



***Workforce Analysis: Departmental Vision
cum Roadmap for Development of Animal
Husbandry and Veterinary Sector in the State
of Assam, India***

Excerpts of Final Report submitted to:

***Department of Animal Husbandry
and Veterinary
Government of Assam***

By

Vet Helpline India Pvt Ltd

Preparation of Departmental Vision cum Roadmap for Development of Animal Husbandry and Veterinary Sector in the State of Assam – An initiative commissioned by:

অসম চৰকাৰ



GOVERNMENT OF ASSAM

***Department of Animal Husbandry and Veterinary
Government of Assam***

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General review of workforce situation

The category of the workforce serving Animal Husbandry and Veterinary sector includes:

- Producers of livestock products.
- Other value chain actors from farm to fork
- Veterinarians (Public and Private)
- Planners, other professionals, and related subject matter experts
- Social workers involved in livelihood promotion, animal welfare, animal conservation, etc
- Veterinary paraprofessionals
- Village level animal health workers / Artificial Insemination Technicians
- Farm supervisors
- Farmworkers
- Field workers engaged in animal handling, rescue and rehabilitation.

Considering the different categories of people mentioned above, the number of people who are involved directly with the sector can be safely estimated to be substantial.

As per the Veterinary Practitioners Registrar (2018), there are 2963 number of registered veterinarians (Public and Private) in Assam.

As per available government statistics¹, between 2002 to 2017 altogether 206 private agri-clinics were established in Assam. Out of these, 107 are related to veterinary services and farm input supply. Based on this, the number of private veterinarians in practice or private business can be considered as 107. As per estimate based on experience survey of members of the Small Animal Practitioners Association, Assam, the number of private practitioners in companion animal care (2018) is around 25.

There are 206 veterinary related teaching and research faculty under Assam Agricultural University (AAU). In the last fifteen years (2001-2016) the College of Veterinary Science, Khanapara, Assam Agricultural University have produced 1360 number of graduates (Average 85 per year), 416 number of postgraduates (Average 26 per year) and 108 number of Ph.D. (Average 7 per year). (Refer to Figure 1).

The College of Veterinary Science, Joyhing, North Lakhimpur during the same period have produced 86 graduates.

¹Refer <http://www.agriclinics.net> for address.

The analysis of available detailed data of the College of Veterinary Science, Khanapara, indicates that there is a limited capacity expansion in the last 15 years to produce more veterinarians. It is to be noted that not all graduates and postgraduates, PhDs who pass out from the College of Veterinary Science, AAU are from within the state or are destined to work within Assam. In general, 15% of the available seat at Khanapara college are reserved for candidates from all India competition, and 27% of the seats are reserved from other N E states. The estimated seats open for entry through college entrance test per year is 57 only.

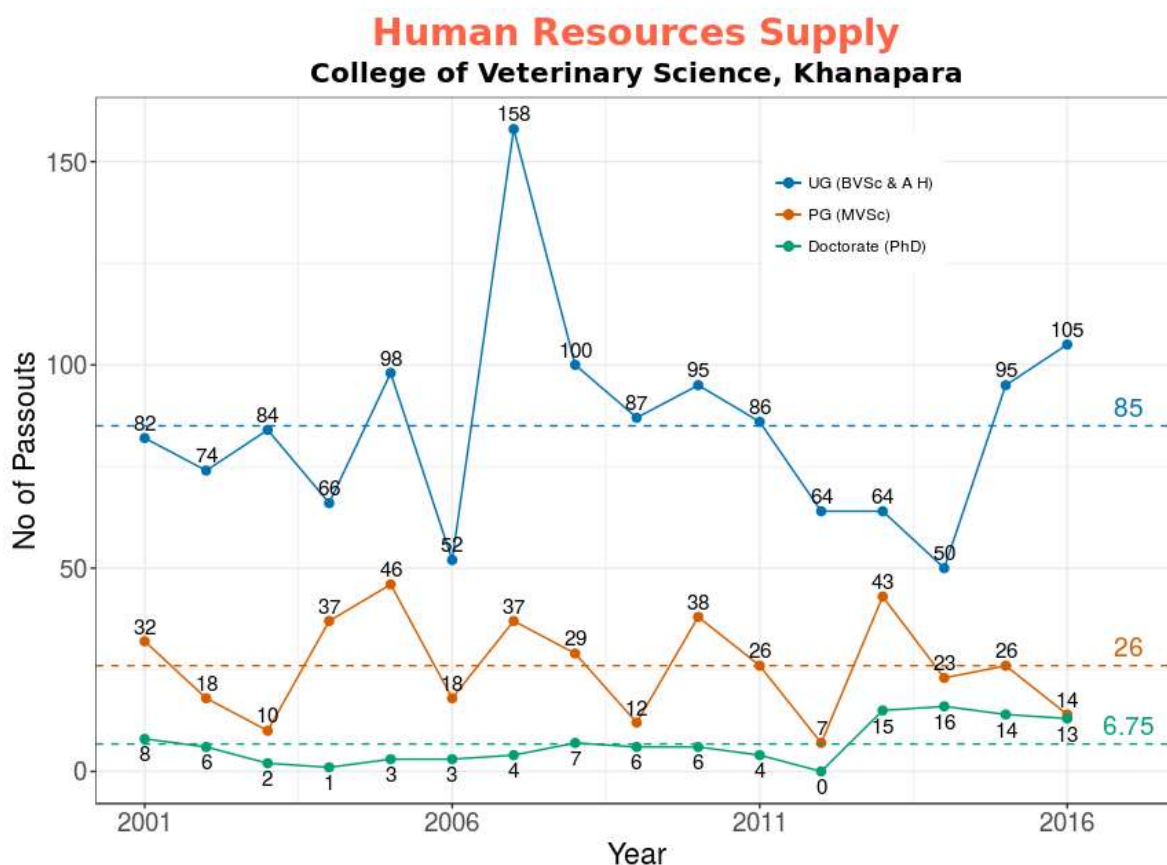


Figure 1 Human Resource supply from College of Veterinary Science, Khanapara AAU

Source: College of Veterinary Science, Khanapara

Note: Two batches graduated in the year 2007 within six months of the interval following changes in VCI regulation.

