

## **THE SPS AGREEMENT: TRADE IN LIVE ANIMALS AND ANIMAL PRODUCTS**

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With the prohibition of quantitative controls on trade and gradual reduction of the bound tariffs, non-tariff trade barriers will increasingly become important for trade in the coming years. For agricultural products, the most notable non-tariff barriers are technical standards covered by the SPS/TBT Agreements. This is more so for developing countries where food standards are much poorer. Recent experiences amply show that even when the developing countries are competitive in price, exports have been inhibited by standards, particularly to developed country markets. Moreover, while lower income countries may get preferential treatment on tariffs, there is no such preference when it comes to food standards.

The paper is based on a number of sources and previous works in this area in Nepal and elsewhere. It also benefits from extensive discussions with many stakeholders in Nepal, e.g. government officials, various livestock and dairy boards and associations, and livestock industries and veterinary chemists. An extensive review of relevant legislation was also undertaken.

This is one of the three papers that address SPS issues. It focuses on trade in live animals and animal products. The chapter provides an overview of SPS Agreement with special focus on livestock issues followed sequentially by an account of Nepal's livestock sector and SPS-related trade experiences; a brief review of relevant policy, legislation and institutional arrangements. The paper concludes with some recommendations.

### **THE SPS AGREEMENT AND TRADE IN LIVE ANIMALS AND ANIMAL PRODUCTS**

The SPS Agreement<sup>37</sup> recognises the International Office of Epizootics (OIE) as the relevant international organisation responsible for the development and promotion of international animal health standards, guidelines, and recommendations affecting trade in live animals and animal products. Similarly, the official (Public) Veterinary Services of a country are recognised as the relevant authority with ultimate responsibility for animal health matters involving international trade in live animals and animal products.

The functions of OIE are accomplished through the publication of the Terrestrial Animal Health Code (previously known as International Animal Health Code), the Manual of Standards for Diagnostic Tests and Vaccines, and the Aquatic Animal Health Code and the Manual of Diagnostic Tests for Aquatic Animals. Basically, the Terrestrial Animal Health Code defines the animal health standards that

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<sup>37</sup> See the first Section of Chapter 5 of this volume for an overview of the SPS Agreement.

all WTO Members have to comply with when trading live animals and products of animal origin. At the same time, the Code contains the fundamental principles of the quality of National Veterinary Services that shall be conformed, regardless of the political, economic or social situation of the country. The Manual of Standards for Diagnostic Tests and Vaccines describes the standards for the laboratory diagnosis of all diseases covered by the OIE, and the protocols for the production and quality control of biologicals for veterinary use. The Aquatic Animal Health Code and the Diagnostic Manual for Aquatic Animal Diseases contain equivalent standards for aquatic animals such as fish, molluscs and crustaceans.

The OIE provides detailed Guidelines for the Evaluation of Veterinary Services (Chapter 1.3.4. of the Terrestrial Animal Health Code). According to these guidelines, the national Veterinary Services should be able to demonstrate capacity, supported by appropriate legislation, in the following areas.

- Exercise control over all animal health matters. These controls should include compulsory notification of prescribed animal diseases; inspection of animals, animal products, products destined for animal feeding, products destined for prevention, treatment or diagnosis of animal diseases, animate or inanimate vectors of diseases, premises, equipment, facilities and means of transportation in contact with animals and or animal products, related documentation; movement control including registration of holdings and animal identification; quarantine of infected premises/areas; testing, treatment, destruction of infected animals or contaminated materials; controls over the use of veterinary medicines, etc. The scope of the legislative controls should include domestic animals and their reproductive material, animal products, wildlife as it relates to the transmission of disease to domestic animals, and other products subject to veterinary inspection.
- Prescribe methods for control and to exercise systematic control over the import and export processes of animals and animal products in so far as this control relates to sanitary and zoosanitary matters.
- Control imports and transit of animals, animal products and other materials that may introduce animal diseases.
- Present a functional animal disease reporting system which covers all regions of the country
- Provide accurate and valid certification for exports of animals and animal products.
- Authority to deny and/or withdraw official certification and penalty provisions applying to malpractice on the part of certifying officials.
- Effective responsibility for the veterinary public health programmes relating to the production and processing of animal products, especially for export and effective monitoring and control of zoonotic diseases.
- Control over chemical residues in exported animals, animal products and feed-stuffs.
- Effective controls (including nationwide consistency of application) over the registration supply and use of veterinary medicines, biologicals and diagnostic reagents.

