

## COMMODITY CASE STUDY: POULTRY PRODUCTS

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Raising a few poultry birds on the backyard is a common feature of the subsistence farming system of Nepal, except for people of some castes who refrain from consumption of egg and poultry meat on religious ground. This also has been changing. While only about one-third of the farm households raised poultry birds in 1981/82, it increased to 52% in 1991/92 and to 57% in 2001-02. However, it is the commercial sector that has been the main source of growth of the poultry sector in Nepal and one of the fastest growing segments of the agricultural economy.

This growth in a way “reveals” the comparative advantage of the sub-sector. The poultry industry has been able to respond fully to the rapid growth in the demand for poultry meat and other products, and has also contributed to the growth of the feed industry. That the industry was able to perform in this way in a fairly open trading environment also indicates the competitiveness of the sector.

The paper has four purposes: (i) to examine the present situation of the poultry sub-sector of Nepal; (ii) to analyse the key issues affecting it; (iii) to discuss the likely implications of Nepal’s WTO membership on the sub-sector; and (iv) to identify measures to improve efficiency and competitiveness. As a commodity cluster, the poultry industry is also interesting from analytical and policy perspectives as the policy measures, e.g. tariffs, need to strike an appropriate balance for support or policy neutrality for various inputs and outputs of the industry, e.g. feeds, eggs, meat and live birds. The importance of the industry to poverty alleviation is another consideration in discussing policy implications.

The common definition of poultry includes avians such as chicken, quail, turkey and geese. However, the term “poultry sub-sector” or poultry in short in this chapter refers to chicken and chicken egg, unless mentioned otherwise, in view of the dominance of chickens. The term “poultry industry” refers to the entire gamut of commercial poultry raising, feed and other ancillary industries and support services. For simplicity, “meat” and “egg” only refer to chicken meat and egg.

As will be noted below, the analysis in this chapter has been constrained by lack of time-series and disaggregated data, especially on trade. Hence, it was not possible to establish firm trends. Similarly, despite the usefulness of the indicators of competitiveness, like domestic resource costs and effective protection rates, appropriate data were not available. Moreover, there is a high degree of discrepancy between the official and private sources of data. As a result, consultation with key stakeholders in the industry and government officials was an important part of the methodology.

The chapter is divided into three sections. The section that follows presents an overview of the main features of the poultry industry. It is followed by a section that covers a range of issues facing the sector in the context of *inter alia* competitiveness, domestic policy and WTO membership. The last section concludes.

## **THE POULTRY INDUSTRY OF NEPAL**

Livestock sector accounts for one-third of the agricultural GDP of Nepal. Within this sector poultry accounts for about 8%. Similarly, poultry meat accounts for one-fifth of the total value of meat output in Nepal. Thus, the poultry industry still has a relatively small base and is concentrated mainly close to the urban population centres. The potentials, however, are high for both poultry production and in the development of ancillary industries in other parts of the country where urbanisation is growing. Similarly, there is as yet unexplored potential for the establishment of meat, egg and feather-based industries linked to tourism.

Nepal is considered to be self-sufficient in poultry products and in poultry feeds although a significant proportion of the feed ingredients e.g. grains and oil meals are imported from India (Lohani 2001). Current annual levels of production of commercial chicks, broilers and eggs are considered enough to meet the domestic demand for these products. The available information shows that the country is also exporting poultry products and feed. The country seems to be a net exporter of feeds<sup>116</sup> and meat whereas it is a net importer of eggs.

### **Significant statistical discrepancy**

Given the scale of the problem on statistics, it is important to note this point at the outset. The private commercial poultry industry claims that its estimates of chicken egg and meat production as well as growth rate of the industry is much higher than official sources show (Lohani 2002). For example for 2001/02 for which comparable figures are available, the private sector estimate of total volume of chicken meat production in Nepal is almost four times that reported by the MoAC, while egg production is more than double the MoAC estimate.

### **Growth of poultry within the livestock sector**

Even if one accepts that the MoAC estimates are conservative, the national average rate of growth in poultry production - both meat and egg - is much higher than the rest of the major livestock products during 1996/97-2001/02 - more than twice the rate of growth of outputs of rest of livestock sector (with some exception for egg in relation to pig meat and cow milk). As a result, the share of poultry meat in total meat production - in volume terms - has consistently increased over the same period. Obviously, this share will be much higher if the estimates of the private sector are used. In value terms, however, the opposite is the trend, i.e. a consistent decline during the period, mainly reflecting changes in relative prices.

### **Commercial poultry industry**

While traditional poultry farming is common all over the country, commercial poultry is demand driven and is concentrated in accessible areas of 10 or so districts. These 10 districts account for roughly 44% of Nepal's total poultry population. Most of the concentration (40 percentage points out of this 44%) is around Kathmandu valley and in the relatively accessible areas of the districts surrounding the

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<sup>116</sup> The private sector has a different position on Nepal being a net exporter of feed. See footnote 118.

valley (i.e., Kavrepalanchok, Nuwakot, Dhading, Makwanpur and Chitwan). Two other districts in the eastern Tarai (Jhapa and Morang) account for the remaining 4 percentage point. Recently, accessible areas around the Pokhara Valley are also emerging as fast growing poultry areas to meet the local demand and to cater to the tourist industry.

The number of commercial poultry farms is rising rapidly. In 2001/02, there were 25 commercial hatcheries with a combined capacity of: 60 000 parent layers that can produce up to 70 000 chicks per week or 3.64 million chicks per year; and 300 000 parent broilers that can produce 650 000 chickens per week or 33.8 million broilers per year. The industry associations state that there are 800 commercial poultry farms in different parts of Nepal, with a total flock size of 3.7 million layers producing roughly 2.7 million eggs per day. These farms are also raising 32.1 million broilers producing 60 tonnes of poultry meat per day. As compared with this capacity, the actual outputs in 2001/02 as estimated by the private sector (Table 1) are 12.2 million commercial chickens producing 38.1 million day-old chicks, 1 174 million eggs and 206 880 tonnes of meat. Similarly, feed enterprises produced nearly 414 000 tonnes of poultry feed in that year.

