Recommendations on the National Seminar on “Veterinary Education and Practice – Present Status and Future Needs to Meet the Emerging Challenges” held on 21 – 22 September, 2007 at Bangalore

Executive Summary

In order to identify the strengths and weaknesses of Veterinary education and practice in the country for meeting the emerging and imminent challenges for providing efficient and effective Veterinary services as well as to protect community health, as per the global concept of regulation of Veterinary practice and education as flagged by the OIE, a two-day thematic National Seminar on “Veterinary Education and Practice- Present Status and Future Needs to Meet the Emerging Challenges” was held on 21-22 September, 2007 at Bangalore. About 200 participants comprising of the representatives of the State Animal Husbandry Departments, Veterinary Universities/Colleges, State Veterinary Councils, Animal Sciences Research Institutes, Defence/Paramilitary Organisations, Professional Societies and industry attended the Seminar.

The deliberations in the Seminar took place around the six identified topics on which Lead Speakers made their presentations. The following recommendations emerged:

(i) Holistic Regulation of Education: The existing course curricula at the degree course level should be continuously updated to accommodate newer knowledge and skills as per the societal needs and these standards should be implemented with utmost effectiveness in which the State Governments should actively participate by way of providing necessary funding and facilities to the Colleges.

In the modern times of specialization, the imminent need of qualified manpower having specializations and super specializations in various areas of livestock production and health as well as products technology can not be over emphasized. Accordingly, there is an urgent need to regulate the standards of Veterinary education at all levels including post-graduate and Continuing Veterinary Education. Simultaneously, it is imperative that the eligibility for appointment of teachers in the Veterinary Colleges is also regulated through a set of appropriate Regulations as in case of Medical education.

(ii) Establishment of Veterinary and Animal Sciences Universities and Indian Council of Veterinary and Fisheries Research and Education: In order to revive the linkages of the Veterinary colleges with the State Animal
Husbandry Departments at the state level and for providing the required trained manpower and generate relevant cost effective technologies to support animal husbandry development programmes, it is necessary that separate Veterinary and Animal Sciences Universities with desired autonomy are established in each State during the 11th Plan period. For the purpose of uniformity in their organization and functioning, a Model Act should be developed.

To plan, coordinate, fund and mobilize resources for faster and sustained development of Veterinary, Animal Science and Fisheries sector, it is imperative to establish Indian Council for Veterinary and Fisheries Research at the national level as the apex body by bringing the Veterinary/Animal Science/Fisheries Universities and the Animal Science Institutes under one umbrella.

(iii) Providing Development Grants to Veterinary Universities and Colleges: In order to enable the Veterinary Universities and Colleges to meet the financial requirements to fulfill the minimum requirements as laid down in Veterinary Council of India Regulations, one time catch-up grants should be provided during the 11th Plan. Further, the vacant faculty positions need to be filled up immediately to meet the minimum requirements prescribed by the Council.

(iv) Education-Industry Linkage and Private-Public Partnership (PPP): To meet the ever-growing demands of Veterinarians in diverse industrial institutions, it is essential to build up a working linkage between the educational institutions (the manpower generators) and the industry (manpower users). Opening of Veterinary Colleges in the private sector to help meeting the manpower requirements of the States and the industry being imminent, should be regulated to maintain the standards of education in line with that of the regulations framed by Medical Council of India for opening of new Medical Colleges. Possibilities need to be explored for PPP in the Veterinary education as well as services sector in a phased manner in identified fields for mutual benefits.

(v) Strengthening of Field Veterinary Institutions: The state-of-affairs of the field Veterinary institutions is not encouraging with dilapidated buildings, lack of modern equipment and inadequate qualified manpower. These institutions are required to be strengthened immediately by making budgetary provisions by the State Governments with the support from the Central Government during 11th Plan period. The standards are to be monitored through appropriate Regulations as proposed by the Veterinary Council of India with a provision for periodical inspection and accreditation. Further, the concept of doorstep delivery of Veterinary services should be encouraged appropriately. For quick and efficient
diagnostic services in order to minimize the losses due to diseases, it is necessary that disease diagnostic laboratories at State/Zonal/National level are established with suitable networking mechanism.

(vi) Service Conditions of the Veterinarians in the Public Sector: In view of the contributions and importance of Veterinary profession in the developmental activities of the country and in order to give due social respect and encourage the professional Veterinarians for their fullest cooperation to the animal owners, **there should be separate Veterinary Services in each State.** To strengthen the organizational set up of Veterinary Services at National level, the **Indian Veterinary Services (IVS) existing before independence should be revived at the Centre.** Further, the services of professional Veterinarians need to be declared as essential services and not utilized for non-professional activities, which would otherwise affect their regular professional duties.

(vii) Appointment of Professionals as Directors of State Animal Husbandry Departments: To provide appropriate guidance and leadership to the professionals engaged in Veterinary services, the **posts of Directors of State Animal Husbandry Departments need to be essentially filled up by the eligible Veterinarians only.** This will satisfy the spirit of Section 30 of the Act also.

(viii) Establishment of Separate Veterinary Drug Controlling Authority: For the purpose of regulating the quality of Veterinary drugs and biologicals more effectively towards optimizing the disease control measures, it is imperative that a separate Veterinary Drug Controlling Authority be established under the Department of Animal Husbandry, Dairying and Fisheries at the center. Simultaneously, expeditious steps should be taken for developing Veterinary Pharmacopoeia for Veterinary drugs and biologicals.