## NEPAL'S LIVESTOCK SECTOR AND SPS-RELATED TRADE EXPERIENCES

### The livestock economy of Nepal

About 80% of Nepal's 23 million people are engaged in subsistence-oriented agriculture, based on integrated crop-livestock or crop-livestock-forest farming systems. Farmers keep livestock to provide essential support for agriculture production (draft power and compost), nutrition for the family (milk, meat and eggs are an important part of diet), and household income (from sales of animals and products). Livestock is also as an asset that provides a buffer against risk/adversity, and enables the owner to participate in social and religious obligations. Livestock farming is closely interrelated with crop production, forest management, the management of communal lands and remote area transportation. Women undertake 70% of the work and make many of the daily decisions associated with livestock keeping.

In 1999-2000, there were approximately 7 million cattle, 3.6 million buffalo, 0.85 million sheep, 6.3 million goats, 0.88 million pigs and 18.6 million poultry birds in Nepal. Nepal has one of the highest livestock populations per capita and per unit of cultivatable land in Asia. On average, three in every four households keep cattle, while about half of all households keep buffalo, goats and chickens. Pigs and sheep are also important in some regions. Smaller farmers and landless people tend to be more dependent on animals for their income. Women play a significant role in the management of livestock.

In terms of growth of animal population in the 12-year period to 1997/98, the highest has been of poultry (79%) and pigs (72%) while it is slower in other animals (goats 21%, buffalo 18% & cattle 11%). Sheep numbers are static (due to disruption to transhumant livestock movement across border) as are yak (as traditional herders are attracted to other sources of income e.g. tourism and foreign work). Reliance is on local breeds of low productivity that are adapted to the environment. The official data show that improved livestock breed accounts for only 8% for cattle, 21% for buffalo, 6% for sheep, 14% for goat, 40-77% for pigs and 50% for poultry. These numbers are increasing as farmers introduce new animals and use improved semen, notably in accessible areas where they respond to market signals.

Commercial livestock production is mainly small scale except for poultry. The poultry industries are developed by the private sector with investment of more than Rs 15 billion in hatcheries, commercial broiler and layer farms, and feed mills. The commercial pig industries are small but expanding. The marketing of live animals and meat is entirely private sector based and works reasonably effectively although quality standards need improvement. Milk marketing is divided between locally produced and processed milk and that reconstituted from imported milk powder. There are marked seasonal differences in production and access supply occurs in some months in the organised milk marketing system. Seasonal surpluses are converted to ghee where milk collection is not possible.

Despite very high population densities, livestock and products are not traded much and account for about 11% and 6% of total agricultural exports and imports (and only 0.24% of all total export and 1% of all imports). The livestock sector contributes about 31% of the agricultural GDP (AGDP), which is projected to rise to

45% by about 2015, the end of the Agriculture Perspective Plan. Within livestock, dairy accounts for 63% of the total value added, followed by meat (32%) and eggs (5%). Income from livestock as proportion of total income is particularly high and valuable for poorer farmers (about 20% of total income). As regards farm investment, farmers' own investment in the sector has increased from an average of Rs 1305 per household in 1997/98 to Rs 4266 in 2001/02. The data show that smaller (or lower-income) farms make higher investment than larger farms.

### **Relevant livestock policies**

Policy pronouncements concerning livestock production, marketing of livestock and livestock products and animal health services are found in the Ninth and Tenth Plans, the APP and the Ten-year Dairy Development Plan (1990-2000). The Ninth and the Tenth Plans focus on launching of targeted programmes consistent with their objective of poverty alleviation while the APP has identified livestock sub-sector as a priority area for accelerating agricultural growth. The Ten-year Dairy Development Plan focuses on accelerating production of dairy products. The Tenth Plan has also emphasised promotion of livestock marketing, and meat and milk processing industries in the private sector besides a significant increase in milk, meat and egg production.