The training of veterinary paraprofessionals at School of Veterinary Science & Animal Husbandry at Ghungoor, Silchar, is irregular as intake is based on periodic government decision only (Refer Table 1). Since 2000, only 91 paraprofessionals have completed the one-year course of elementary knowledge of veterinary science and animal husbandry (Veterinary Field Assistant Course). The school also trained 91 *Gopal Mitra's* (Artificial Insemination Technicians) in recent years. During the year 2017, the government has advertised² for the training of 300 Veterinary Field Assistants. However, the training could not be started due to the directive of the court of law.

² Vide Government letter of approval No. VJV251 / 2014/76 dated 17th May 2017

The state is yet to have any private institution for the training of veterinarians and long term trained veterinary paraprofessionals.

Year of Pass out	Total Number of students
1959-60 to 1995-96	3949
2007-08	17
2010-11	45
2014-15	29
Total	4040

Table 1 Veterinary Field Assistant trained at School of Veterinary Science and A H, Ghungoor, Silchar

Amongst the short-term trained para -veterinary workers, Assam State Rural Livelihood Mission has trained 400 people as ‘*Pashu sakhis*’ (Village Animal Health Workers) within the state. RGVN (*Rashtriya Gramin Vikas Nidhi*) under its project Cross-border Transfer of Agricultural Technologies, Institutional & Market development (Bangladesh-India), has trained 25 Livestock Service Providers (LSPs) to support farmers in livestock and poultry farming.

As per the 6th economic census 2013, there are 127179 livestock establishments in Assam that employ 2.17 lakh number of people.

The 314 functional dairy cooperatives and 368 numbers of other functional registered cooperatives in Assam are engaging people too for livestock product testing, quality control, handling, and marketing. (Picture 1)



Picture 1 Man power involvement in milk transportation and marketing

The information reviewed in the above paragraphs indicates the need for a more detailed human resource audit (Covering both the Public and Private sector) to understand the human resource supply, skill categories, and engagement scenario.

Workforce assessment of Department of Animal Husbandry and Veterinary:

The professional cadre strength of the department of Animal Husbandry and Veterinary is 1003 numbers of veterinarians and 2506 para-veterinarians. As per the data shown in Table 2, the percent vacancy is 21.4% for veterinarians and 11.6% for para-veterinarians. The vacancy is more acute for senior leadership positions.

Name of the Designation	Strength	Men in position	Vacancy
Director	1	0	1
Additional Director	5	0	5
Joint Director	10	0	10
Deputy Director	56	7	49
Assistant Director	52	36	16
Sub Divisional Veterinary Officer & Equivalent	176	153	23
Veterinary Officer	703	592	111
Total of Veterinary cadre	1003	788	215
Para-veterinary staff (L.I./SVFA/VFA)	2506	2216	290
Supporting Office staff	6421	5169	1252
Grade IV staff	1919	1411	508
Driver	199	137	62
TOTAL	12048	9721	2327

Table 2 Workforce position of Department of Animal Husbandry and Veterinary as on Jan 2018

NB: Many officers oversee multiple sanctioned positions.

Source: All Assam Veterinary Service Associations

There are 147 numbers of different types of sanctioned designations within the department where the incumbent is a veterinarian. The high numbers of designations are primarily due to designation created under various sponsored schemes, many of which are not functional anymore. The consultation conducted indicated that many officials holding designations under non-functional schemes are contributing to other delegated important functions without any administrative order that describes a new job role for such officers.

The para-veterinary staff shown in above Table 2 is more than the sanctioned post of 1615 number of veterinary paraprofessionals indicated in the 'The Assam Animal Husbandry and Veterinary Subordinate Service Rules, 2002³' (Refer Table 3). Though it cannot be confirmed, the information in Table 2 and Table 3 indicate that in the last 15 years, the government may have increased the sanctioned post of veterinary paraprofessionals by 891.

The following Table (Table 3) also indicated that there are 16 different designations of Veterinary Paraprofessionals.

A draft service rule of the department that describes the job profile of various designations for veterinarians and paraprofessionals is currently under the review of the government.

³ The Assam Gazette No.164, dated 28th July 2003

Sl No.	Designations:	Number of Post (Permanent and Temporary)
1	Technical Assistant (Non-vety)	9
2	Fodder inspector	1
3	Fodder supervisor	3
4	Assistant Chemist	1
5	Model Farm organizer	1
6	Field supervisor	1
7	Livestock inspectors	46
8	Manager Gosadan	1
9	Poultry Inspector / Surveillance inspector	6
10	Senior Veterinary Field Assistant	320
11	Lab assistant / Veterinary Assistant (Lab)	71
12	Assistant Farm Manager	14
13	Assistant Fodder inspector	1
14	Exhibition assistant	1
15	Veterinary Field Assistant	1098
16	Poultry Assistant	41
	TOTAL	1615

Table 3 Various categories of para-veterinarians as per Veterinary Subordinate Service Rules, 2002

A review of the designations, draft job profile vis a vis current programs of the department, and the changing scenario of veterinary service delivery indicate a great opportunity for the department to improve its service delivery by undertaking organizational development and cadre review exercise.