**Table 1: Commercial poultry population and outputs, and poultry feed production, 2001/02**

Item	Unit	Production Flocks		Parent Breeders		
		Layer	Broiler	Layer	Broiler	Total
Total population	000 units	6,290	5,569	57	276	12,191
Day-old chicks	Million units	38	34	-	-	38
Chicken egg	Million units	1,174	-	-	-	1,174
Chicken meat	M. Ton	6,374	47,612	61	559	54,605
Poultry feed	M. Ton	230,627	167,058	2,280	13,794	413,759
Poultry manure	M. Ton	115,313	83,529	1,140	6,897	206,880

Source: Lohani (2002).

### **Dualisms in the structure and growth of the poultry industry**

According to the 1991 Agricultural Census, the relationship between the size of land holding and the average number of birds per holding is positive and fairly strong (Table 2). However, the data show an interesting dualism in that relatively larger numbers of birds are raised by landless or near landless households located in accessible rural areas or in the vicinity of urban areas, also indicating the potential of the poultry farming for poverty alleviation. The data also show relatively larger numbers of birds among the highest land holding stratum. One further dualism is in the rate of growth in poultry population and outputs. The share of the top 10 districts, in particular Kathmandu valley and vicinity, in total poultry population has increased markedly in recent years, while the share of the remaining 65 districts is generally declining. Similar trends are found for layer population and meat and egg production. The average annual rate of growth of chicken and layers population in these districts during 1996/97-2001/02 was nearly 12% as against only about 3% for the 65 districts as a whole. The growth rate for chicken meat and egg has been around 9% per annum for the top 10 districts but only about one-fourth of that for the rest of the country.

**Table 2: Size of holding and number of poultry birds per holding, 1991/92**

Strata	1	2	3	4	5	6	7	8	9	10	11
Average holding (ha)	0.05	0.06	0.14	0.34	0.70	1.36	2.38	3.40	4.40	6.55	18.44
Number of birds/holding	15.6	2.6	3.1	4.0	4.5	4.8	4.8	5.5	5.2	5.3	54.2

Source: Based on CBS (1993).

### **Growth in commercial poultry production and poultry feeds**

As noted earlier, the rates of growth of meat and egg production in the commercial sector as estimated by the private sector are over twice the estimates of the MoAC for the top ten districts for the same period. Notwithstanding this significant difference, the private sector estimates (Table 3) show the production of both chicken meat and egg to have grown annually by 23% during 1996 and 2001/02.<sup>117</sup> All other components of the poultry industry, e.g. chick production, broiler and layer chicks and poultry feed, have also grown in similarly impressive rates. While the MoAC does not provide any disaggregated estimates for these products, the estimates in the Economic Survey for feed production are substantially below the private sector's estimates reported above. For example, the production of animal feed (which obviously should include poultry feed) was 24 000 tonnes in 1996/97 and 22 266 tonnes in 2001/02, approximately one-sixth and one-eighteenth of the estimates reported in Table 3. These differences are too large to ignore and therefore reconciling them must receive very high priority.

**Table 3: Growth in Poultry Feed and Commercial Poultry Product production**

Sub-sectors	Unit	Production		Growth rate % per year
		1996	2001/02	
Chicken meat	000 tonnes	20	55	23
Chicken eggs	Million units	390	1174	23
Day old broiler chicks	Million units	10	34268	27
Day old layer chicks	Million units	2	3873	20
Broiler feed	000 tonnes	63	181	24
Layer feed	000 tonnes	87	233	22
Total poultry feed	000 tonnes	150	414	23

Source: Lohani (2002).

### **The structure of poultry firms**

The commercial poultry sector is characterized by the predominance of small farms with 200 to 500 birds per farm, most of them of backyard type. The flock size of the largest layer and broiler hatchery both located in the Chitwan Valley is 30 000 parent birds and 50 000 layers, and 100 000 broilers, respectively. As regards the rearing method, birds are generally kept in deep litter using rice husk as bedding material and fed with commercially produced feed. This practice reduces initial capital cost but increases the risk of spreading disease at a faster rate than if the birds are kept in cages. One study found that the mortality rate is almost 25% higher in the deep litter method compared to rearing in cages (Dhakal, n. d.).

<sup>117</sup> The production estimate of the private sector for the base year (1996/97) is also found to be roughly twice that of the MoAC for meat (10 671 tonnes) while it is less than the MoAC estimate (405 million) for eggs (MOAC 2003). These differences in base levels influence the growth rates.

## Industry employment

Although growing at a faster rate, the industry has yet to develop strong forward linkages. One-fourth of the 68 000 persons estimated to be employed in the industry are engaged in marketing of poultry products (Table 4). The number of egg suppliers and meat suppliers within the Kathmandu Valley and its periphery alone is reported to be 35 and 727, respectively (DLS 2003). Meat processing industry is still in infancy, and egg processing industries and those that utilize poultry feathers are non-existent. This also indicates future scope for expansion and diversification within the industry.

Table 4: **Employment in commercial poultry sub-sector, 2001/02**

Activities	Persons engaged	Activities	Persons engaged
Poultry raising	39 528	Poultry breeding farms	799
Feed production	4 276	Feed mix supply, veterinary care and drugs	914
Feed marketing	4 138	Collection and supply of feed ingredients	896
Cold store and marketing	9 101	All Total	68 062
Egg marketing	6 523		
Hatchery and chicken distribution	1 907		

Source: Lohani (2002).

## The emergence of strong poultry associations

The industry is organized as a coalition of a number of independent private firms or partnership entities. These firms have joined together to form four specialised but closely related associations: Nepal Hatchery Industry Association, Nepal Egg Producer's Association (NEPA), Poultry Entrepreneurs Association, and Nepal Feed Industry Association. Combining these and other related associations is an apex forum - the Nepal Poultry Entrepreneurs' Forum. In December 2002, the NEPA made a suggestion to the DLS to create a National Poultry Development Board with adequate representation of the private sector and with a mandate to serve as a bridge between the government and the private sector on matters related to the industry (NEPA 2002). This suggestion merits serious consideration.