A particular policy objective is the privatization of veterinary clinical and artificial insemination services. These services, which farmers mostly encounter, are provided by "paravets" such as Junior Technicians (JTs), Junior Technical Assistants (JTAs) and Village Animal Health Workers (VAHWs). Most of the paravets, which provide basic but essential services are already part of the private sector. The DLS has established a revolving fund in each DLSO to provide interest-free loan of Rs 18,000 to paravets for buying veterinary drugs and equipment. The loan is repayable over three years. There is also a business management and refresher training package for the private sector JTs and JTAs.

### **Two recent SPS-related experiences in the export of livestock products**

In recent years, Nepal has not experienced any SPS-related problem in exporting to India animals (cattle, buffaloes, goats, pigs and chickens), animal products (raw milk, meat, eggs, ghee, leather and *chhurpi*), animal feed and feed ingredients. However, two standards-related difficulties were encountered recently, one in the export of butter to China and the other in the export of honey to Norway.

#### Butter export to China

A Chinese trader from the autonomous region of Tibet wanted to import butter from Nepal's Dairy Development Corporation (DDC). After receiving his application for import permit, the Chinese authority acquired the following information from Nepal:

- Report of epidemic situation and relevant information system
- Report of control and eradication of Foot and Mouth Disease and cattle plague
- Data regarding epidemic monitoring

- Processing technology of different kinds of dairy products, especially technical details such as temperature, pressure and duration
- Sample copy of Veterinary Certificate

The Chinese authority was not convinced with the information provided by the DDC and the official Veterinary Services. They were concerned about quality control procedures and expressed their willingness to visit Nepal to get first-hand information regarding milk collection and processing system. As a result, this trade suffered.

### Honey export to Norway

In the course of efforts made to export honey to Norway, a team of officials from Norwegian Veterinary Services visited to get acquainted with Nepal's production, processing and quality control systems of honey. They were surprised to find that there was no control system at all on the use of drugs in bees, as well as inspection and certification system for honey by official Veterinary Services. As a result, Nepal was not able to export honey to Norway.

## **REVIEW OF RELEVANT LEGISLATION**

Many legislations impact, directly and indirectly, on the production, marketing and trade of livestock in Nepal. This section identifies and analyses, very briefly and on a selective basis, the most relevant legislative provisions. The underlying purpose is to identify the appropriateness of existing legislation in the context of the SPS Agreement.

***Animal Health and Livestock Services Act and Regulation:*** In its preamble, this Act states that the aim is to develop livestock industry and to provide for healthy production, sale, distribution, import and export of animals, animal products and animal production inputs. Section 2, Part 1, defines some key words. Thus, the term "animal" is defined as all kinds of domestic or wild animals, birds and fish. "Animal production inputs" is defined to mean, "processed and unprocessed material used in animal health or artificial insemination and other biological products". "Biologicals", in turn, are defined as meaning bacteria or virus containing vaccines or medicines or biological materials used for the development of livestock and animal health. "Animal products" are meat, blood, animal fat, bile, milk, egg, bone, hide, horn, hoof, feather, wool, fur, hair, embryo, semen, glands, dung, urine or unprocessed materials made from such items.

Part 2 of the Act is concerned with the establishment and management of animal quarantine (Section 3). Section 8 authorises the government to frame rules prescribing terms and conditions to be followed by traders in exporting and importing animals, animal production input and animal products. A quarantine officer may prohibit entry of animal or animal production inputs or animal products if the importer fails to submit the prescribed certificate (Section 11). The Act provides authority to order to return such animal or animal production inputs or animal products to the country of origin, or to auction, remove or destroy (Sections 12-14).

Part 3 of the Act deals with breeding management in the context of conserving the country's animal genetic resources. Part 4 deals with establishment of certain industries, such as for biological production, hatchery, animal feed mill and meat processing. A letter of recommendation from the specified authority is needed for establishing an industry (Section 17) or for the import and export of biologicals, chicks, fingerlings, and animal feed (Sec.18), as well as a licence to sell biologicals, chicks, fingerlings or to establish meat processing industry (Sec. 19); the quality and standard of these "shall be as specified" (Section 19 (2)).