The requirement of field veterinarians

The National Commission on Agriculture (1976)⁴ suggested that there should be one veterinarian per 5000 cattle head by the year 2000. Taking this reference as a guide and based on 19th Livestock census data following calculation is made to arrive at the requirement of veterinarians. It is important to note that the National Commission on Agriculture wanted the government to achieve this target way back in the year 2000.

As per 19th Livestock, Census total number of Livestock Standard Unit (LSU)⁵ in Assam is 1,13,80,792 LSU. One cattle head is equivalent to 0.9 LSU⁶

⁴ Report of the National Commission on Agriculture 1976. Part 7: Animal Husbandry. Ministry of Agriculture & Irrigation, 531 pages.

⁵ The Tropical Livestock Unit (TLU) or Livestock Standard Unit (LSU) is used to describe livestock numbers of various species as a single figure that expresses the total amount of livestock present – irrespective of the specific composition

⁶ World Livestock Disease Atlas

Therefore, number of 'field vets' required for Assam $(1,26,45,324 \text{ cattle head} / 5000) = 2,529$

As per departmental gradation list dated on 01/11/2017, the total number of Veterinarians under the Animal Husbandry and Veterinary department is = 788

Veterinarians in executive positions (equivalent or above Sub-divisional Veterinary Office or SDVO level as of 01/11/2017) = 196

The effective number of veterinarians probably available to be 'field vets' (e.g. with designation Veterinary Officer or Block Veterinary Officer -VO/BVO) = 592* (This includes those in Head Quarter, Research and Development, North East Regional Disease Diagnostic Laboratory (NERDDL), Institute of Veterinary Biologicals etc.)

Available private veterinarian with agri-clinic: 107

The ratio of the available number of field veterinarians' vs the required number of veterinarians can be calculated at = $699/2529 \approx 27.6\%$

The deficit of field veterinarian within the state is 72.4%

The Assam Public Service Commission has recently advertised for 113 posts of Veterinary Officer / Block veterinary officer⁷. With the completion of recruitment, this deficit will likely to reduce to 67.88%.

Academic qualification wise registered veterinarian in Assam

As per data obtained from Assam Veterinary Council, the total registered veterinarian (Public and Private) in Assam is 2963. However, the record is inadequate to ascertain how many registered veterinarians are in active service and whether they are working within Assam. As per the register, there are 123 master's degree holders and 18 PhDs. It is obvious that many veterinarians have not registered their higher qualifications with Assam Veterinary Council. The consultation indicated that there is a limited incentive for veterinarians to register their higher qualification at the council as the same does not entitle veterinarians any exclusive privilege.

Among the personnel of the department, 642 (81.5%) had only bachelor's degree in Veterinary Science and Animal Husbandry (BVSc & AH) as the highest academic qualification, while 138 (17.5%) have completed

⁷ Advt. No.01/2018 dated 17th February 2018

masters (Master of Veterinary Science, MVSc). Three (0.4%) personnel have completed the Master of Veterinary Public Health (MVPH) degree. The numbers of personnel in the department having a doctorate degree (Ph.D.) were just 5 (0.6%).

Academic qualification and cadre wise split of the personnel of the department are shown in (Refer Figure 2)

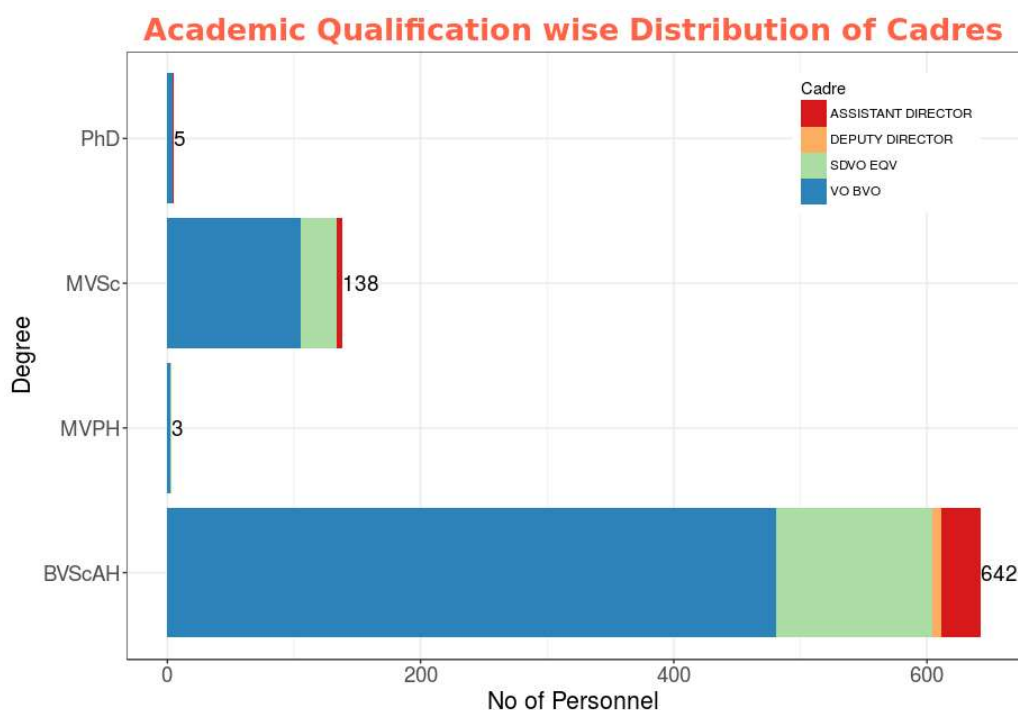


Figure 2 Academic Qualification wise distribution of cadres

The trend of superannuation till 2030

The superannuation projections till 2030 show that 568 personnel (72%) of the present workforce of the department are going to retire by the end of 2030. The yearly volume of superannuation from 01/11/2017 onwards till 31/12/2030 are shown in Figure 3, along with their present cadre. The years 2024 onwards, there will be 40+ personnel retiring from service every year, with maximum 77 personnel going to retire in 2028, whereas this retirement due figure per year ranges between 21 to 33 for the years 2018-2023. Based on the data used for analysis, three persons already retired from the department between 01/11/2017 and 31/12/2017.