(ix) Regulation of Services for Para-Veterinary Personnel: To ensure the services being rendered by para-Veterinary personnel in the form of ‘minor Veterinary services’ uniform, efficient and organized, a regulatory mechanism need to be established. This may be given effect through establishing a separate regulatory Council as in case of Pharmacy Council/Nursing Council. **Simultaneously, the notifications defining the ‘minor Veterinary services’ as envisaged in the Indian Veterinary Council Act, 1984 should be issued by the State Governments.**

(x) Implementation of Animal Welfare Related Activities: For effective and holistic approach in Animal Welfare and for better coordination, the **activities related to Animal Welfare including administration of the relevant Acts/Rules should be brought under the purview of the**
Department of Animal Husbandry, Dairying and Fisheries, Government of India with adequate representation of Veterinarians in policy formulation and implementation. With this approach, the existing resources available with the Veterinary Service Departments in the States as well as at the Centre shall play a complementary role in the growth of this field.

(xii) Developing of Food Safety and Feed Quality Standards: In order to protect the community health, the country’s preparedness in terms of food safety needs to be put on strong footing by creating appropriate mechanism for SPS monitoring and certification of foods of animal origin through accredited laboratories. Similarly, in order to optimize production and productivity in the livestock sector, it is imperative that stringent feed quality standards are developed and enforced with effective participation of Veterinarians.
A. Background

A.1 In India, 70% of the rural households own livestock and about 3/4th of the population live in rural areas. The Animal Husbandry sector not only plays an important role in the national economy, and in the socio-economic development of the country, it also contributes significantly in supplementing family incomes and generating gainful employment in the rural sectors, particularly among the landless, small and marginal farmers and women, besides providing cheap nutritional food to millions of people. Though reared mostly on common property resources and crop by products, livestock Sector not only ensures food security through providing essential proteins and nutritious human diet in the form of milk, eggs, meat etc. but also plays an important role in utilization of non-edible agricultural by-products. Livestock provides raw material byproducts such as hides and skins, blood, bone, fat etc. The proportionate contribution of livestock sector to National GDP has remained almost constant for several years and varied from 4.82% to 6.49% during the period 1980-81 to 2003-2004. This contribution was 4.70% at 1999-2000 prices during 2004-05. While the contribution of Agriculture sector to GDP has recorded a fall from 34.72% during 1980-81 to 18.93% during 2004-05 at 1999-2000 prices, the contribution of livestock sector to Agriculture has shown remarkable increase from 13.88% during 1980-81 to 24.91% during 2004-05 at 1999-2000 prices.

A.2 The National Agriculture Policy aims to attain a growth rate in excess of 4% per annum in the Agriculture sector, stresses the importance of food and nutritional security issues and the importance of Animal Husbandry sector in generating wealth and employment. Since the present growth rate in crop production is around 2%, higher growth rates of 6 to 8% in Animal Husbandry sector would help in achieving the targeted growth rate of 4% for the Agriculture sector as a whole. The Policy proposes to accord high priority to increasing protein availability in the food basket and generation of exportable surpluses.
Health care, fodder production, and freedom from animal diseases are some of the other areas of importance, as envisaged in the Policy document.

A.3 With the vast resources of livestock and poultry, India ranks first in respect of cattle and buffalo, 2nd in goats, 3rd in sheep and 7th in poultry population in the world. India has 57% of the world’s buffalo population.

A.4 According to National Sample Survey Organization’s latest survey (1999-2000), the estimate of employment in Animal Husbandry sector was 11 million in principal status and 8 million in subsidiary status, which is 5% of the total working population. According to estimates of the Central Statistical Organization (CSO), the value of output from livestock sector is Rs. 1,64,509 crore at current prices during 2003-04 which is about 25 per cent of the value of the output of Rs. 6,22,065 crore from total Agriculture & allied Sector. The contribution of milk alone (Rs. 1,10,085 crore) was higher than paddy (Rs. 78,205 crore), wheat (Rs. 48,452 crore) and sugarcane (Rs. 22,671 crore) in the year 2003-04. The value of output from meat group as per estimates of Central Statistical Organization (CSO) at current prices was Rs. 29,319 crore during 2003-04. Therefore, this sector can be designated as the most potential of the few growth sectors of the Agricultural economy of the country and admittedly, the future of India’s agricultural export trade rests heavily on livestock products.

A.5 Veterinary education and practice in India are primarily State funded. A regulatory mechanism to maintain the standards of education and practice has been created through an Act of the Parliament namely Indian Veterinary Council Act, 1984. As in elsewhere, initially Veterinary science emerged as a medical profession for domestically important animals—with importance on individual health care. Subsequently, as livestock emerged as a commodity, it resulted in emphasis on herd health, productivity and marketability. Similarly, the society started realizing the need to augment the standards of practice and the quality of services in terms of a commodity. At present, it is an internationally accepted fact
that Veterinary service is a global commodity and its relevance changes based on the societal needs. The domain of Veterinary services has not remained confined to providing treatment to the sick animals and generating livelihood to the poor, but also takes into account the aspects of animal welfare, food security, food safety, public health and environmental issues, international obligations related to production and health etc. It has, therefore, become imperative to harmonise the standards of education in its entirety as well as strengthen and maintain the standards of practice for ensuring the quality of services in the changed global scenario. As the quality of Veterinary services is essentially dependent on the quality of education, it is necessary that a holistic approach is adopted through a regulatory mechanism for ensuring quality of Veterinary education at all levels including Continuing Veterinary Education. Further, the actions in this direction should match with the increasing expectations from the Veterinarians in terms of enhanced production, productivity and efficient disease control measures to meet the demands of population growth.

A.6 Economic and efficiency grounds do not favour total public funding of Veterinary service sector any more. With the success stories of private intervention in many sectors, a critical look is necessary for exploring the possibilities of Public-Private Partnership (PPP) in the veterinary education and service sectors. However, while considering such a rationalization, the exact fields need to be identified cautiously keeping in view the national interest and the interests of the disadvantaged stakeholders.