Part 5 deals with the penalties for violation of the Act (Section 20), investigation and filing of cases (Section 21) and appeal procedures (Section 24). Part 6 deals with miscellaneous matters. Section 25 authorises the government to appoint or to designate any government officers as veterinary inspectors in order to inspect the quality and standard of veterinary drugs and biological products. Section 28 gives power to the head of the DLSO to inspect animals, animal products or animal production inputs at any place and any time in suspect of infectious disease. Section 17 empowers the government to make regulations under the Act.

The Animal Health and Livestock Services Regulation 2056 was approved to implement the Act. The Regulation addresses a wide variety of matters such as requirements for the establishment of animal quarantine, quarantine inspection procedures, standard setting process, procedures for obtaining letter of recommendation and licence; and duties, responsibilities and authority of quarantine officers and veterinary inspectors in detail. Also, it specifies the designated authority, disinfection procedures, list of notifiable diseases and the forms to be used for different procedural purposes such as health certification, letter of recommendation and licensing.

***Slaughterhouse and Meat Inspection Act and Regulation:*** The Act was enacted with a view to protecting public health from adulteration of meat and from other activities that affect meat quality. The Act also provides for the establishment of slaughterhouses. It has provisions for licences to be obtained from concerned agencies before any person can operate a slaughterhouse. Similarly, the Act provides for meat inspectors and has authorised them to inspect the quality of meat and livestock. Further, to supervise the activities of meat inspectors, the Act has established the position of meat supervisor. The Act provides that livestock shall be inspected before and after slaughter. It also requires that a stamp be affixed on the meat after its inspection and before its sale to consumers. Penalties under the Act consist of fines ranging from Rs 5,000 for a first-time violator to a Rs 10, 000, one month's imprisonment or both to a second-time or subsequent violator. The Slaughterhouse and Meat Inspection Regulation 2057 elaborates the procedural steps under the Act.

***Nepal Veterinary Council Act and Regulation:*** The Act establishes Nepal Veterinary Council to "systematize the veterinary profession by making it efficient", and to register veterinary practitioners according to their qualification. The word "veterinarian" means a person holding a bachelor's degree in veterinary medicine from a recognised institution. The term "veterinary drug" is also defined for the Act's purposes to mean: "any medicine, hormones or biologicals used for diagnosis,

treatment and control of animal diseases, including proteins, minerals or vitamins used in animal feeds”

The Council’s main role relates to the management of the veterinary profession, but it is also authorised to advise the government on policies and programmes on animal health services, in preparing criteria for “standardising” veterinary drugs, biologicals animal feed and animal production inputs. Part 3 of the Act deals with the registration of veterinary practitioners. It provides that no person who has not been registered under the Act may carry out veterinary practice. This is a wide prohibition, and the term “veterinary practice” is not defined by the Act. Much of the rest of the Act deals with the machinery of the Council. The Veterinary Council Regulation 2057 elaborates the procedural steps under the Act.

**Drugs Act:** This Act aims at prohibiting the misuse or abuse of drugs and false or misleading information about drug efficacy and use, and at controlling the production, import/export, storage, distribution, sale and use of drugs “which are not safe for use by people, efficacious and of standard quality”. The preamble, therefore, states the generally accepted aims of regulating the supply of drugs, i.e. to guarantee their quality, safety and efficacy, but it also shows that the main concern of the legislation is use of drugs on humans. The Act comes in seven Parts: Preliminary; Drugs Consultative Council and Drugs Advisory Committee; Research and Control of Drugs; Manufacture, Sale, Distribution and Import of Drugs; Standards of Drugs Quality; Inquiry and Inspection; and Miscellaneous.

The Act defines the word “drugs”, broadly, to mean four types of things:<sup>38</sup>

- Any substance intended to be used in the “diagnosis, cure, mitigation, treatment or prevention of disease in human beings, animals or birds”, or
- Any substance intended to be used “for the destruction of vermin or insects which cause disease in human beings, animals or birds”, or
- Any article “intended to affect the structure or any organic function of the body of human beings, animals or birds”, or
- Such ingredients or components intended for use in the preparation of such drugs.