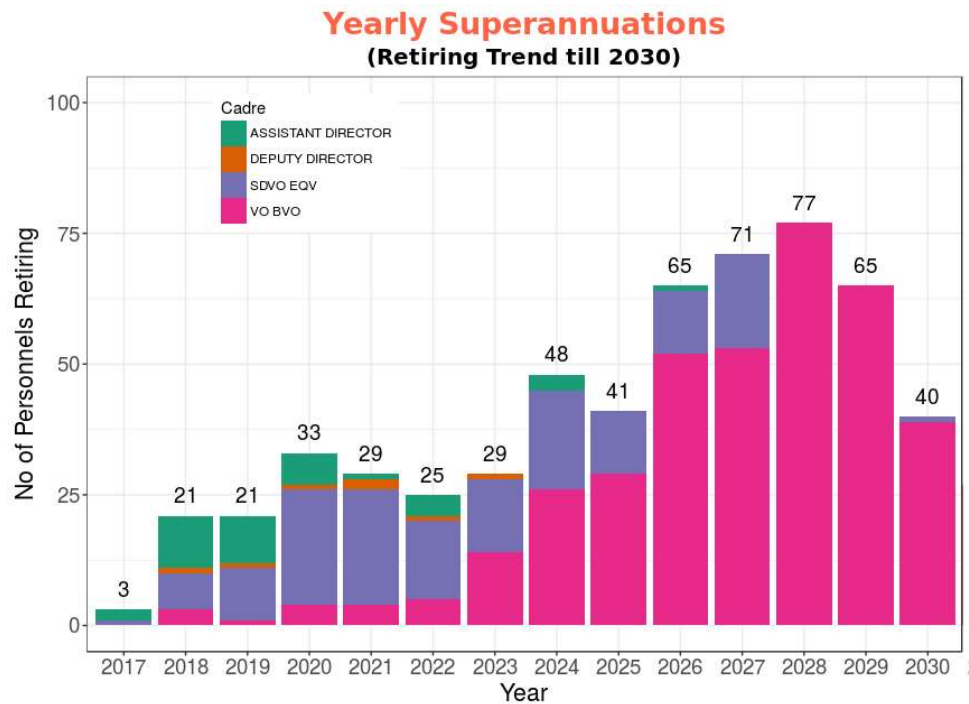


Figure 3 Yearly Superannuation at the Department of Animal Husbandry and Veterinary

Appointment Trends, Average Age of Entry into the Department

Appointment trends of the department based on the volume of appointment made every year and the age of the personnel at the time of joining the departmental service is shown in Figure 4.

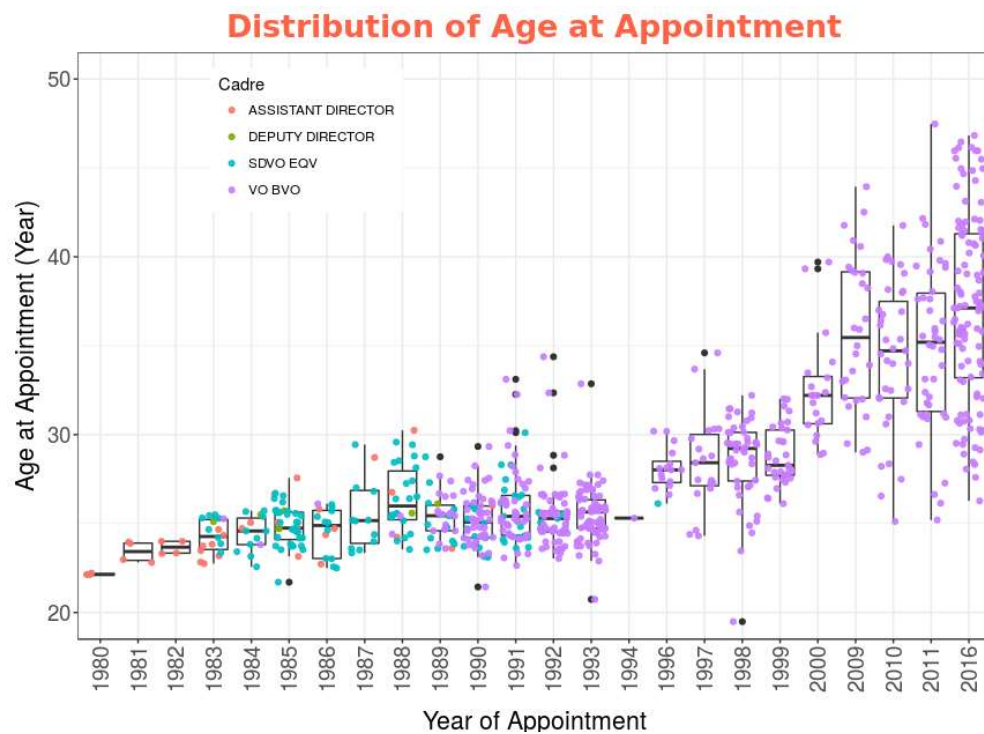


Figure 4 Distribution of Age at Appointment

The following very important observations can be made from the above analysis:

The distribution of age of the appointees is widening since the year 2000. The average age at the time of appointment has noticeably increased from below 30 years till 1999 to 37 years in 2016. This might be a combined effect of irregular appointment drives and a backlog veterinarian, created by the same, waiting to join the department. From available data, it is worth noticing that appointment drives had been taking place regularly, every year, till 2000, except zero appointments in 1995 and noticeably feeble number of appointments in 1994. The effect of these two exceptions can easily be noticed in the form of a sudden jump in the average age of the appointees during the next four regular yearly appointment drives. There are noticeable jumps in the average age parameter as well as widening of the age distributions whenever appointment drives were taking place during the later years (after 2000, appointments took place in 2009, 2010, 2011 and 2016).

The increasing age at entry will force the department to adopt a promotion policy based on merit instead of the current practice of promotion based on seniority.

The number of personnel grouped by their year of joining (and their present cadre) since 1990 is shown in Figure 5

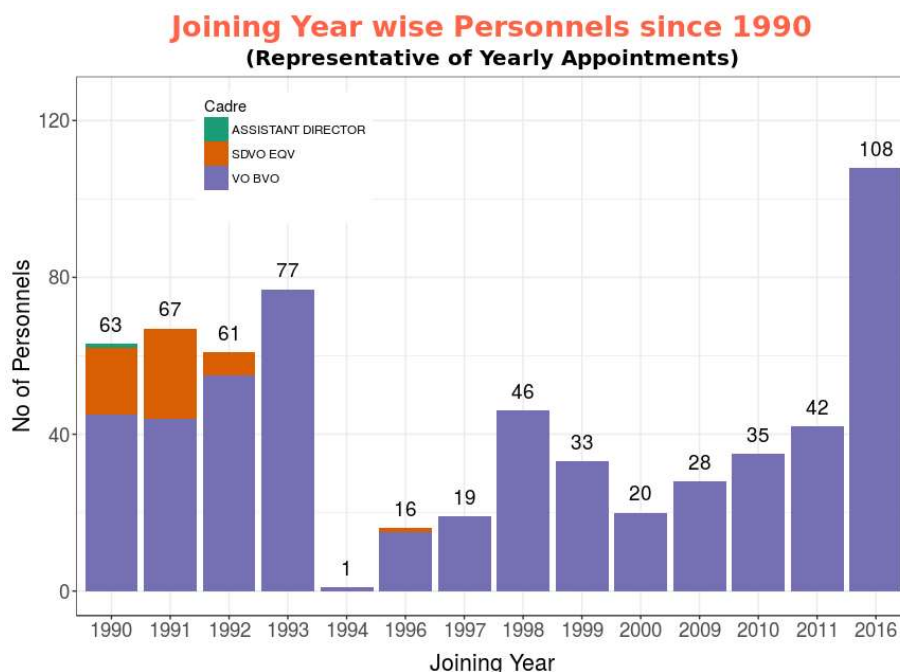


Figure 5 Joining year-wise personnel since 1990

This figure (Figure 5) can be used as a representative of the volume of appointments made in each year. The starting year for this plot was taken to be 1990 as personnel joining the department in this year were very unlikely to retire till 2017-18. People joined but who left the department voluntarily before

superannuation age or untimely demises cannot be accounted for in this analysis. There were 60+ appointments during the period 1990-1993. As per data used for analysis, there is only one appointment in the year 1994. Appointments did not take place at all in the years 1995, 2001-2008, and 2012-2015. Appointments made from 1994 till 2011 were very less compared to the trend during 1990-1993. Probably, the appointment drive made in 2016, was the largest appointment drive by the department in the recent history where 108 veterinarians were appointed during the same year, but only after a five-year gap since the last appointment drive made in 2011.

Functional area wise veterinarians and veterinary paraprofessional:

Though it is important to understand the manpower status in terms of key functional areas of work assigned to a veterinarian and veterinary para-professionals, the same could not be attempted in the light of the absence of approved service rule for both the cadre that defines specific job roles.

Service-related workforce adequacy in Animal Health-related functions.

The number of veterinary personnel (Veterinarians and Veterinary Para-professionals both public and private) in Animal Health-related job profile (excluding people in public health, teaching, and laboratory and other miscellaneous areas) per 10000 LSU is a standard way of expressing workforce adequacy in Animal Health worldwide. Countries report their veterinary related personnel details to OIE (The World Organization for Animal Health) every year⁸. However, India does not report details of veterinary para-professionals.

In the context of South Asia, the ranking of countries in terms of the number of veterinary personnel per 10000 LSU in the year 2012 is shown in Table 4. The year 2012 is selected for reporting because the same is the last livestock census year, and for India, there is only one official report (2012, Planning commission report) that indicated the presence of 52000 veterinary paraprofessionals.

Adequacy of Veterinary Services in South Asia: Country Ranking in terms of personnel per 10000 LSU			
Countries	Number of Personnel	Number Per 10000 LSU	Rank
Sri Lanka	3484	16.5976	1
Maldives	2	16.1288	2
Bhutan	793	12.9096	3
Nepal	14275	8.7598	4

⁸ World Animal Health Information System (WAHIS): http://www.oie.int/wahis_2/wah/health_v7_en.php

India	120098	3.9362	5
Bangladesh	8872	2.9878	6
Pakistan	12850	1.166	7

Table 4 Ranking of countries in South Asia (2012) based personnel (Vet and Para vet) per 10000 LSU

If all sanctioned positions of veterinary personnel associated with the department and 107 private veterinarians (Owner of veterinary related agri-clinic) in field practice as maximum possible number of personnel-related to Animal Health in Assam, the total animal health-related personnel in Assam can be counted as 3616. The 3616 number of personnel serves 1,13,80,792 numbers of LSU (Livestock Standard Unit) in Assam as per the 19th livestock census. The number of LSUs served by per personnel is 3147, in other words, 3.18 personnel serves per 10,000 LSU in Assam.