A.7 The first report of the National Knowledge Commission (NKC) 2006 recognizing the importance of higher education in the country for economic development, social progress and political democracy, has highlighted the need for establishment of about 1500 more Universities by the year 2015. This holds good in respect of Veterinary education also. At present, the country has about 48,000 registered Veterinary practitioners of which many are not actively
engaged in Veterinary practice. With the existing 35 Veterinary Colleges in the public sector, about 1900 graduates pass out annually (with about 2200 annual admissions). This number is not only insufficient to meet the demand of the State departments, educational/research establishments and private sector but also far short of the number of Veterinarians to be available to cater to the need of vast livestock population as per the recommendations of the National Commission on Agriculture (1976).

A.8 The services being extended by the para-Veterinary personnel (Veterinary Supervisor, Stockman, Livestock Assistant etc.) engaged in State Animal Husbandry Departments are also important in providing Veterinary services as envisaged in the IVC Act. The Act envisages that the State Governments have to define the ‘Minor Veterinary Services’ to be rendered by the para-Veterinary personnel. This has, however, not been materialized in majority of the States. The Hon’ble Supreme Court in its recent judgment (in the Civil Writ Petition No 4 of 2005) have observed that the States which have not defined the ‘Minor Veterinary Services’ may do so. At present, there exists a great degree of diversity in the duration, eligibility for admission, course curriculum etc. in the training module for the para-Veterinary personnel from State to State. This coupled with non-existence of any regulatory mechanism is adversely affecting the quality of services being provided by them. Regulation of their services through suitable regulations in a uniform manner as has been made in the Health sector (Pharmacist/Nursing Councils) would ensure quality of their services uniformly through out the country. This would further support the services sector in implementing the emerging concept of ‘door step delivery’.

A.9 India being a signatory on various international agreements viz. Sanitary and Phyto-sanitary (SPS), Technical Barriers to Trade (TBT) etc. need to fulfill their requirements. Also, there is necessity to comply with the standard guidelines and recommendations of Codex Alimentarius Commission (CAC) and Office International des Epizooties (OIE) as reference for food safety and animal
health respectively in global trade. In the post GATT (General Agreement on Trade and Tariff) era, India has to enforce a much stricter quality control and regulatory mechanism to remain competitive in the world market. There is a need for putting in place the much required Hazard Analysis and Critical Control Point (HACCP) determination and maintenance of ISO 9002 standards in many of the organizations/institutions associated with import/export certification related to livestock products. **Further, OIE has, in its 74th General Session at Paris in 2006, emphasized for holistic regulation of Veterinary education including CVE and practice globally.**

**B. Present status of Veterinary education**

B.1 In India, Veterinary education is primarily imparted through State Agricultural University (SAU) set up which has been in existence since the establishment of first SAU under Land Grant Pattern at Pantnagar in 1960. As a result of establishment of Indian Council of Agricultural Research (ICAR) in 1965 as a Society and adoption of the Land Grant pattern, major changes were introduced to control State educational institutes leading to Veterinary/Animal Husbandry Sciences qualifications. These institutes were merged with Agricultural Universities in order to provide a holistic approach to all facets of Agriculture including Animal Husbandry/Veterinary science. Although the number of institutes imparting training in Veterinary Science and Animal Husbandry has increased, adoption of the system of Agricultural Universities merging the Veterinary institutions with it severed linkages with the State Departments of Animal Husbandry. No alternate linkages could be developed to compensate the loss of technical inputs form the Department nor the Veterinary faculties of the Agricultural Universities had adequate means of translating the research packages into technologies for validation and adoption. The situation was further complicated because Veterinary institutions under the Faculty of Veterinary Sciences had to get their views screened by the University authorities which was predominated by Crop Scientists. Further, the requirements of the
Veterinary faculty in Agricultural Universities in most cases could not get properly reflected with obvious results.

B.2 However, as a result of growing need, seven States of the country have already created separate Veterinary and Animal Science Universities viz, Tamil Nadu (1989), West Bengal (1991), Maharashtra (2000), Uttar Pradesh (2001), Karnataka (2004), Andhra Pradesh (2005) and Punjab (2006). At present, there are 35 Veterinary Colleges of which 15 are under seven separate Veterinary/Animal Sciences University. These universities have been carved out of the existing SAU (s) of the States and although are independent, the Act and Statutes and other governing principles have been drawn keeping Model Act of ICAR and SAU Act as a driving force. Pattern of education of Veterinary science retains the basic character of Land Grant system of education as modified to suit under Indian set up. Thus for all practical purposes, respective States or Central Government deal with these Veterinary universities as one of the SAU except that standards for Veterinary education have been laid down and are regulated by Veterinary Council of India at the first degree level only.

B.3 The Government of India, Ministry of Agriculture on the recommendations of the National Commission on Agriculture, got enacted Indian Veterinary Council Act, 1984 in order to regulate and maintain the standard of Veterinary practice and education in the country. This Act, though at the first instance extended to five States, stands extended to all the States and Union Territories except Jammu & Kashmir today. For the purpose of implementing the Act, the Veterinary Council of India and the State Veterinary Councils have been set up with the mandates as enshrined in the Act. The Council has thereafter, framed appropriate Regulations in 1993 specifying the minimum standards of education along with the minimum facilities that are required to impart graduate Veterinary education. Implementation of these Regulations is given effect through periodic inspections of the facilities available at the Veterinary Colleges and their examinations as per the provisions of the Act.
B.4 As a result of implementation of the Regulations, today, uniformity in the Veterinary education at the B.V.Sc & A.H. degree level has been brought in. Having taking into account the present need and future requirements in the field of Veterinary education and the job requirements of Veterinarians, the course curricula for the degree programme as included in the above Regulations have recently been revised (2005) and is proposed to be reviewed periodically as per the societal demands.