Nepalese entrepreneurs produce only white broilers and brown eggs to distinguish these from eggs coming in from India. The common white broiler strains raised are Vencobb, Hubbard, Hubchicks, Arbor Acres, Ross, Avian and Anak 200. Similarly, common brown egg type strains are Lohmann, Hyline, Hisex, Keystone, Golden Comet, Isa Brown and Babcock.

## SELECTED ECONOMIC, POLICY AND LEGISLATIVE ISSUES

*Innovative public-private collaboration on veterinary care:* Private service providers have emerged in many parts of the country but they mainly serve the larger firms at full cost, leaving the smaller firms to depend on services of the DLS. The services are obviously grossly inadequate relative to the demand. As the industry grows rapidly, innovative ways have to be found to provide animal health services, including best use of the government services. One example of this could be a suggestion made by the NEPA to convert the National Avian Disease Laboratory; currently a government unit located in Chitwan, into a development board with

the participation of the private sector (NEPA 2002), also considering the fact that the poultry industry is increasingly concentrating in Chitwan. This proposal merits serious consideration, along with other ideas whereby the public-private collaboration can contribute to reducing the cost of health service provision by the government as well as effectiveness. The industry reports that not all problems involve high costs. A number of poultry diseases have been identified that can be prevented with better hygiene and care, essentially an extension issue. Similarly the “indiscriminate use of antibiotics” leading to “development of drug resistant pathogens” is also reported, and would require a similar solution, e.g. evaluation of probiotics as a method (Dhakal n. d.). The poultry industry has been a dynamic sector and so deserves priority attention in these and other issues.

### **Marketing and credit**

The marketing of poultry products and inputs are fully done through private channels based on individual contacts and association. It is alleged that these channels are seldom transparent in terms of the quantity, quality and process of the products transacted, leaving considerable scope for distortions and other forms of malpractices. For credit facility, the government treats commercial poultry sector as any other industry and thus prevailing interest rates and other terms are applied by commercial banks.

### **Ancillary industries and backward and forward linkages**

Backward linkages with the crop, livestock and fisheries sub-sectors via the feed industry are a characteristic feature of the poultry industry. Estimates for mid-2003 show that there were 139 commercial feed mills with a combined production capacity of 1 100 tonnes per day of both poultry and animal feed. Feed entrepreneurs report that adequate quantities of feed ingredients of acceptable quality are often not available in local markets. Even when available in enough quantity, these ingredients vary widely in quality thus affecting the quality of the feed produced. As a result, the industry is heavily dependent on imports from India for most of the feed ingredients. One estimate shows that domestic production of ingredients meets only 54% of the total requirement while the balance is imported. Nepali poultry feed mills depend 100% on import for certain ingredients such as soybean meal, sunflower cake, fishmeal, vitamins, minerals and additives (Lohani, n. d).

Given the high dependence on the one hand and technical feasibility for domestic production of most ingredients on the other, there seems to be marked scope for vertical integration of the industry. The other issue is horizontal linkage between different production pockets – that the domestic market does not provide sufficient signals to input producers on the quality of the various ingredients needed means that initiatives are required from poultry entrepreneurs as well as the public sector. Initiatives are required from the public sector along the line suggested in the APP in order to reduce the cost of collection and distribution of raw materials. The likelihood that the cost of collection and transportation of some of these feed ingredients are much higher than that in India cannot be easily ruled out in the present situation. Further in the chain of backward linkage, the number of specialised raw material suppliers is 40 and that of drug dealers is 112.

The poultry industry produced a total of about 207 000 tonnes of poultry manure as a by-product, which is generally considered to be richer in plant nutrients than the manure from other animals.

### Issues on productivity

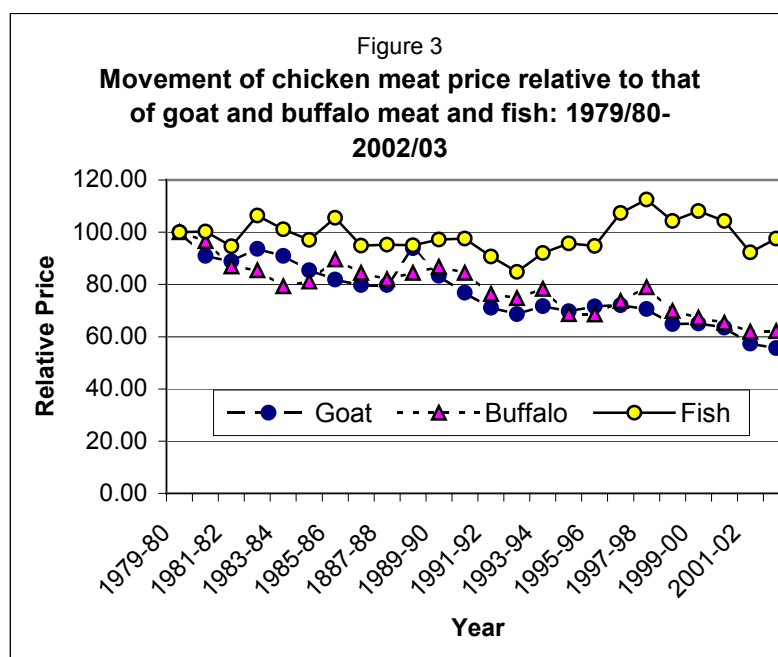
Productivity, especially the gap between the commercial and traditional sectors is an important indicator to know in itself, as well as for planning purpose. However, there is very little information on this. What is known may be summarized as follows. Comparing aggregate statistics (e.g. Table 3), it appears that poultry sub-sector productivity in the top ten districts is only slightly higher than that in the rest of the country, i.e. the commercial sector could be considered to be only marginally better than the traditional sector. However, estimates of the private sector are very different than that of the MoAC. For example, one estimate without quoting the source or the year under reference mentions that the average egg production per hen in commercial poultry is 200 while it is only 50 for the rest of the country (Dhakal, T., n. d.). Despite the attempts made, it proved difficult to obtain productivity statistics from poultry entrepreneurs, partly because of the reluctance to share this information and partly because of lack of systematic records.