The personnel in animal health vs LSU in Assam is worse than the all India estimate of 3.9362. This estimate will be further worse in real service delivery context, as large majority of public veterinarians within the department in Assam is not in the front end of service delivery.

As per OIE's WAHIS (the World Animal Health Information System) database of 2012, five countries with maximum veterinary personnel per 10000 LSU are Lebanon (313.72), Hong Kong (248.35), Singapore (173.94), Greenland (110.7170) and Republic of Congo (94.174). Assam can take any of the higher-ranked South Asian country (Refer Table 4) as the benchmark in the near future to improve number of personnel in Animal Health per 10000 LSU.

Field assessment of workforce in district level institutions based on primary data

An attempt was made to collect primary data from various districts level departmental infrastructures to assess the sanctioned vs men in position in these institutions. The response to the survey was limited. An analysis of workforce position status from 9 districts (viz., Cachar, Chirang, Darrang, Dima Hasao, Goalpara, Hailakandi, Jorhat, Karimganj, and Sivasagar) was attempted. These districts had in total of 304 sanctioned positions for veterinarians. But the actual number of veterinarians in position was reported to be only 44.7% of the total sanctioned positions (136/304).

The total number of para-vet positions in these 9 districts was 680 while the actual workforce strength of paraprofessional in position was 403, which is also just 59% of the sanctioned strength.

Stakeholder views related to workforce

The following is the synthesis of view related to the workforce situation:

1. The number of veterinary personnel within the state is grossly inadequate, and this is hampering service delivery.
2. Many positions within the department were originally created as per the guideline of sponsored central sector programs. Following the closer of funding and operation of such programs, positions were retained as a permanent position without changing the nomenclature of designation and assigning a new job role to such sanctioned positions. Though persons in such sanctioned posts are made to work in new programs, there is no administrative order assigning a new job role. Currently, the terminology used for the designation of several schemes or program officials does not conform to the work they are doing. There is an urgent need to give government officials within the department appropriate designations that signify allotted responsibilities.
3. There are limited awareness and recognition of the fact that besides farmers, there are large numbers of people within the sector who are working as various livestock value chain actors. Addressing the need and capacity building of these actors is important for the sector to grow.
4. There are limited opportunities within the state for interaction and knowledge sharing that involves all livestock sector stakeholders across value chains. These interactions are essential to building the capacity of the sector as such for innovation.
5. The sector needs a workforce with multiple expertise to take care of diverse functions related to public health and food safety, animal disease control, veterinary care, livestock production, environment and disaster management, etc. Skill mapping of veterinarians within the department should be done to list out areas of a gap in expertise.
6. The majority of people in the sector are related to the production function. However, of late, there is an increasing requirement of people with expertise in public health, food safety, environment, and disaster management.
7. The workforce within Non-Government Organization/community organizations and collectives like cooperatives can be trained to assist in the delivery of veterinary, extension services, and farm inputs to smallholder livestock farmers in interior areas and to link farmers to market.
8. Panchayats can be encouraged to ensure the engagement of trained paraprofessionals (including retired persons where available) from within the panchayat area itself for frontline veterinary and related public health services under the supervision of a veterinarian.
9. There are reports of the growth of private village level animal health workers in some parts of the state. Steps should be taken to regulate such workers as per the provision of minor veterinary practices regulation.

10. The forthcoming 20th livestock census is likely to generate village level livestock population data in a soft format that can be used to develop a computerized system for continuous assessment of the adequacy of veterinary service-related workforce situations at the level of panchayats.
11. Many officials within the Department of Animal Husbandry and Veterinary are being entrusted with multiple responsibilities without the required support system.
12. Lack of clarity in the goal of any intervention, role definition of various designations, unclear command, or reporting structure is hampering the effectiveness of programs and efficiency of the workforce within the department.
13. Excessive and repetitive reporting requirements and engagement of public field veterinarians and para-veterinarians in other non-service related activities are hampering service delivery.
14. There is an absence of a proper system to assess and ensure adequate workforce availability within public-funded infrastructures mandated with specific functions, e.g., Veterinary service, AI, Farm management disease control, etc.
15. Posting and promotions within the department are not based on competency and merit.
16. There are limited opportunities for in-house training of public and private veterinary service professionals (Vets and Veterinary Paraprofessionals) based on skill gap assessment, assessment of the technical, managerial acumen and awareness of technological advancement in the national and global context.
17. Transfer related practices do not conform to its intended purpose. Veterinary / para-veterinary professionals being development worker needs enough time in a posting to understand the local situation and contribute meaningfully.
18. There is a limited opportunity within the state for a need-based continuous veterinary medical education program for veterinarians and veterinary paraprofessionals.
19. Though every veterinarian requires mandatory registration under the statutory body like Assam Veterinary Council, many veterinarians within the state have not renewed their registration. The veterinary council should be empowered to take punitive actions against people who have not renewed their registration for a long time.
20. A registered veterinarian in Assam does not get an appropriate identity card that indicates privileges.
21. Though registration of para-vet under a statutory body is mandatory under the OIE guideline, not much effort has been made to regulate, improve competency, and maintain quality of para-vet services.
22. Veterinarians and Para-vets work in day to day situations where there is a risk of the spread of diseases from animals. There exist limited provisions for providing support for immunization and / or personal protective equipment (Other than during emergency situations e.g., culling of birds during bird flu)

5-point priority areas for skill development

For farmers

The skill requirement varies with the farming system. Any skill development initiative targeted at livestock and poultry farmers should always be based on situational and need analysis of the immediate target group. The synthesis of stakeholder opinion and farm visits conducted indicated the following five broader priority areas for skill development of livestock and poultry farmers in Assam.