B.5 Agricultural education including Veterinary and Animal Sciences is a State subject (entry 14 of list II of schedule VII). An entry has also been made under the Concurrent list (entry 25 of list III of schedule VII). State Agricultural Universities (SAUs) including Veterinary Universities, which impart B.V.Sc & A.H. degree through its constituent units, have the basic responsibilities to create requisite facilities including human resource and provide conducive environment to impart training. ICAR provides funds under ‘Development and Strengthening’ head to the Veterinary Colleges, which act as supplement to the State funding. Specific support on a limited scale has been provided to Veterinary Colleges for modernization and upgradation of Teaching Veterinary Clinical Complex including diagnostics and establishment of Instructional Livestock farms. The Veterinary Colleges under SAUs as well as State Veterinary and Animal Sciences Universities receive the major share of funding from the respective State Government. The exceptions are the College of Veterinary Sciences, Aizawl under Central Agricultural University, Imphal that receives all its funds from ICAR, and the College of Veterinary Science under Pondicherry University (a central University).

B.6 As per the Inspection Reports and available information, it has been observed that the major constraint experienced by the Universities/Veterinary Colleges in fulfilling the requirements is non-availability of funds, non-creation and timely filling up of the posts (both teaching and supporting). In almost all the
Universities, the funds are distributed on the same parameters as for the Agricultural and other allied Colleges. Under these circumstances, it is a common phenomenon that due proportion of funds which are required to create/maintain the minimum standards in the Veterinary Colleges as a part of the statutory obligations are not made available by the University which also have Agricultural and other faculties without any such statutory requirements to be fulfilled. As a result, the Veterinary Colleges that require greater attention and higher allocation to maintain the minimum standards uniformly remain deficient. Cumulative effect of this has caused a serious deterioration in terms of the facilities and thus, the standards of Veterinary education.

B.7 There exists neither provision for extending financial support to the Universities/Colleges for this purpose by the VCI at present nor any mechanism to link the decisions/recommendations of the VCI with extending financial assistance to the Veterinary Colleges by DARE/ICAR. Since ICAR has not made any provision for extending financial support to the Colleges for meeting the requirements specified by VCI, the Colleges are facing the difficulties in effectively implementing the VCI Regulations. As a result, it has become difficult to maintain the standards of Veterinary education as well as to bring uniformity throughout the country.

B.8 The need to provide central grants to strengthen the Veterinary education institutes in the country have been documented by the Working Group on Agricultural Research and Education as well as the Working Group on Animal Husbandry and Dairying of the Planning Commission for the 10th Five Year Plan. It was envisaged that each Veterinary College should upgrade its facilities and faculties to be at par with the Council regulations and indicated strengthening of Veterinary Colleges as per the norms of VCI as one of the thrust areas for the 10th Plan.

B.9 On analyzing the situation, the Council recommended providing of one time catch-up grant to the Veterinary Colleges to meet their requirements in
strengthening the facilities for fulfilling the minimum standards prescribed by the VCI during the 11\textsuperscript{th} Plan period.

B.10  The process of admission, the eligibility criteria and mode of admission to Veterinary Colleges, including that of the students selected through an All India Entrance Examination to 15\% of the seats, have been made uniform throughout the country. Most of the Colleges have, however, not been able to meet the minimum requirements particularly in terms of teaching manpower. As per the available records, out of the total about 3700 faculty required for teaching in the 35 Veterinary Colleges as per the VCI Regulations, about 50\% positions are vacant at present.

B.11  Though some of the State Agricultural/Veterinary Universities are actively considering establishing new Veterinary Colleges to meet their local need of manpower, the major constraints in terms of availability of adequate funds and manpower remain constant. Such attempts of opening new Colleges without strengthening the already deficient existing Colleges and assurance of future funding to the new Colleges shall definitely lead to an extremely difficult situation where it would be impossible to maintain the standards of education. Such desperate attempts should, therefore, be discouraged at this very initial stage by framing suitable regulations as in case of Medical Council of India has framed for opening of Medical Colleges in India.

B.12  Regulation of Veterinary education only at the undergraduate level shall not be adequate in the era of specialization and super specialization. Further, there is a need for making entries of postgraduate degree or diploma in Veterinary science in the IVPR as additional qualifications as provided in the Act. Having been established under an Act of the Parliament, VCI has the mandatory obligation and authority of regulating postgraduate Veterinary education as in case of Medical Council of India and Central Council for Homoeopathy regulating their postgraduate education. This shall, however, call for an amendment in the Allocation of Business Rules in the
Government according to which, the subject of Veterinary education has been allocated to the Department of Agricultural Research and Education along with Agricultural education.

B.13 The logical solution at the policy planning level to address all the issues related to Veterinary education would call for establishment of Indian Council of Veterinary and Fisheries Research and Education (ICVFRE) at the National level. This proposal is in line with the recommendations made by the Working Groups on Animal Husbandry & Dairying of the Planning Commission for the 10th and 11th Plan. Various Parliamentary Standing Committees on Animal Husbandry have also made similar recommendations, which were agreed in principle by the Planning Commission.