### Competitiveness and its sources

Commodities like chicken meat and egg typically have high price and income elasticities of demand, and their demand is likely to rise as prices relative to other sources of meat such as goat meat continue to remain relatively high and income grows at a reasonable rate. Based on this analytical framework, some indicators of competitiveness of the poultry sub-sector are discussed below. These are: i) the sub-sector performance relative to livestock sector as a whole; ii) trends in terms of trade (ToT) relative to prices of potential substitutes; and iii) trends in ToT relative to major feed ingredients. The basic data used are the estimates of the MoAC. The section also reports some analysis to gauge the competitiveness of the sub-sector in the international market.

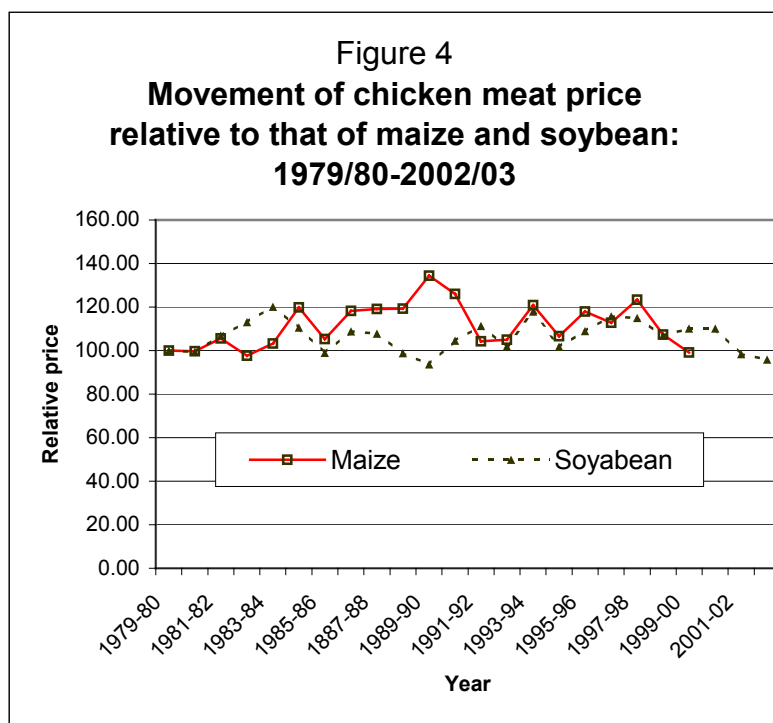
#### Trends in factor and product prices

Figures 3 and 4 provide two indicators of the trend in competitiveness of the poultry sector and chicken meat production in particular. Figure 3 shows that, barring a few exceptions with respect to fish; the price of poultry meat has been falling relative to other meats and fish. While chicken meat was the most expensive meat until 1990/91, it has emerged as the



cheapest source of commonly consumed meat after buffalo meat (DOA 2003). The strong growth in recent years despite these declines in output prices is indicative of the resilience of the sub-sector. It also means that the business is still paying.

Figure 4 indicates positive trend in the price of meat relative to the price of



major feed grains, i.e. a favourable terms of trade (ToT). The prices of important ingredients of poultry feed such as maize and soybean, which together account for nearly 56% of the total cost of feed ingredients (Lohani, 2002) are increasing at a much slower rate than the price of chicken meat. This is an indication of the growing competitiveness of the sub-sector in the domestic market. As for egg, the ToTs are less favourable in the domestic market than for chicken meat within the poultry industry, both in relation to the price of

the two main feed grains and to the prices of goat and buffalo meat, and fish.

### International trade and competitiveness

A thorough analysis of the structure of and trends in trade of poultry and related products is very much constrained by lack of statistics, notably lack of trade data in volume for various poultry products and feeds. The following analysis therefore is based mainly on four-years of data (1999-2002) only in value terms, published by the Department of Commerce (DOC 1999 to 2002), supplemented by additional information from the private sector.

Overall, Nepal seems to be a net exporter of animal feeds<sup>118</sup> and meat, and a net importer of eggs and live birds (Table 5), with animal feeds showing some sign of competitiveness in export also.<sup>119</sup> Considering this situation one could conclude that it is the feed industry that has been compensating, to some extent, for deficits in other components of the industry.

<sup>118</sup> Figures published by an alternative source covering a period of over a decade but also based on the customs data also confirm that Nepal has indeed been a net exporter of animal feed for at least a decade (DOA 2003). Yet, during the course of an interaction the representatives of the poultry industry contended that the export of feed observed in the official statistics are in fact certain vitamins that are required for animal feed. These vitamins are recorded as medicines while importing and as animal feed ingredients at the time of reexport. Thus the trade surplus in animal feed found in the official statistics is due to this factor. This is yet another indication of the weakness in the existing statistics.

<sup>119</sup> About 95% of Nepal's total feed production (about 205 000 tonnes) is estimated to be poultry feed, followed by cattle feed (4%). The share of the other feeds might have increased in most recent years.



**Table 5: Trade in poultry products and animal feed (in Rs 000)**

	1997/98	1998/99	1999/00	2000/01
Chicken meat				
Import	571	1177	609	286
Export	2577	16437	340	2588
Balance	2006	15260	-269	2302
Live poultry birds				
Import	8655	7221	13293	24141
Export	1602	1670	1750	3617
Balance	-7053	-5551	-11543	-20524
Eggs				
Import	24955	65197	33037	2302
Export	903	1383	741	454
Balance	-24052	-63814	-32296	-1848
Animal feed				
Import	68422	151807	16916	1611
Export	85565	95296	150695	243297
Balance	17143	-56511	133779	241686

Source: Department of Commerce (1999 to 2002)

Table 5 shows trade surplus in chicken meat also, with India being the sole trading partner. Although the data are available for a few years only, this may also be an indication of revealed comparative advantage in this product. A great deal of information is lacking to draw firm conclusions. Thus, while it is known that trade is bi-directional, not much is known about seasonality. Nor is there any information on the origins and destinations of trade within India.