**Animal Feed Act and Regulation:** According to the preamble, the Act was enacted in order to prevent the adulteration of feed materials, to maintain the quality of animal feeds, to prevent the adulteration of animal feeds and to prevent activities that reduce the quality and utility of animal feeds. Section 3 prohibits the production, sale and distribution of sub-standard feed materials. Section 4 also prohibits the fraudulent sale and distribution of sub-standard feed materials, which are claimed to be standard or high quality feed materials. Section 6 permits the seizure and impoundment of sub-standard feed materials by the government food control agency (DFTQC). Section 7 provides that licence must be obtained by any person who manufactures, and sales, distributes, and stores feed materials. Section 8 establishes penalties for violation of the Act. Section 10 gives powers to the government to prescribe the quality and standard for feed materials. Section 11 provides

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<sup>38</sup> As can be seen, the word “drugs” covers drugs for use on human as well as on animals, however it is apparent from other Parts that the Act focuses mainly on human drugs.

that examination of sub-standard feed materials shall be carried out by prescribed laboratories. Section 12 authorizes the government to form a feed standardization committee. Section 14 provides that the public prosecutor will prosecute cases under the Act. Section 15 provides that the CDO (Chief District Officer) be given jurisdiction to try to decide cases prosecuted by the public prosecutor under the Act. Section 16 establishes a right of appeal against decisions of the CDO to the Appellate Court. Section 17 empowers the government to elaborate rules under the Act. The Animal Feed Regulation 2041 elaborates the procedural steps under the Act.

**Nepal Standards (Certification Mark) Act:** This Act was enacted with the purpose of establishing a system for the development of national standards and affixing of certification marks. The definition of goods under the Act is very broad and covers all types of goods including manufactured, processed, semi-processed or unprocessed food and feedstuffs.

**Local Self-Governance Act:** This 1999 Act was enacted with a view to promoting a conducive environment for the enjoyment of democracy through the utmost participation of people in the process of governance by way of decentralization. Its provisions having to do with livestock include Section 28 (a) which authorises VDCs to run veterinary clinic and pasture management within the VDC area, Section 96 (j) that authorises municipalities to control stray animals and rabid dogs, to arrange for the establishment of slaughterhouses and management of slaughterhouses. Section 189 (a) of the Act provides authority to the DDCs to formulate district level livestock development policy and, based on this, to: i) prepare and implement programmes; ii) monitor or arrange for monitoring the implemented programmes; iii) provide or arrange for providing agriculture extension services; iv) make available or arrange for the availability of agricultural inputs; and v) manage or arrange for the management of agricultural markets.

In conclusion,<sup>39</sup> the main Acts that are relevant in the context of the SPS-related issues are the Animal Health and Livestock Services Act, the Drug Act, and the Animal Feed Act, as well as the Pesticide Act (currently under review) and the Nepal Standards (Certification Mark) Act. The first of these, including the corresponding Regulation, is the basic legislation dealing with animal health aspects of the SPS Agreement. The legislation is new, and so carrying out its principles, setting national standards and implementation procedures are still in early phase. Also importantly, various terms defined in this Act and Regulation are not consistent with the definitions made in international standards referred to by the SPS Agreement. Also, functions, duties and rights of veterinary administration at different levels are either not described or done so inadequately.

In the Drugs Act, the term “drugs” is widely defined to cover the drugs used on human as well as animals. However, it is apparent throughout the Act and its Regulations that the real purpose is to deal with human drugs, and most references are to “physicians” and “patients”, without corresponding references to “veterinarians” and “animals”. There is no provision for veterinary expertise to be included in

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<sup>39</sup> One other legislation that is of high relevance in the context of the SPS Agreement related to livestock is Pesticide Act 1991, currently under review.



the decisions on manufacture, import, distribution and sale of veterinary drugs. Thus, the problem is that these legislations do not fully take into account and address “special considerations” that apply to animals.

The Animal Feed Act and its Regulation cover only finished animal feeds. The preamble of the Act explains its underpinning philosophy, which reflects a disciplinary approach rather than a collaborative and preventive approach. Finally, the Pesticide Act is an area where overlaps can occur with veterinary drugs. Although the strength of the chemicals used to treat animals against ticks, mites and other external parasites is different from when they are used to treat crop pests, farmers commonly use the same product on both. There is an obvious risk of overdose, with consequential harm to animals and to human consumers of their products.