B.14 Besides the formal Veterinary education, Continuing Veterinary Education (CVE) for the field Veterinarians, para-Veterinary personnel and senior level professional managers is an essential pre-requisite for not only sustained professional development but also for improving the quality of service delivery to the clients. It is more important in view of the changing scenario wherein competence and capabilities of field personnel will be essential to meet the emerging challenges out of the post WTO regime as well as the international standards for competing in global market with respect to livestock and livestock products. With the burgeoning body of knowledge, changing global trade and economic scenario and emerging areas of inter-disciplinary concerns, there is a paradigm shift in the attitude and approaches to impart Veterinary education and more so to the existing field Veterinarians delivering services to the animal owners. Accordingly, there is an urgent need to update the knowledge of Veterinary professionals involved in looking after the livestock production and health in the country as well as in managing the livestock based business. Moreover, international regulations regarding delivery of Veterinary services, product quality, standards etc. are also emerging important areas for the country to become competitive in global market. In this direction, the Department of
Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Government of India has recently decided to implement CVE programmes in the country on a regulatory mode through Veterinary Council of India as its nodal agency.

C. Present Status of Veterinary Practice

C.1 Veterinary services are made available at the Veterinary Hospitals, Polyclinics, Veterinary Dispensaries and Mobile Dispensaries. Besides the routine animal health care facilities, the services of qualified veterinarians are utilized in Semen Production Centers, Frozen Semen Banks, A.I. Centers, Animal/Poultry Breeding Farms, Laboratory Animal Units, Hatcherries, Feed Manufacturing Units, Drug and Biological Production Units, Quality Control Laboratories, Slaughter Houses, Milk/Meat Processing Units, Animal Quarantine and Certification Processes, Defence/Para-Military Forces etc. Quality Veterinary services are the key to the success of any disease control and livestock production programme of national or regional importance.

C.2 At present, there are 8720 Veterinary Hospital/ Polyclinics, 17820 Veterinary Dispensaries and 28195 Veterinary Aid Centres including Stockman Centres/Mobile Dispensaries. These institutions are supported by about 250 Disease Diagnostic Laboratories. It is an admitted fact that there has been an unplanned mushrooming of such institutions based on the ground other than need. As a result, the state of affairs of these field level Veterinary institutions is not only unsatisfactory but also poor. As majority of them do not have any infrastructure, they need immediate strengthening to meet the bare minimum requirements of such an institution by any parameter. Simultaneously, they also need to be manned by registered Veterinary practitioners to offer the specified category of services.

C.3 The National Commission on Agriculture (1976) recommended one Veterinarian for every 5000 cattle heads. Accordingly, it is estimated that as per
this standards, the country needs about 70,000 Veterinarians. As per the IVPR (2006), there are only around 48,000 Veterinarians in the country. Hence, immediate steps are required at the policy planning level to meet this gap, should the target of requirement and the quality of services are met with.

C.4 As the spectrum of activity of the Veterinarians has widened and there has been an explosion of knowledge and technology, the State Animal Husbandry Departments should have a specialist cadre to man the institutions providing such services. In order to create such a cadre, there should be suitable service conditions to encourage the practitioners and for effective service delivery in specialized sector at field level. Similarly, a mechanism has to be developed at State level to ensure optimum utilization of the manpower with specialization already available with them. It has been observed that all the States do not have Veterinary Services to regulate the cadre of Veterinarians in their States. Also, the erstwhile Indian Veterinary Service, which existed prior to independence, does not exist any more. This has adversely affected the Veterinary services in its totality. The situation has further aggravated with the trend of filling up of the posts of Directors of State Animal Husbandry Departments with individuals having no professional qualification and registration with State Councils which is a mandatory requirement for practicing Veterinary medicine, as the professional leadership needed for the large regiment of State Veterinary officials has gone missing. This has also resulted into non-representation of the State Animal Husbandry Departments in the State Councils, thereby adversely affecting the process of establishment/strengthening of the linkage between the Department and the Council necessary for implementing the statutory provisions of the Act. This also acts as a hindrance in the process of certification related to trade of animal and animal products as required under international norms. As the State Governments appear to be not keen to address this matter, this has resulted in deterioration of the quality of services as well erosion in the professional morale of the officers serving in the Departments. As a matter of policy, the Director of Animal Husbandry in the States should invariably be a person holding a
recognized Veterinary qualification and registered under the Act. Besides effective implementation of the provisions of the Act and the regulations framed thereunder, this shall also ensure technical competence at the helm of affairs required for offering quality Veterinary services, infuse a sense of dignity among the officials of the Department and satisfy the spirit of the Act.

C.5 Further, in order to regulate Veterinary practice, the VCI has prepared appropriate Regulations through wide consultations with the State Departments and the Councils. These Regulations *inter alia* prescribe the minimum standards in terms of facilities/manpower that should be made available in the field Veterinary institutions for ensuring quality services. Upon approval of the Central Government, these will be implemented in which the State Councils shall play the major role. In fact, effectiveness of implementing these Regulations shall hold the key to ensure the quality of Veterinary services in the country in future. With the force of law and mandatory nature in built with these Regulations, the existing field Veterinary institutions could be strengthened to provide quality services upon their implementation.

C.6 As the regulatory activities undertaken by the VCI and the State Councils as enshrined in the Act are continuous in nature, it is utmost necessary that immediate steps are initiated to convert their activities from Plan Head to Non-Plan Head. Also, the newer activities undertaken by them need to be supported through Plan schemes. In this context, it is relevant to note that Medical Council of India, a similar statutory body under the Ministry of Health and Family Welfare, receive grants from the Central Government under both Plan as well as Non-Plan Head.

D. Present status of Veterinary Service Delivery in other sectors
(i) **Animal Welfare Activities**: Animal Welfare activities in India taken care of by the Animal Welfare Board of India (AWBI) established under the Prevention to Cruelty to Animals Act, 1960 enacted by the Parliament with the sole objective of preventing infliction of unnecessary pain and suffering to animals. Though at the time of inception of AWBI which was constituted in 1962 under the Ministry of Food and Agriculture, the subject of Animal Welfare was transferred to the Ministry of Environment and Forests in 1990, and from there to the Ministry of Social Justice and Empowerment during 1998. Presently, the Board is functioning under the Ministry of Environment and Forests. A number of Rules have been framed under the said Act for the purpose of fulfilling its objectives. The Societies for Prevention of Cruelty to Animals (SPCAs) and a number of other Animal Welfare Organizations (AWOs), Non-governmental organizations (NGOs) and Goshalas are presently involved in the field of Animal Welfare, which are funded and monitored by the AWBI.