In the case of the eggs, available statistics lump all “bird’s egg” into one product, but most probably these are mostly chicken eggs and the main competitor in the Nepalese market.<sup>120</sup> Information provided by poultry entrepreneurs indicates that egg imports from India take place during summer and monsoon season when domestic demand in India is low. Eggs are imported from as far as Madhya Pradesh. On the export side, the Tibetan Autonomous Region of China is the principal destination for chicken eggs, accounting for almost 80% of Nepal’s total export on average (with a range of 50-95%) in the recent four year period, 1999-2002. Nepal has also exported eggs to India but further analysis is severely constrained by lack of information on the volumes exported, seasonality and export destinations in India.

In so far as Nepal’s position of being a net importer of live poultry birds is concerned, the data in Table 5 need to be supplemented with additional information on the types of birds traded and the direction of trade. The DOC data (DOC 1999 to 2002) indicate that over 50% of the value of live poultry imported is from distant sources like the US and Europe, although India continues to be an important source. India’s share in value terms ranged from as high as 100% in 1997/98 to as low as 40% in 1999/2000.<sup>121</sup>

<sup>120</sup> One exception seems to be in 1999/2000 when Nepal imported eggs from distant places like Brazil, Germany and Hong Kong, most likely fertilized eggs for breeding purpose.

<sup>121</sup> The industry feels that in 1997/98 “dumping” took place – the issue of import surge is discussed below.

**Trends in the import of parent breeding stocks:** By and large, the poultry sector depends on hybrid chicks from pure line parent stocks imported from countries like Germany, United Kingdom, France and the Netherlands, while broiler parents are imported mainly from India. In 2001/02, there were a total of 48 hatcheries in Nepal that together imported 352 000 male and female breeder chicks, 50% more than in the previous year (Table 6). Unfortunately, there is no information – both from the public and private sources - on prices of the products imported. Since “import of commercial chicken has not been recorded in the last couple of years”, in the assessment of the private sector (Lohani 2002), one would assume that live birds imported from India may also be for breeding or rearing purposes. Per unit prices of parent and breeder stocks, which are used for breeding purpose, are generally very high compared with commercial birds. Considering this price differential the country may actually be exporting relatively larger numbers of commercial birds. Thus the negative balance of trade in live chicken could be attributed to this difference in the type of birds traded. A corollary that emerges is that Nepal may also have some comparative advantage in the export of commercial birds and in the export of chicken meat. This is another area in which close monitoring and a deeper analysis is needed before drawing any firm conclusion.

**Table 6: Parent breeder chicks imported by poultry entrepreneurs of Nepal**  
(Numbers in 000 units)

Type of bird	2000/01			2001/02		
	Male	Female	Total	Male	Female	Total
Broiler	25	168	194	41	276	317
Layer	5	35	40	5	31	35
Total	30	203	234	46	306	352

Source: Animal Quarantine Section, DLS.

**The issue of import surges and dumping:** There have been several complaints by the Nepalese poultry industry that Nepal frequently faces import surges of poultry products from India, often with marked negative effects. For instance, the data in Table 5 had shown that the import of live poultry almost doubled in 1999/00 and again in 2000/01. This phenomenon, i.e. sudden and sharp rises in imports, is known as import surge (see Chapter 10 on Import surge). Further, the industry claims that the main reason for the surge is “dumping”, i.e. Indian producers exporting poultry products at below “cost of production”.

Similar allegation is made in the case of the day-old chicks. According to a private sector estimates the import of day-old chicks from India in 1997/98 alone amounted to 7 million birds, or a weekly average of 132 thousand chicks. It is equivalent to one-third of the total domestic supply (Lohani 1998). These imports came from five hatcheries located in West Bengal, Madhya Pradesh and Uttar Pradesh states of India. It is further believed that the Indian producers target the Nepalese market during summer and monsoon seasons when there is a demand slump for chicks in India (Lohani and Amatya 1998). Being surplus, the marginal cost of these chicks is little during those months, and so any export would help the

industry to recoup some of the fixed cost.<sup>122</sup> On those occasions, Nepalese hatcheries are forced to sell at prices far lower their own cost of production, with the result that a number of them, particularly the smaller ones, are becoming bankrupt. One estimate put the total loss to Nepalese hatcheries at Rs 104 million (Lohani 1998). The industry also feels that eggs (white eggs) are also frequently dumped at prices below the cost of production.

## **Current Policies and Emerging Issues**

With new trading opportunities following WTO membership also come challenges, *inter alia* ensuring that laws and policies are WTO compatible. In this context, this sub-section looks at some of the internal policies, legal regime and the associated rigidities that need to be addressed as soon as possible. The discussion is presented in two interrelated parts: support system that influences domestic production, processing and distribution of inputs and outputs, and international trade.

### Domestic regularity and other support system

On the whole, the poultry sector faces the same policy regime as most other commercial agricultural enterprises. It neither receives any special favour on account of policies nor is discriminated against.<sup>123</sup> Yet, there are some specific issues that have implications for industry competitiveness and so worth raising.

***The treatment of the commercial poultry sub-sector as an “industry”:*** This issue has been raised from time to time. Being an industry, and in common with other industries, the commercial poultry sector receives less preferential treatment than enterprises classified as being agricultural and rural. Thus, the sector relies on commercial banks for loan and pays prevailing commercial interest rates. Similarly, income from commercial poultry is subject to income tax whereas agricultural income is tax exempt.

***Local taxes, fees and charges:*** The role of local taxes on the production and movement of various commodities came up as an issue in the course of the surveys conducted for this study. The Local Self-Governance Act 1999 allows local self-governing bodies (villages, districts, cities) to collect taxes. Various local bodies levy this tax on several items including poultry products, feed and feed ingredients such as rice polish, rice polish cake, mustard cake, sesame cake, sunflower cake, wheat bran and poultry feed. Garbage tax is also levied on the collection and transport of raw bone that is used for bone meal, a poultry feed. Entrepreneurs regard these taxes and charges as additional burden that raise cost of production and cut competitiveness.