## **REVIEW OF THE INSTITUTIONAL ARRANGEMENTS**

In the context of the SPS Agreement, the relevant institutions are those that deal with both legislations and substantive policy/programme aspects related to animal health, animal production, production of feeds and inputs, products of animal origin and veterinary aspects. What follows presents a brief account of the institutional arrangements in Nepal, those that must eventually implement the SPS measures.

***Department of Livestock Services (DLS):*** The DLS is responsible for enforcing the Animal Health and Livestock Services Act and Slaughterhouse and Meat Inspection Act. It is divided into four central level directorates each responsible for an aspect of the department’s activities: i) Animal Production; ii) Animal Health; iii) Livestock Marketing Promotion; and iv) Training and Extension. Within the Animal Health Directorate are one Central and five Regional Veterinary Laboratories, the Rabies Control and Veterinary Public Health Section, the Central Veterinary Hospital, the Biological Products Division, the National Foot and Mouth Disease Control Section, the Animal Quarantine Section and 24 Animal Quarantine Check-posts. Many of these units are decentralized with offices and staffs extending all the way to the village levels.

In each district, one veterinarian is designated as veterinary inspector. The inspection service is new and procedures for carrying out inspection of animal production system, animal production input and animal products are still evolving. Recently, compulsory standards for hatcheries and poultry breeding farms and transportation of live animals have been established and some more are in the process of drafting. Two quality control laboratories have been established, one under the Directorate of Livestock Production to provide basic analytical services for animal feed and livestock products and another under the Directorate of Animal Health to test the quality of veterinary vaccines and other biological products.

There are six veterinary laboratories, five of them regional and one central, to deliver veterinary investigation services. In addition, each of the 75 district level livestock offices has some basic laboratory facility. There is also a National FMD Control Laboratory to investigate outbreaks of FMD and to establish epidemiology of the disease in the country in order to formulate national control strategy. This

laboratory was established to produce FMD vaccine; however, vaccine production has not started yet. Recently, a National Avian Disease Investigation Laboratory has been established in Bharatpur, Chitwan, but the laboratory is not fully equipped and staffed as yet.

The animal quarantine network consists of one Animal Quarantine Section at the central level and 24 Animal Quarantine Check-posts - two internal along the national highway, one at the international airport, one at the Sino-Nepal boarder and 21 along the Indo-Nepal border. Each check-post is staffed with one Quarantine Officer, two JTs and two peons.

There is a well-established and efficient animal health information system. Appropriate disease reporting formats are used for active and passive surveillance, which meet OIE standards and requirements. The Central Epidemiology Unit maintains a computerized national database containing information received from the field. The unit publishes quarterly and annual reports on animal disease status that are circulated among livestock and veterinary related institutions. This unit also acts as the secretariat for the official designated as the OIE delegate (currently the Director-General) and thus is responsible for reporting the status of animal diseases to the OIE as per commitments of the member countries.

As authorised by the Animal Health and Livestock Services Act, the Director General has set up an advisory committee for issuing Letter of Recommendation in order to prohibit, limit, restrict or regulate export and import of biologicals, chicks, fingerlings and animal feed. Also, committees have been set up for establishing the standards of products of animal origin, animal production input, biologicals, chickens, fingerlings, and their means of transportation. Similarly a system has been introduced recently for issuing International Veterinary Certificates describing the animal health and/or public health requirements, which are fulfilled by the exported commodities.

A recent development in the Department of Livestock Services structure is the establishment of a Directorate for Livestock Marketing Promotion. This Directorate will include sections for the promotion of milk, meat, skin and wool, animal markets, and a market information and analysis section.

**Department of Food Technology and Quality Control (DFTQC):** This Department under the MoAC is responsible for enforcing the Food Act, the Animal Feed Act and related Regulations. At the central level, it has Food Quality Control Division, National Food Laboratory, Food Technology Development and Training Division and National Food Nutrition Programme Section. At the regional level, there are five Regional Food Laboratories; however the DFTQC has no representation at the district level and border points.

Under the Animal Feed Act, there is a provision of an Animal Feed Standardisation Committee to establish standards. Currently, the Director General of the Department of Livestock Services chairs the committee. The DFTQC implements the standard and carries out laboratory tests for conformity with the standards.