Functioning under a department, which is primarily concerned with the Environment, Forests and Wild Life, the growth and expansion of the AWBI has remained retarded has not been able to take care of the total livestock population in the country. Instead, their focus has remained confined mostly to Animal Birth Control (ABC) and Anti Rabic Vaccine in Dogs to control their population in the urban areas and Goshalas in rural areas. Further, the mechanism to involve/utilize the functional network/facilities of Veterinary services under Animal Husbandry Departments in the country could not be established and thus, rendering the impact weaker. Strengthening and expansion of the AWBI and establishment of the linkages with the parent department institutions (Animal Husbandry and Veterinary Services) would facilitate effective and better implementation of the Act and the Rules pertaining to Animal Welfare. This would also avoid creating additional set of infrastructure, thus saving a huge expenditure. After considering the above issues, the Working Group on Animal Husbandry and Dairying of the Planning Commission for 11th Plan has recommended for attempting the Animal Welfare activities in collaboration with
the Veterinary health service activities. Having prescribed the Animal Welfare standards and realizing that Animal Welfare activities are to be carried out by the Veterinary Services Departments, the OIE is holding the second Global Conference on Animal Welfare during October 2008 with the aim to raise the profile of Animal Welfare, worldwide implementation of the standards and to encourage Veterinarians and National Veterinary Services to take greater responsibility for Animal Welfare.

(ii) Regulation of Quality of Veterinary Drugs and Biologicals: Initially, production of Veterinary biologicals was primarily with the public sector institutions. With the increased demand of Veterinary health care products due to enhancement of livestock productivity, private manufacturers have stepped into this field and today, it is in the private sector that most of the products are being manufactured. At present, the quality of Veterinary drugs and biologicals is governed under the Drugs and Cosmetics Act, 1940 and the Rules, 1945, administered by the Ministry of Health and Family Welfare through the network which is meant for human medicines. Though the Department of Animal Husbandry, Dairying and Fisheries, as the nodal department for livestock development and disease control in the country has to play a major role in ensuring quality of Veterinary drugs and biologicals, it has no direct control over these issues. Also, in the absence of a separate Veterinary Pharmacopoeia for the drugs and biologicals there remains a wide gap in effectively ensuring their quality. The Working Group on Animal Husbandry and Dairying of the Planning Commission for 11th Plan has observed that a separate Veterinary Drug Control Authority is not desirable but also essential in India.

E. The Seminar

E.1 In order to identify the strengths and weaknesses of Veterinary education and practice in the country for meeting the emerging and imminent challenges for providing efficient and effective Veterinary services as well as to protect
community health, as per the global concept of regulation of Veterinary practice and education as flagged by the OIE, held a two-day thematic National Seminar on “Veterinary Education and Practice- Present Status and Future Needs to Meet the Emerging Challenges” on 21-22 September, 2007 at Bangalore. About 200 participants comprising of the Directors and Officials of the State Animal Husbandry Departments, Vice-Chancellors of Veterinary Universities, Deans and faculties of Veterinary Colleges, Presidents and Registrars of State Veterinary Councils, Scientists of Animal Sciences Research Institutes, Officials of Defence/Paramilitary Organisations, Professional Societies and industry attended the Seminar.

E.2 The deliberations in the Seminar took place around the six identified topics on which Lead Speakers made their presentations as detailed below: -

(i) Veterinary Education vis-à-vis Efficiency in Service Delivery System –by Dr. K. Pradhan, Ex-Vice Chancellor, OUAT, Bhubaneswar and RAU, Bikaner
(ii) Structures, Role and Management of State Veterinary/Fisheries Universities – presented by Dr. V.K. Taneja, Vice Chancellor, GADVASU, Ludhiana.
(iii) Provisions and Regulations for Veterinary Practice and Future Strategies for Strengthening of Veterinary Service Delivery –by Dr. Nagendra Sharma, Vice Chancellor, SKUAST, Jammu.
(iv) Evaluation of Veterinary Practice – by Dr. S. Ramalinga Raju, Vice-President, VCI.
(v) Food Safety, Quality and Community Health - by Dr. R.N. Sreenivas Gowda, Vice Chancellor, KAVFSU, Bidar.
(vi) Linkages Between the Manpower Generators, Users and Funding Agencies – by Dr. N. Balaraman, Vice Chancellor, TNVASU, Chennai.

E.3 After deliberations on the recommendations of the three Technical Sessions presented by the respective Rapporteur, these were approved in principle in the Plenary Session on 22.9.2007. As decided, the final recommendations have been documented through a Drafting Committee constituted for this purpose.
F. The Recommendations

F.1 Veterinary Education

(i) Holistic Regulation of Education: The Regulations for maintaining the standards of Veterinary education at the degree course level should be implemented with utmost effectiveness in which the State Governments should actively participate by way of providing necessary funding to the Colleges. The course curricula need to be continuously updated to accommodate emerging knowledge and skill needs of the society and other stakeholders. The changes should also include corporate orientation and entrepreneurship capabilities which is going to be in great demand in the changed scenario of privatization of services.