Also relevant here is the registration requirement. The industry complains that while the direct cost of registration in terms of the official fees and dues is not

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<sup>122</sup> The DoC data show that the total value of live birds imported in that year was Rs. 12.1 million, which gives the per unit import price of the day-old chicks at about Rs. 1.73 per bird. This is considered very low by the industry, indeed less than half the production cost.

<sup>123</sup> For example, like most other agricultural products, poultry meat and egg are exempt from the VAT, and so are most ingredients used in animal feed including poultry feed and other products that are generally used in poultry.

high, indirect costs in the form of the time spent for administrative process and associated “hidden” costs in registering a firm are often high. Although these apply to all commercial agricultural firms, the point is that these expenses are not insignificant in the overall cost of production.

In addition, the Environment Protection Act 2053 (1996) requires any poultry firm with a capacity of more than 2 000 birds to conduct an initial environmental examination (IEE) and environmental impact assessment (EIA) before it is registered. The same applies to subsequent expansion (LBMB 1997). Although desirable, the industry feels that the associated direct and indirect costs of establishment and expansion are high, given the way the government machinery functions. Currently, the approval can be obtained from Kathmandu only. The egg association, NEPA has pleaded to decentralise the IEE and EIA process to the district level (NEPA 2002).

**Issues related to the Animal Feed Act 2033 (1976):** This legal instrument and policies that emanate from it also affect the poultry industry directly. Section 10 of this act empowers the government to set feed quality standards through notification (LBMB 1999). The poultry entrepreneurs hold that the present standards are outdated and irrelevant for the present day commercial operation, and there is a need to update the standards, with active consultation with stakeholders.

The second issue vis-à-vis this law is related to implementation. The regulatory mechanism to check feed quality, although provisioned in the law, is operationally very weak and often exacerbated by insufficient and poorly equipped laboratories for analysis. Due to these weaknesses, imports of low quality and often rejected materials from India find an easy way into Nepal against the spirit of the existing law. Addressing both these issues, which are within the legal jurisdiction of the government, requires active co-operation of the stakeholders. Unless these are effectively addressed, Nepal’s benefits from the WTO membership would be undermined, and indeed Nepal could stand to lose if the current situation continues.

**Animal Slaughterhouse and Meat Inspection Act 2055 (1999):** This Act and the policies that emerge from it have implications on the poultry industry, especially chicken meat sub-sector. Although not enforced as yet, the law has several provisions relevant for the industry. Of immediate concern are its stipulations that: establishment of abattoir and trading in meat without licence is forbidden (Section 3); the government shall establish a slaughterhouse in a designated place<sup>124</sup> in Nepal or issue licence to do so to the non-governmental sector (Section 4); conditions and fees shall be specified for issuing such licence (Section 5); only a university graduate in veterinary science can be designated as meat inspector and supervisor (Sections 6 and 7); all animals must be inspected in a *designated place* prior to slaughtering (Section 8); animals must be slaughtered in slaughterhouses, and where such slaughterhouse does not exist, at a place designated by the supervisor (Section 9); and the meat of the animals so slaughtered should be inspected prior

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<sup>124</sup> The wording of the clause is such that it implies establishment of a single slaughterhouse, which, as is clear from the wordings of Section 9 of the act, is not the intention. Yet, this oversight skipped the attention of all those who were involved in the entire process of legislation.

to sale (Section 10). While these provisions are not inconsistent with the WTO rules, effective implementation should give due consideration to the need for a genuine decentralization in order to address some issues raised by the private sector concerning the import of diseased animals for meat, although this will keep in check meat prices in Nepal.

### Policies Affecting International Trade and Competitiveness

It is clear that the poultry industry is not receiving any direct support except for the limited access to public veterinary services that cover the entire livestock sector. These services are generally confined to a few farms that are close to the district headquarters and are available only if the concerned entrepreneur manages to access the services of the veterinary technician.

Nepal has multiple tariff regimes in operation currently. While most tariffs are on an *ad valorem* basis, some are in specific form also. More importantly, there are a number of “concessions” to published basic customs duties depending on the source of the import.<sup>125</sup> For example, imports from India face no tariffs (i.e. 100% concession), while a 10% discount on the standard rate is applied to imports from the Tibetan Autonomous Region of China, and 5% discount for imports from countries with bilateral trade agreement (provided the products are subject to *ad valorem* tariff).

Agricultural reform duty is levied at a flat rate of 10% *ad valorem* on those agricultural products that face no customs duty. Thus, even those imports eligible for duty free import from India and Tibet are subject to a levy. The purpose of this duty seems to provide some protection to domestic products while remaining within the broad framework of the Nepal-India bilateral treaty, which provides for trade in primary products free from customs duty and quantitative restriction. A local development duty is also levied on importable items at the rate of 1.5% *ad valorem*.

Table 7 shows current applied tariffs and other duties on poultry and poultry products plus feed ingredients. In most products, the applied rate is 10%. In the case of India, while imports are free of customs duty, imports face “agricultural reform duty”, with the same effect as tariff. Duty on parent stocks imported on the recommendations of the Nepal Hatchery Industry Association and on such ingredients as shells of molluscs, feed supplements and limestone is only 1%. Similarly, duty on some of the equipment used in raising poultry and crates used in egg packing are also levied a duty of 1%.

It is evident from the tariff structure that poultry products have some protection as compared to feed. In case of feed, it is somewhat complex to determine the level of tariff protection. There are duties at the rate of 10% for important ingredients such as maize and soybean, and these amount to 56% of the total cost of ingredients. Nearly half of maize used by the feed industry is imported. Considering this situation and the fact that tariffs applied to animal feed, which includes poultry feed, is half the rate for these ingredients, the possibility of the feed industry being negatively protected cannot be ruled out.

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<sup>125</sup> See the chapter on border protection (Pant et al 2004) in this volume for details.

