators every several years, which may not reflect new capacity and technical change.<sup>3</sup>

Second, trends in income growth and prices are consistent with faster growth in poultry consumption and production since the mid-1990s (table 2). Faster growth in income (per capita GDP) during the late 1990s, together with population growth, suggests that demand increased. The lower growth rate for poultry prices relative to rates for all foods and all meats, at a time of rising demand, suggests that poultry meat production grew faster in the late 1990s than in the earlier periods.<sup>4</sup> Slower growth in the price of corn, which accounts for a large share of poultry production costs, also supports faster growth in poultry production, as well as slow growth in poultry prices, during the late 1990s.

Finally, most private sector sources of information, including hatcheries, feed suppliers, and integrators, report that the industry is expanding more rapidly than the 3-4 percent annual growth implied by the FAO data. It should be noted that industry sources focus mostly on the organized commercial elements of the sector. However, the noncommercial elements of the

<sup>3</sup> Although the industry methods are also susceptible to error, it does not appear that they have a consistent bias. For example, one of the industry sources reported that its production estimate may be understated because the marketing staff that does the assessments is rewarded based on market share performance and, hence, has an incentive to underestimate competitor placements. On the other hand, another source indicated that its estimates may tend to overstate production because some of the firms may have provided inflated numbers to suggest an impending oversupply that would lead competitors to reduce placements.

<sup>4</sup> Assuming income- and own-price elasticities of demand of 1.7 and -1.5, respectively, the implied growth rates of poultry consumption and production for the periods analyzed would be 1980-90: 10.5 percent; 1990-99: 9.3 percent; 1990-95: 4.5 percent; and 1995-99: 14.7 percent.

**Table 2—Wholesale price and income growth in India**

Period	Wholesale price indices				Per capita GDP
	All food	Poultry	Eggs, fish, and meat	Corn <sup>1</sup>	
	<i>1981/82=100</i>				<i>Rs.</i>
1979-81	92	123 <sup>2</sup>	87	87	5,333
1989-91	201	165	193	167	7,063
1994-96	335	277	378	290	8,095
1998-2000	453	304	491	346	9,742
	<i>Growth rates (percent)</i>				
1980-90	8.1	4.3 <sup>3</sup>	8.3	6.8	2.9
1990-99	9.5	7.0	10.9	8.4	3.3
1990-95	10.8	10.9	14.3	11.6	2.8
1995-99	7.8	2.3	6.8	4.5	3.8

<sup>1</sup> Index of average wholesale prices in Bihar, Karnataka, and Uttar Pradesh.

<sup>2</sup> 1982-84 average.

<sup>3</sup> 1983-90 growth rate.

Sources: *Agricultural Prices in India*, GOI, various issues; *Economic Survey*, GOI, various issues.

sector now reportedly account for only 10-20 percent of broiler supplies and are unlikely to alter broad industry trends.

Trade or storage of poultry products in India is negligible, so the estimates of poultry consumption are virtually identical to production (app. table 1.2). Again, while the consumption numbers constructed from the industry average production estimates, trade data, and assumed storage behavior must be used with caution, the faster consumption growth implied by the USDA estimates is consistent with other information, including trends in income and prices, and the views of industry experts interviewed during field surveys. In particular, faster growth in per capita incomes and declining real poultry prices suggest that growth in poultry consumption is likely to have increased significantly since the mid-1990s.

## Growth in India's Poultry Sector Relative to Other Countries

FAO data provide the most complete coverage of global poultry production and consumption for use in comparing growth in various countries and regions. According to FAO data, growth in India's poultry sector was slow relative to growth in other developing countries in both the 1970s and 1990s but fast in the 1980s (table A-1). USDA estimates, however, may provide a more accurate assessment of the growth and structural change in the Indian poultry

industry, particularly during the 1990s (see page 2). A comparison of the USDA estimates for India with the FAO data for other regions suggests that Indian poultry production and consumption are now expanding at a pace consistent with other fast-growing developing countries. According to USDA estimates, India is now the sixth largest poultry producer in the world, after the United States, Brazil, the European Union, China, and Mexico.

**Table A-1—Growth rates of poultry production and consumption, by global region<sup>1</sup>**

Region	Production			Consumption		
	1970-80	1980-90	1990-99	1970-80	1980-90	1990-99
	<i>Growth rate (percent)</i>					
World	5.8	4.6	5.3	5.7	4.7	5.1
Developed countries	5.1	3.5	2.4	4.8	3.6	1.9
United States	3.7	5.0	4.5	3.2	5.0	3.1
Transition markets	7.7	2.6	-5.3	7.9	2.6	-2.9
Developing countries	7.5	6.9	9.1	7.8	6.5	9.1
Asia developed	8.6	2.2	-0.6	8.7	3.6	1.7
Asia developing	6.3	8.2	9.7	7.2	7.5	9.8
South Asia	3.4	9.6	6.3	3.5	9.6	6.3
China	5.4	8.8	13.5	5.4	9.0	13.6
East & S. East Asia	6.5	7.4	5.9	6.3	6.9	5.9
Near East	9.0	7.6	5.3	12.9	5.0	5.0
Latin America & Caribbean	9.9	5.5	9.0	9.3	5.4	9.1
Africa developing	5.6	6.0	4.6	6.5	5.5	4.7
India						
FAO data	3.2	11.5	6.0	3.2	11.5	6.0
USDA data <sup>2</sup>	5.9	6.3	9.2	5.9	6.3	9.2

<sup>1</sup>Compound annual growth rates between 3-year averages centered on the years indicated.

<sup>2</sup>1975-1980 growth rates instead of 1970-1980.

Sources: FAOSTAT database, August 2002; USDA PS&D database, January 2003.