In the modern times of specialization, the imminent need of qualified manpower having specializations and super specializations in various areas of livestock production and health as well as products technology can not be over emphasized. Accordingly, there is an imminent need to regulate the standards of Veterinary education at all levels including post-graduate and Continuing Veterinary Education. In this direction, necessary regulations for post-graduate Veterinary education should be developed and implemented on priority. Similarly, in order to optimize the utilization of CVE programmes, these need to be brought under a regulatory framework making them mandatory for both the practitioners for renewal of their registration with State Councils and for the employers for optimizing utilization of their trained manpower.

(ii) Establishment of Veterinary and Animal Sciences Universities and Indian Council of Veterinary and Fisheries Research and Education: In order to revive the linkage of the Veterinary colleges
with the State Animal Husbandry Departments at the state level and for providing the required trained manpower and generate relevant cost effective technologies to support animal husbandry development programmes, *it is necessary that separate Veterinary and Animal Sciences Universities with desired autonomy are established in each State during the 11th Plan period.* In addition to the Veterinary and Fisheries faculties, the Universities should contemplate on expanding their inter-disciplinary dimensions by opening related faculties such as faculty of Food Science, faculty of Social Science and a strong supporting engineering and instrumentation wing as part of teaching/research infrastructure. To have the desired growth in the mandated sectors of teaching, research and extension, separate Directorates should be established in these Universities. The Universities should develop functional linkages with other Universities/Institutions for mutual sharing of facilities and expertise. For the purpose of uniformity in their organization and functioning, a Model Act should be developed with a provision of representation from the Veterinary Council of India and respective State Veterinary Council in each of the University Management/Academic Boards in view of the requirement of meeting the statutory obligations in maintaining the standards of Veterinary education.

To plan, coordinate, fund and mobilize resources for faster development of Veterinary, Animal Science and Fisheries sector, it is imperative to **establish Indian Council for Veterinary and Fisheries Research at the national level as the apex body.** The Veterinary/Animal Science/Fisheries Universities and the Animal Science Institutes under the existing ICAR system should be brought under this apex body. This system once put in place shall be able to revive the essential linkages between the educational/research institutions and the user/development departments both in the States
and Centre, and pave the way for drawing up a demand driven research agenda besides channelising adequate funds for education and research to achieve the targeted growth in the sector.

(iii) Providing Development Grants to Veterinary Universities and Colleges as one-time catch-up Grants and Filling up of the Faculty Positions: In order to enable the Veterinary Universities and Colleges to meet the financial requirements to fulfill the minimum requirements as laid down in Veterinary Council of India Regulations, one time catch-up grants should be provided during the 11th Plan. The major emphasis should be focused in developing and strengthening the instructional livestock farms, teaching Veterinary clinical complex, lecture halls and the laboratories. The library should be modernized with newer technological tools viz. internet connectivity, CD ROM, digitization programmes and updated database for better dissemination of knowledge. Besides the one-time catch up grants, the Colleges should be provided with grants for their development and strengthening regularly. Further, for maintaining the standards of education, The State Governments should take immediate steps to create the minimum required number of faculty positions in each Veterinary College and their filling up on priority.

(iv) Education-Industry Linkage and Private-Public Partnership: To meet the ever-growing demands of Veterinarians in diverse industrial institutions, it is essential to build up a working linkage between the educational institutions (the manpower generators) and the industry (manpower users). This would provide the educational institutions with the actual requirements in terms of education/training required by the industry as well as encourage the development of public-private partnership. Further, with the boom in the market in education sector and to meet the requirement of manpower, a number of State
Governments are allowing private entrepreneurs to open new Veterinary Colleges. When owing to the financial limitations, the State Governments may not afford to open newer Colleges; it would be a welcome step to open Veterinary Colleges in the private sector, which would help meeting the manpower required by the States and the industry. However, there is a need to have a strong regulatory mechanism to maintain the standards of education at these institutions in line with that of the regulations framed by Medical Council of India for opening of new Medical Colleges. Therefore, it is essential that the regulations proposed for regulating opening of new Veterinary Colleges are implemented effectively and efficiently.

(v) Regulation of Teachers Eligibility: In order to maintain the standards of Veterinary education and bring uniformity in the quality, it is essential that the eligibility of the teachers to be appointed in the Veterinary Colleges is suitably defined and regulated as in case of Medical education. Hence, the Regulations proposed by the Veterinary Council of India in this regard may be given effect expeditiously. Further, Veterinary education being technical/professional in nature, the requirement of National Eligibility Test (NET) be waived off from the recruitment qualifications to meet the manpower requirement in the education sector.

F.2 Veterinary Practice

(i) Enforcement of Regulations to Regulate Veterinary Practice: In order to maintain the standards of the facilities including manpower in the field level Veterinary institutions and to ensure the quality of the services provided through them, it is imperative that the proposed Veterinary Practice Regulations are implemented with due
effectiveness. The Central Government and the respective State Governments are required to make necessary budgetary provisions for strengthening the field level Veterinary institutions fulfilling the minimum requirements as emphasized in these Regulations. Further, it is essential that similar regulations covering all other aspects of Veterinary service delivery system are developed and implemented for a holistic regulation of Veterinary practice and ensuring quality of services.

(ii) Upgradation/Strengthening of Field Veterinary Institutions: Though there exists a large network of various field Veterinary institutions and diagnostic facilities, their state-of-affairs in these institutions is not encouraging with dilapidated buildings, lack of modern equipment and inadequate qualified manpower. Appropriate Regulations as proposed by the Veterinary Council of India to maintain their standards should be enforced immediately with a provision for periodical inspection and accreditation. The State Governments need to focus their attention with adequate budgetary allocation in strengthening these facilities, which will in turn ensure quality services. There is a need for intervention by the Government of India on this matter coupled with financial assistance to States during the 11th Plan period to improve upon the situation and ensure quality of Veterinary services. Further, The concept of doorstep delivery of Veterinary services should be encouraged appropriately.