**Table 7: Current applied duties and WTO bound rates on poultry products and feeds**

Products	Current applied tariffs (%ad valorem)			WTO bound tariff (% ad valorem)	
	Customs	ODCs <sup>2/</sup>		Initial	Final <sup>1/</sup>
	Duty	Rate	Removal by:		
Live poultry	10 <sup>2/</sup>	9.5	2013	45	30
Poultry meat –Fresh and frozen	10	4.5	2005	60	40
Poultry meat-cuts and offals frozen	-	-	-	60	35
Feather (for stuffing)	5	2.5	2005	30	20
Maize and Maize flour	10	9.5	2013	50	
Rice bran	10	4.5	2005	50	40
Soybean	10	9.5	2013	50	30
Molasses	25	n.a	n.a	n.a	n.a
Fish meal	10	4.5	2005	50	40
Animal feed	5	2.5	2013	45	30
Ingredients for animal feed	1	n.a	n.a	45	30
Limestone	1	n.a	n.a	n.a	n.a

<sup>1/</sup> For import from India the Basic Tariff figures are replaced by Agricultural Reform Duty @ 10% ad valorem.

<sup>2/</sup> Tariff on the parent stocks imported on the recommendation of the Nepal Hatchery Industry Association is only 1%.

Source: DOC (2001a) and the following years' Finance Bills.

Finally, there are no export duties on any of the poultry products. Two feed ingredients, namely rice bran and molasses, are however subject to export duty at the specific rate of Rs. 0.25 per kilogram.

### **Nepal's WTO commitments**

The key commitments made at the time of accession and relevant to the sector include the following: 'other duties and charges' (ODC) to either incorporate within the tariff structure or do away with such duties and charges as agricultural reform duty and surcharge for local development, by 2013 or 2015 for some. The likely impact of this commitment will be more on industries based on feather and egg, as the nominal ODC will also be removed by 2005.

Border protection to be provided through *ad valorem* tariff only. The agreed initial bound tariffs are in the range of 30-60% for poultry products, to be reduced to 20-50% range by 2006, and from 45% to 30% for animal feeds. As current applied tariffs and ODCs are about half the final bound rate, there is sufficient scope to provide protection to the industry should such need arise.

In addition, Nepal has also committed to amend existing relevant laws rules and regulations to make them WTO compatible (WTO, 2003). Of direct concern to the poultry industry are the laws concerning export and import and customs valuation listed in the legislative action plan of Nepal's submission to the WTO. Nepal also committed to introduce a new law on anti-dumping by July 2004. Parallel to this development, the government is also reviewing the current Food Act 2023 (1966) with an intention to update it to meet the present day requirements.

**Feeds may be a source of comparative advantage:** Nepal is a net exporter of animal feed, and, interestingly, the main export market, India, is also the main supplier of imported feed ingredients. As nearly 95% of the domestic feed produced is poultry feed, most of the “animal feed” reported in the trade statistics implies poultry feed. Given this situation, it would be difficult to confirm that the source of “high” domestic cost of poultry production is indeed the high cost of feed pointed by the private sector. Hence the concern of the private sector regarding free entry of poultry products and high domestic cost of production because the industry is based on imported raw materials for feed production could not be established. On the contrary, available circumstantial evidences suggest that the source of Nepal’s competitiveness in poultry products is its feed industry. This ambiguity is yet another example of a lack of dependable information.

This implies that Nepal should explore for the cheapest possible source of feed ingredients, which need not be India since Indian markets are highly regulated. For example it could be cheaper to import soybean, produce soybean oil as well as soy meal within Nepal also. If the size of import consignments is a constraint, concerned associations may need to pool resources for bulk buying from the cheapest source and at times when prices are the cheapest, for being and remaining competitive.

**Diversification of export markets:** Nepal currently exports live poultry, and meat and edible offal of poultry although the export of the former has declined significantly due to growing domestic demand. However, potentials exist to expand domestic production and export of poultry products to neighbouring countries such as the Tibet region of China while trading with India is likely to be governed by bilateral agreements. WTO membership will further expand that opportunity if the Nepalese producers can effectively compete in the international market.

## CONCLUDING REMARKS

One key message of this study is that Nepal’s poultry sub-sector in general and the poultry industry in particular is one of the fastest growing segments of the economy, and that the potential for further growth of the sub-sector for both domestic and export markets appears to be high. Despite some two-way trade with India, a feature common to many commodities, the country is considered to be “self-sufficient” in poultry products as a whole. While Nepal could be a net exporter of meat and feed, it is a net importer of eggs. The following paragraphs summarise some of the main issues that need to be addressed in order to realise these potentials.

**Statistics:** A recurring point made throughout the chapter is the wide variation in all major statistics, e.g. poultry and feed production and trade volumes, between the private sector and government source. This serious lack of quality statistics not only hinders sound policy making and planning but also trade negotiations when disputes, such as on import and export surges, arise between trading partners. Addressing this problem is fully a government responsibility. The specific areas where information was found to be weakest were: *volumes* of imported products *disaggregated* by product type, customs points from which the products are

imported and exported, seasonality of external trade in various products and cost of production. As various government agencies are already collecting closely related information, e.g. Departments of Customs and of Agriculture, CBS, Nepal Rastra Bank, the incremental cost of collecting appropriate information would be rather marginal. What is required is for the MoAC to take the lead in ensuring that the required data are collected by these agencies. Also very importantly, what is usually forgotten that the private sector can make valuable contribution to this process since it is also in their own interest to ensure the accuracy of statistics.

**Implications of the WTO Agreements:** The discussion in the preceding Section had shown that the WTO membership does not constrain any government policies and programme towards the poultry and feed sub-sectors. As regards the implications of the membership, the main instrument available for protecting the domestic industry is tariff. With bound rates some 3-4 times higher than currently applied rates, there is a considerable scope for tariff protection, if that is feasible and makes economic sense. However, tariffs are not first-best policies, and there is no alternative to be competitive in both price and quality. The analysis in this chapter suggests that the industry should be able to compete even without tariff protection.