**Department of Drug Administration (DDA):** The DDA under the Ministry of Health carries out all the functions relating to the control of drugs under the Drugs Act and Regulations. Its national office comes under the authority of the Chief Drugs Administrator. It has also offices at regional levels, but not at the district levels. The DDA has technical committees for drug evaluation and registration, and a Drug Registration Section and Inspection Section. Where a new veterinary drug is involved, the DDA practice is to seek views of the Department of Livestock Services. Any necessary testing of drugs is carried out by the Royal Drug Research Laboratory or other approved government laboratories. Vaccines and biologicals, for example, are tested by laboratories under the Department of Livestock Services.

**Nepal Bureau of Standards and Metrology:** This Bureau, under the MoCS, is the national standards body of the government. It is responsible for the implementation of the Nepal Standards (Certification Mark) Act, and sets standards on all consumer goods. Some national standards established in the area of livestock sector include: code of hygienic condition for dairy industries (NS 208-2046); minimum requirements for meat shop (NS 48-2041); poultry feed (NS 11-2037); animal feed (NS 14-2037); bone meal (NS 26-2040); feed for pigs (NS 250-2048); test method for determination of nitrogen residue in meat and meat products (NS 63-2041); test method for determination of pH in meat and meat products (NS 75-2041); test method for determination of salmonella in meat and meat products (NS 81-2041); sampling method for milk and milk products (NS 153-2044); general guideline for microbiological laboratory (NS 364-2053); and test method for determination of coliform bacteria in foods (NS 187-2045). These standards are voluntary and it is up to the industry to adopt these.

The NBSM issues licences to manufacturers to use Nepal Quality Certification Mark (NS) on products after inspections of premises, operating manuals, labels and samples. Inspectors at the NBSM carry out inspections on an ongoing basis to ensure conformity to standards; often the inspections are done unannounced. The NBSM also accredits private laboratories under Nepal Laboratory Accreditation Scheme.

**Local Bodies** (Municipalities and DDCs): The Local Self Governance Act has authorised Municipalities and District Development Committees to take necessary measures to ensure the safety of consumers goods, to ban the public use of items harmful to public health and to remove such harmful things or objects. However, except for Kathmandu Metropolitan City, Biratnagar Sub-metropolitan City and Hetauda Municipality, no other Municipalities and DDCs have taken the initiative to discharge their responsibilities in this regard.

In conclusion, this review shows that the DLS has a highly structured system for carrying out its functions. The system is also decentralized, reaching all the way to the village level. Thus, it may be said that there is a system for supervising all aspects of animal health and quality assurances at all levels (production, processing and marketing).

On the other hand, the structures of some complementary institutions such as the DFTQC and the DDA are rather “top heavy”, in that most of their capacities are found at the national level, where decisions are made on registration, licensing and standards and there are no representations at the district level and border points. As a result, the present institutional arrangements for the control of veterinary drugs and animal feed may not be as effective.

The current organizational structure of the Department of Livestock Services was developed when there was no veterinary legislation and the Department was mainly involved in enhancing livestock production and productivity in the country. The animal health policies mainly aimed at providing clinical services through the district veterinary hospitals and service centres/sub-centres and at preventing catastrophic disease losses through specific disease eradication programmes. Therefore, the DLS will require redefining its roles and reforming its structure in order to perform new roles effectively and efficiently without adding financial burden to the government.

## **CONCLUDING REMARKS**

**Basic principles of reform:** In the post WTO accession era, one important task is to work towards ensuring the consistency of the detailed OIE recommendations for policy, legislative and institutional reforms (listed at the end of Section 1). These standards may need to be adapted with particular needs of Nepal.

**Policy reforms:** It is a major responsibility of the government to ensure that its policies and programmes encourage livestock production that meets minimum technical standards. In this regard, a number of policy issues require attention. These include: (i) establishing a level playing field for livestock industries which are treated differently from agro-industries in matters such as VAT, tax exemption, discounted electricity charges, bank interest rates and import duties; (ii) effective enforcement of various Acts for product quality control, hygiene and environmental management; (iii) closer monitoring of border issues such as the impact of taxes and subsidies on trading of commodities, materials and services; (iv) development of stronger cross sector linkages between line agencies for more effective delivery of services at the ‘grass roots’ levels (v) meeting international norms for veterinary services, and required quarantine and quality standards; and (vi) privatization of facilities and services which can be undertaken by the private sector. It is right time that the government focuses more on policy setting, monitoring and review, and move away from trying to implement production-oriented activities, leaving these to the private sector. Thus, appropriate national policy for livestock development is the need of the day. In this regard, it is recommended that policies be formulated along the following sub-sectoral line.