Skills pertaining to:

1. Feed and fodder management (e.g., skills pertaining to procurement, organoleptic quality check etc. green feeding, silage feeding, feeding practices specific to the context of respective farming system and available local resources)
2. Farm environment management and preventive care (e.g., Housing, Bio-security management, vaccination, etc.)
3. First aid and application of approved ethnoveterinary practices
4. Animal breeding (e.g., skills pertaining to selection, planned breeding, culling, replacement, care of young ones, pregnant animals and heifer management, etc.)
5. Business development skills (e.g., Farm record-keeping, entrepreneurial skill, skill related to resource mobilization, scaling up and diversification of operation, product handling and marketing, etc.)

For veterinarians and veterinary paraprofessionals

The scope of the work and time limitation did not permit any elaborate skill mapping and gap analysis of veterinarians employed within the department. The synthesis of stakeholder opinion and one to one interaction with select veterinarians and para-veterinarians in their field indicated following five broader priority areas each for skill development of veterinarians and paraprofessionals, respectively.

For Veterinarians:

1. Development Project Management and administrative skills
2. Advanced clinical, herd health management and husbandry skills for monitoring of health and productivity of herd or flock of farm animals /poultry
3. Advanced skills related to the use of tested protocols, point of care diagnostics, and laboratory investigation for diseases prevailing within the state.

4. Skills pertaining to techno-economic, environmental and financial feasibility analysis of livestock-related enterprises
5. Skills pertaining to the implementation of established protocols e.g., detection of adulterants, meat inspection, handling of livestock products, etc. to ensure safe food of animal origin

For veterinary paraprofessionals:

1. Skill related first aid, safe use of common drugs against basic ailments, including permitted ethnoveterinary practices.
2. Skills related disease reporting, lab sample handling/dispatch, and maintenance of bio-security and bio-safety as per standard protocol.
3. Skills pertaining to livestock /poultry farm management and implementation of animal breeding programs
4. Skills pertaining to animal identification and data collection
5. Leadership skill for community mobilization and engagement

Reorientation of public veterinarians and veterinary paraprofessionals

One to one interactions and group discussions conducted involving public veterinarians indicated that, concurrent to skill development, both veterinarians and paraprofessionals within the state should be re-oriented on the following aspects. This is primarily in the context of the state.

1. Public veterinary service is the only option for poor livestock keepers' in remote villages, who need the service to protect their livelihood. Public veterinary services in recent years within the state have shown a tendency of focusing only on areas showing commercial activity.
2. Personnel engaged with public veterinary service should think beyond just animal and its owner. Their prime duty is also to protect the interest of consumers of livestock products and the public in general. Service personnel working in the field should be reoriented towards emerging areas of public health concerns.
3. The majority of the field service personnel with development-related work responsibility, have a limited idea of the contributions made by various types of activities or people within a livestock value chain. The tendency is to work with farmers alone to bring change. A value chain orientation is needed for the effective design and implementation of projects.

4. The majority of field personnel's service approach is curative only, and they operate at an individual animal level only. To ensure adequate and affordable service, preventive / herd health orientation is a pre-requisite. The focus should essentially be on the herd of animals.
5. The orientation about the importance of timely reporting, surveillance activity, and confirmatory diagnosis using laboratory is a 'missing link' that has prevented effective designing and implementation of mass disease control programs.
6. Service personnel needs reorientation so that they focus not just on handling specific disease presented with but also on ensuring the productivity of treated animal through better nutrition and farm management.
7. Field personnel needs orientation to form area-specific teams to ensure follow up of cases and planned preventive interventions. The service outreach can be improved a lot with effective team-building between veterinarians and veterinary paraprofessional.
8. The current veterinary service at the field level in most of the cases can be compared with 'fire brigade' service. A veterinarians / para-veterinarian, in most cases, needs to attend animals who are at the last stage of ailment with symptoms needing emergency care only. The situation forces service providers to use excessive medicines. The treatment becomes costly, and animals too lose its productivity even if cured with treatment. A reorientation is needed whereby field personnel can work with a group of farmers under an annual arrangement for periodic preventive health monitoring using laboratory services.

Strategy related rejuvenation of government training institutions

The following is the suggested strategy for rejuvenation of government training institutions:

1. Reshaping of each training organization as Independent Strategic Unit (ISU) for Resource allocation, independence in program design, and performance evaluation.
2. Pro-active implementation of forthcoming Veterinary Council of India (VCI) regulation to make Continuous Veterinary Medical Education (CVME) training credit essential for the renewal of veterinarians' license.
3. Augmentation of the partnership between Officers' Training Institute (OTI) and professional associations /private agencies for targeted CVME and short-term management training for officials.
4. Affiliation of veterinary field assistant and all farm training-related institutions to Agriculture Skill Council of India (ASCI) for training under National Occupational Standards (NOS)

Excerpts of recommendations with link to workforce analysis

Organizational restructuring and description of job profile with competency requirement

The role of Animal Husbandry and Veterinary department is fast changing in recent times. The requirement of the workforce at district level field positions have changed with time, whereas there is an enhanced need of trained workforce for specialized functions at headquarter. There is a large number of redundant designations within the department for which there exists no clear job profile and description of the competency requirement.