The fairly large gap between the applied and bound tariffs also provides ample scope to vary applied rates up to the bound rate when faced with the problem of import surge. The problem is that all these instruments are effective only in the case of trade with third countries, as Indo-Nepal trade rules are governed by the bilateral agreement. On domestic support measures also, the AoA provides considerable scope for granting subsidies to the poultry sector (e.g. up to 10% of the value of production). The issue, however, is one of the availability of budget for this and equally importantly the desirability of doing so in the context of competitiveness objective as noted here.

**Policies, laws and WTO membership:** In general, neither the existing policies nor the laws discriminate between a domestic and imported product, and so the policies are consistent with the WTO TRIMS Agreement. On the legislative front, however, some of the existing laws may need amending to harmonise them with the requirements of the various WTO agreements to which Nepal is a party. A set of laws to address trade related intellectual property rights might need to be brought into force. In doing so, care has to be taken to safeguard the interest of the country in terms of realising benefits from the existing biodiversity and to safeguard the farmers' interest. To be compatible with the various agreements that are part of the WTO accession process, the following additional legal instruments may be required: improving legal provisions relating to food quality, plant and animal quarantine, and legal provisions on TRIPS and other related rights. Similarly, legal provisions arising out of the WTO and other international treaties should also be made for regulating genetically modified organisms, for implementing the Convention on Biodiversity, and for protection against dumping. With regard to the poultry industry, provision of an anti-dumping law and its effective implementation should clearly receive priority. The country should start preparing for trading of poultry products in countries other than India, especially the Tibetan Autonomous Region of China, in



the medium to long run, and for this the country has to develop requisite capacity to compete internationally. The country's export would have to meet internationally accepted quality and standards while being price competitive.

**Responding to the problem of import surges:** The statistics on this phenomenon discussed in the preceding section clearly showed that Nepal faces this problem frequently, notably in case of day-old chicks and eggs. The industry seems to have a fairly good idea of the source of the import surge, reasons and the impact on the Nepalese poultry industry. By contrast, there has been very little response from the government side, e.g. in collating statistics, analysing the impact and responding to the problem.

As discussed in Chapter 10: Import Surges, this problem is recognized by the WTO Agreements and there are several provisions on trade remedy measures. In the case of Nepal, there are many problems in responding to the problem. First, available statistics are patchy and weak to even establish that import surges have occurred. While the main source of the surge is India, there are no volume data on imports, which are essential because a surge cannot be established on value data on imports. There are no price or unit import value data either. Second, as discussed in Chapter 11: the Nepal-India Trade Treaty does not have an objective basis for establishing a surge nor for responding to the problem, other than discuss the matter with India at periodic trade meetings.

While the above reflects the ground reality for Nepal, it is true that the WTO framework provides at least three trade remedy measures (e.g. anti-dumping). The problem is that resorting to these measures is very demanding in terms of statistics, institutional capability and legislation, all missing currently in Nepal. Nepal does not have access to the simpler agricultural safeguard of the AoA, although Nepal would have access to the presumably similar Special Safeguard Mechanism being negotiated as part of the Doha Round, once Nepal completes accession implementation period. Even more important, these instruments will not be useful for the problem being discussed here because the surges are coming from India under a bilateral trade agreement with its own provision on safeguard measures, as said above.

Thus, Nepal is basically very vulnerable to the problem. Although it is a long way ahead, it is urgent that Nepal makes efforts without any delay in at least the following two areas: i) to put in place a statistical system that helps in monitoring trade and import surges; and ii) to develop capability to quantify the impact of the surge. These together would provide credible evidence needed for discussing the matter during bilateral trade meetings, as well as in the WTO context. Other related measures needed include enacting appropriate legislation.

The planned introduction of the anti-dumping law and its effective enforcement may be able to address some of the concerns in this respect. Similarly, effective enforcement of the existing legal provisions concerning animal quarantine may be able to address the issue of imported unhealthy buffaloes that are contributing to depress chicken meat prices as has been raised by the NEPA. By the same to-

ken, it will be unrealistic to assume that these measures will be able to fully nullify the forces of the market especially considering the open porous border.

The localized nature of import surges, i.e. surges in one area and surplus in others, indicates weak integration of the domestic markets. Increased integration obviously reduces the magnitude of the negative impact. So one of the response measures would have to be integrating domestic markets. This is not a simple task and requires efforts in a number of areas, notably transport infrastructure, especially rural roads, provision of market information and abolition of measures that hinder movement of goods across Nepal. The strengthening of vertical and horizontal linkages also helps, e.g. linking the feed industry with soybean oil industry.

**Competitiveness with Indian suppliers:** Besides being an advantage in many respects, the long and porous border with India has also been a source of disruption to Nepalese agricultural markets. It is well known that India has a competitive edge over Nepal in many agricultural products, on account of factors such as much more developed infrastructure and economic base in all respects, substantial subsidies provided to the Indian farmers and the fact that Nepal has to bear extra transport cost on imported raw materials. Moreover, the immense size of the Indian market relative to that of Nepal means that Nepal is effectively a price taker with little room for influencing domestic relative prices. The question is what can be done to be competitive given these parameters? One aspect is being import-competitive, i.e. being competitive with Indian poultry products in the Nepalese market itself. The other is responding to occasional import surges.

**Analysis of effective protection to various sub-sectors:** The poultry industry as a whole includes several products and production processes. Many products of a sub-sector are also inputs to other sub-sectors. Given this, nominal tariffs – e.g. applied rates or bound rates – provide only partial information on the state of protection or taxation of the commodities and sub-sectors. For example, where feed ingredients, feeds and poultry products are taxed at different rates; it is difficult to determine the exact level of protection to a commodity, e.g. eggs or live poultry. Therefore, some analyses are required on the levels of protection given by policies to all major outputs of the poultry industry. This information is valuable for informed debates on policy issues and to answer such questions as the following. Whether poultry products are essentially taxed because of the taxation on feeds? Should Nepal provide uniform effective protection to all poultry and feed products or to protect them selectively?

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