- National Dairy Policy
- National Poultry Development Policy
- National Animal Health Policy
- National Livestock Trading Policy

**Legislative reforms:** The Animal Health and Livestock Services Act and related Regulation should be amended to give necessary power to official veterinary

services in order to perform their duties, and to state their functions, duties and rights at different levels together with the responsibility of other groups (i.e. local bodies, private sector etc.) involved in animal health matters as per the OIE guidelines described in the International Animal Health Code. A new State Veterinary Regulation may be required in order to elaborate this aspect of the Act. The various terms used in the Act and Regulations should be defined in consistent with the definitions given in the OIE Code. Also, bees, their products and production inputs should be covered by the Act.

Similarly, Animal Feed Act and related Regulation should be revised to govern the manufacture, storage, transportation and sale of animal feeds and feed ingredients, consistent with relevant Codex or OIE standards. The underpinning philosophy of the Act should be a collaborative and preventive approach rather than disciplinary approach.

The control of veterinary medicines is an important area and therefore there is an urgent need to enact a new Veterinary Drug Act. In the animal health sphere, this has particular application to biological products. Inadequate controls on the registration and use of biological products leave the Veterinary Services open to challenge over the quality of animal disease control programmes and over safeguards against the introduction of animal disease from imported veterinary biological products.

Effective government control over veterinary medicines is imperative in so far as these relate to the public health risks associated with residues of these chemicals in animals and animal-derived foodstuffs. This process should be consistent with the standards set by the *Codex Alimentarius*. Furthermore, there is a need to coordinate the law on pesticides with the new law on veterinary drugs. It may be necessary for chemicals which have dual use to be registered under both laws, with different requirements applying to their availability and use.

***Institutional reforms:*** Following the WTO accession, the Department of Livestock Services (DLS) will have to play the role of a “trade facilitator”, over and above safeguarding the health status of the national herd. In addition to the Animal Health and Livestock Services Act and the Slaughterhouse and Meat Inspection Act, the DLS must be responsible for the implementation of the Animal Feed Act and the Veterinary Drug Act. Therefore, the DLS will have to play more important role in the enforcement of the legislations, formulation and application of internationally acceptable national standards for quality control of animals, animal production input and products of animal origin, effective control of zoonoses and economically important diseases of animals.

The present structure of the DLS needs to be reorganized to accommodate such important sectors of animal health such as epidemiology with risk analysis capabilities, veterinary public health including food safety, veterinary drug and animal feed quality controls. The capabilities of epidemiological surveillance, laboratory investigation and quarantine management have been strengthened in recent years but there are still needs for further strengthening in terms of resources (manpower and materials). However, it is unlikely that the Ministry of General Admini-

stration will allow additional staff positions and so the DLS will have to reallocate staff positions from within the Department.

The existing diagnostic laboratory facilities should be upgraded to investigate in detail the OIE list A and major list B diseases of livestock and poultry. The quality of the veterinary diagnostic laboratories of a country underpins the whole control and certification processes of the zoosanitary/sanitary status of exported animals and animal products, and therefore these laboratories should be subject to rigid quality assurance procedures and should use international quality assurance programmes for standardising test methodologies and testing proficiency. The veterinary quality control and animal nutrition laboratories should be strengthened to carry out adequate quality control tests on veterinary biological, veterinary drugs, animal feed and feed ingredients. Test protocol should be harmonized with the relevant OIE and Codex standards.

In order to maintain a progressive approach to meeting the needs and challenges of the changing domestic and international roles of official Veterinary Services, the DLS should have in place an organised programme which provides appropriate training across a range of subjects for relevant staff. This programme should include participation in scientific meetings of animal health organisations. And lastly, for the exercise of the official functions and legal powers, the responsible veterinary officers and other authorised personnel should have, on a permanent basis, immediate and full support from law enforcement authorities, and local administration and customs authorities.