The situation cannot be continued with short term measures like administrative orders delegating the new task to incumbent officers of such redundant designations. The situation is likely to become further complicated as large-scale promotions, and fresh recruitment is due in recent times.

For future strengthening of the department, there is a perceived need for modified organizational structure (both at state and district level) and development of competency framework for various positions. A professional organization development (OD) exercise is pre-requisite for such an initiative. Subject to the suggestion of OD exercise, the need-based change in organizational structure and development of competency framework for various designation/functions should be undertaken to ensure the smooth running of departmental functions across the following 8 suggested functional divisions.

1. Administration
2. Special Program implementation.
3. Veterinary Care
4. Epidemiology, Disease Control, and Public Health
5. Promotion of livestock ownership, Livestock/poultry breeding support
6. Extension, Skilling and Entrepreneurial support
7. Enterprise, value chain support, and Facilitation of Livestock/poultry product marketing and trade.
8. Estate management, statistics, and IT support and Public relation

Entry-level recruitment should essentially focus on getting talents from multiple specializations so that they can be groomed for functions under the above functional divisions. It is also possible, on the part of the department to recruit through the direct advertisement for certain positions that need specialized skill sets.

The followings are the steps that an organizational development (OD) exercise needs to undertake:

1. Sub- institution wise workforce requirement analysis and review of designation/job profile thereof
2. Re-allocation of the workforce at headquarter and districts based on functional analysis.
3. Re-allocation of the workforce at critical skill-focused positions, e.g., positions in laboratories, breeding stations, etc. based on competency review of existing officers
4. Situational assessment to ensure maximum cadre allotment to field level functions linked to the front end of service delivery.
5. Preparation of organizational and institutional job charts at the level of headquarter and districts with a clear indication of the chain of command and reporting requirements.

Revamping of the system of internal coordination, consultation, reporting, control, discipline and learning

Many internal stakeholders within the department have raised the issue of the inadequate system of coordination, consultation, and feedback involving institutions both at headquarter and districts. Lack of clarity in the command structure, which is linked to the absence of proper service rule has affected the implementation of programs and projects. Inadequate monitoring and supervision that recognizes and motivates officials have affected the work culture.

There is also an inadequate system to augment need-based team building. Many officials are forced to deliver multiple functions, while others remained relatively less occupied. A system of control needs to be placed to discourage practices aimed at avoiding responsibility, such as intentional poor performance and informal delegation of duty at any given responsibility.

There is also a need to improve the financial control ensuring the independence of service units/farms that generate revenues and are required to make expenses within a short period. This is more important in the context that service units/livestock farms of the department deal with live animals, and day to day operations cannot wait for want of money. Many of the livestock farms of the department are suffering from a lack of financial freedom. Improvement in financial control, which is expected from the ongoing administrative reform initiative of the Government of Assam, is also important for the smooth execution of contractual works at various levels.

The growth and vibrancy of an organization depend on the environment of mutual trust, discipline, and scope of learning/sharing. A professional organizational development (OD) exercise mentioned above, if commissioned by the department, should be able to provide input in this connection.

Strengthening of the department will require institutionalization of designed Management Information System (MIS) linking top management with every employee through a mobile-based application.

Mandatory provision of wearable identity cards, dress code for veterinarians, and veterinary paraprofessionals while rendering services in field situations including encouragement for the use of personal protective equipment (PPE) can help in bringing discipline. This will also improve the public visibility of departmental services and the image of the department thereof.

Retraining of veterinarians and Para vets based on competency gap

In recent years, the World Organization for Animal Health (OIE) has worked on global standards and advanced competencies required by veterinarians and para-veterinarians to perform various public functions. Written and standard global competencies, which are required to be tailored to country and regional need, have permitted the development of appropriate and uniform continuous veterinary medical education programs for re-training / continuous education of professionals. For strengthening of the department, targeted capacity building of veterinarians and veterinary paraprofessionals as per identified competency gap will be a pre-requisite. The department should commission human resource audit essentially covering competency mapping of existing professionals' vis a vis required competencies in the local context. Assam Veterinary Council could implement such initiative under its mandated role of maintenance of professional standards. Registration, regulation, and continuous veterinary medical education of veterinary paraprofessionals is of equal importance in this regard. The department should decide to follow the OIE recommendation of registration and regulation of veterinary paraprofessionals. The guideline for standard Veterinary paraprofessionals training is already available with the Agriculture Skill Council of India. The department should affiliate its Veterinary paraprofessional training schools to Agriculture Skill Council of India for standard and certified training that is recognized across the country.

The multidisciplinary approach to problem solving and Partnership

Addressing development management related challenges in the field of veterinary service delivery and livestock development requires multi-disciplinary team building. Such a team should comprise of experts (both industry and academic) from agriculture, social science, communication, information technology, human health, environment, and food sector experts.

The department should constitute an empowered multidisciplinary ‘Advisory group for Strategic Initiatives (AGSI)’ with a fixed tenure. A full-time department deputed nodal officer should be appointed as a member secretary to the group. The terms of reference of the committee should be as follows:

1. To handhold planning and project division for strategic initiatives and inter-sectoral programs and projects
2. To periodically review research findings related to livestock sector development, investment environment, etc. and engage with academic institutions to promote need-based research (including impact studies of departmental programs)
3. To assist in the regular outside assessment of the functioning of the department and allied agencies and support office of the director for the effectiveness of programs and projects.
4. To handhold planning division for resource mapping and augmentation of collaborative projects and partnerships
5. To act as an interface between department and citizens at large to receive and facilitate response to feedback and suggestions.