(iii) Service Conditions of the Veterinarians in the Public Sector: In view of the contributions and importance of Veterinary profession in the developmental activities of the country and in order to give due social respect and encourage the professional Veterinarians for their fullest cooperation to the animal owners, there should be separate Veterinary Services in each State. The Governments in the States
where no such Services exist should take up the matter of creating State Veterinary Services immediately. To strengthen the organizational set up of Veterinary Services at National level, the Indian Veterinary Services (IVS) existing before independence should be revived at the Centre. Further, the services of professional Veterinarians need to be declared as essential services and not utilized for non-professional activities, which would otherwise affect their regular professional duties.

(iv) Appointment of Professionals as Directors of State Animal Husbandry Departments: The posts of the Directors of State Animal Husbandry Departments are though managerial in nature in providing appropriate guidance and leadership to the professionals engaged in Veterinary services, their professional qualification is essential for establishing their leadership amongst their colleagues. As such, the posts of Directors of State Animal Husbandry Departments need to be essentially filled up by the eligible Veterinarians only. This will satisfy the spirit of Section 30 of the Act also. The Central Government may issue advisory note to the State Governments in this regard.

(v) Establishment of State/Zonal/National Disease Diagnostic Laboratory Facilities: Quick and efficient diagnosis of diseases is an essential component for the success of controlling any disease. As such, in order to make the Veterinary service delivery system more effective and to minimize the losses due to various diseases affecting livestock and poultry in the country, there is a need for establishing disease diagnostic laboratories at State/Zonal/National level. These facilities should be developed as referral facilities to the existing disease diagnostic laboratories in the States and brought under a
network together with the inputs from the concerned educational and research institutions.

(vi) **Implementation of CVE Programmes on Regulatory Mode:** For efficient implementation of any programme, it must have a regulatory mode. The CVE, being an integral part of Veterinary education for continuous updating of knowledge and ensuring quality Veterinary services, should be implemented on a continuous basis through a set of regulations. Thus, appropriate regulations for implementing and monitoring the CVE programmes as part of regulation of Veterinary practice under the Indian Veterinary Council Act, 1984 should be framed. These regulations should envisage making the participation of the Veterinarians in the specified CVE programme mandatory and a pre-requisite for renewal of their registration/promotion through assessment of professional performance. These should also prescribe the responsibilities/obligations of the practitioners, State AH Departments, State Veterinary Councils, and identified training institutions towards CVE, and also the structure of different programmes. As such, the State Governments should make necessary budgetary provisions for imparting CVE training to the Veterinary professionals working in the State departments base on their need.

(vii) **Public-Private Partnership:** Public-private partnership, which blends with social equity and efficiency in development, is considered as a partnership among public and private institutions/individuals and NGOs to achieve a mutually agreed goal in the interest of defined target group and the partners. This has already proved to be successful in terms of contribution and effectiveness in a number of areas in the country. Apparently, livestock sector is a promising field for successfully adopting this model as is being experimented in some States for offering doorstep service. As such, possibilities
need to be explored for public-private partnership in the Veterinary services sector in a phased manner in identified fields.

F.3 Structural

(i) Establishment of Separate Veterinary Drug Controlling Authority: Quality of drugs and biologicals with detailed specifications plays an important role in the quality of service. This becomes more pertinent to achieve the targets of any disease control programme at zonal as well as national level (a Disease Free Zone Programme to control and eradicate Foot and Mouth Disease is already under operation). For the purpose of regulating the quality of Veterinary drugs and biologicals more effectively towards optimizing the disease control measures, it is imperative that a separate Veterinary Drug Controlling Authority be established under the Department of Animal Husbandry, Dairying and Fisheries at the center. To support this structure, State level authorities be set up with adequate infrastructure and manpower. Simultaneously, expeditious steps should be taken for developing Veterinary Pharmacopoeia for Veterinary drugs and biologicals which shall ensure maintaining the quality of drugs and biologicals as per the country’s requirement.

(ii) Regulation of Services for Para-Veterinary Personnel: The services being rendered by para-Veterinary personnel in the form of ‘minor Veterinary services’ should be brought under a regulatory mechanism to ensure their quality and uniformity in the country. This may be given effect through establishing a separate regulatory Council as in case of Pharmacy Council/Nursing Council. Bringing their services under regulatory ambit would make this sector more efficient, organized and regulated. Simultaneously, the State Governments should issue
notifications defining the ‘minor Veterinary services’ as envisaged in the Indian Veterinary Council Act, 1984.

(iii) **Implementation of Animal Welfare Related Activities:** For effective and holistic approach in Animal Welfare and for better coordination, the activities related to Animal Welfare including administration of the relevant Acts/Rules should be brought under the purview of the Department of Animal Husbandry, Dairying and Fisheries, Government of India with adequate representation of Veterinarians in policy formulation and implementation. The existing resources available with the Veterinary Service Departments in the States as well as at the Centre shall play a complementary role in the growth of this field.

(iv) **Representation of Veterinarians in different Committees:** For the purpose of supporting the deliberations and making the recommendations of various Committees concerning Animal Welfare, Wildlife, Feed Standards, Livestock and Livestock Products etc. relevant and technically sound, there should be adequate and effective representation of the Veterinary Council of India, State Veterinary Councils (at State level) and Veterinarians in these Committees.

(v) **Developing of Food Safety Standards:** In order to protect the community health, the country’s preparedness in terms of food safety needs to be put on strong footing by creating appropriate mechanism for SPS monitoring and certification of foods of animal origin through accredited laboratories.

(vi) **Development and Application of Feed Quality Standards:** In order to optimize production and productivity in the livestock sector, it is imperative that stringent feed quality standards are developed and enforced with effective participation of Veterinarians.