

# ANIMAL WELFARE

Department of Physiology, Biochemistry and Pharmacology, CVASU

Animal Welfare Introduction in Bangladesh

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It gives me immense pleasure to publish the animal welfare bulletin for the first time in Bangladesh from Chattogram Veterinary and Animal Sciences University (CVASU), Chattogram, Bangladesh. As the editor, I am really privileged to welcome you all to this animal welfare bulletin through which you will get a good summary of the journey of animal welfare science in Bangladesh; from the inception to the development of this domain to date.

Animal welfare has a rich history and provides unequivocal support to animals throughout the world. With the growth of animal production, the issue of animal welfare has become a real concern. Being a very densely populated country, Bangladesh needs to have a good hub of livestock

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farms. In addition, the natural greeneries and diversified geography have blessed this country with a lot of wild fauna.

The scientific study of animal welfare in Bangladesh was identified as a new and time-demanding scientific area worthy of study. The Chattogram Veterinary and Animal Sciences University (CVASU) have recognized this issue as important for Bangladesh for the first time. In March 2005, we came to know about the fantastic domain of animal welfare from Dr. S Abdul Rahman, the then Secretary of Commonwealth Veterinary Association during his visit to the then Chittagong Veterinary College. In Bangladesh, animal welfare had century-old legal support under "The Prevention of Cruelty to Animal Act, 1942 which was barely functional. The loose grip of that law was not enough to prevent the infliction of unnecessary pain and suffering on animals. Fortunately, a newer act "Animal Welfare Act" has been passed in parliament in 2019 and amended the previous obsolete law relating to the prevention of cruelty to animals.

The bulletin has compiled all information on animal welfare especially its inception and development from 2006 to date. It tries to show how the idea in this field has arisen in Bangladesh. Compiling the information related to the subject, in particular, birth and growth of animal welfare science, animal welfare exchange project, animal welfare expertise and inclusion of animal welfare course in the veterinary undergraduate and postgraduate curriculum, animal welfare talk and workshop in home and abroad, OIE animal welfare appreciation, animal welfare resource materials, and outreach service are the important highlights of this bulletin.

The very first research and exchange program on animal welfare was started in 2008 between CVASU and the Royal Veterinary College (RVC), UK. The project focused on the welfare of cattle and water buffalo exported from India into Bangladesh. The objectives were to develop research expertise and improve awareness of animal welfare in Bangladesh. Since then, there have been significant numbers of research projects completed by CVASU faculties. The research mainly focused on farm animal welfare like on-farm welfare assessment of dairy animals. welfare assessment of meat birds at farm level, during transport and at live bird market, and welfare assessment of Black Bengal goat. Moreover, visitors' attitudes and their impact on zoo animals' behavior and welfare were also assessed, recently. An applied and time-demanding project on the management of the free-roaming dog in CVASU and its surrounding area of Chattogram city by neutering technique was performed.

The inclusion of animal welfare courses into the veterinary curriculum has been a part of the mission statement of the faculty of veterinary medicine of CVASU since the concepts of animal welfare were recognized by the faculties and students in 2006. Therefore, the recent incorporation of animal welfare science in the updated veterinary curriculum at CVASU will open a new dimension of knowledge in front of the vet students and will make them an ambassador of animal well-being and ethical veterinary practice in society. The new veterinary graduates will enter the government veterinary service in Bangladesh and they have many professional responsibilities to ensure the health and welfare of the livestock population. The CVASU faculty had an opportunity to attend the animal welfare training course at Cambridge University. This course has facilitated the opportunity to update the knowledge of animal welfare science. Knowledge gathered from the Cambridge course and the materials from the course were excellent tools to construct the new animal welfare course at CVASU for the veterinary students.

This bulletin has also highlighted the diverse animal welfare talks that were delivered in the various scientific conferences of both home and abroad since the issues of animal welfare were identified by CVASU faculty. Attending various animal welfare workshop and their key findings are also briefed in this bulletin. Participating in workshops and conferences at home and abroad was one of the

opportunities to share current knowledge on animal welfare in Bangladesh with those in the scientific community from other countries. Moreover, all those programs were a great chance to observe the findings of other scientists that helped to improve research career in modern animal welfare science. Those also have facilitated future collaborations with animal welfare scientists across the world. All these scientific congregations were a great opportunity to establish a better avenue of knowledge sharing which in turn will be used for the betterment of the animals in Bangladesh.

Information on the collection of animal welfare recourses materials and animal welfare outreach services is one of the important messages that you will update from this bulletin. Since the beginning of animal welfare science, the CVASU faculty has collected many resource materials through personal communication. The up-to-date books on animal welfare and continuous collection of animal welfare journals are the important ones. Delivering the talk to the community livestock worker, dairy and poultry entrepreneurs and other relevant professionals is the outreach service on animal welfare is regularly done by CVASU faculty. Writing a popular article on diverse animal welfare topics to mass media is also one of the ways to send messages to the general and professional people for better health and welfare of both humans and animals. Recent work on the neutering program for stray dogs at CVASU and its surrounding area of Chattogram city is an effective tool to control them and eliminate rabies for both animals and humans.

I hope the bulletin will be a valuable instrument to several groups of readers. The principal audience consists of those who want an introduction to animal welfare science. It will serve the long-standing need of the veterinary students, teachers, research workers, and other stakeholders. I trust this issue of the bulletin will be helpful to the students, veterinarians, and researchers in developing a basic understanding of animal welfare sciences. In conclusion, I sincerely apologize for any mistakes in this bulletin and will be obliged to be reported from you about those.

Professor Monamimau Rashedul Alam DVM, MS, Ph.D
Editor

#### THE PATHFINDERS



For all good works, encouraging and pathfinding mentors are necessary. Dr. Mohammad Rashedul Alam (center) was privileged to have two amazing persons as mentors in his journey into animal welfare. These two noteworthy personalities are Professor Dr. Nitish C. Debnath, the then Principal of the Chittagong Government Veterinary College (CGVC, Right) and then founding Vice Chancellor of the Chattogram Veterinary and Animal Sciences University, and Professor Dr. Sira Abdul Rahman, Ex-Dean of Bangalore Veterinary College and President of the Commonwealth Veterinary Association (Left). Professor Dr. Debnath invited Professor Dr. Rahman to the Annual Scientific Conference of the CGVC in 2005. Dr. Rahman exchanged educational foresights and thoughts with the faculties of CGVC especially on how to update the veterinary curriculum in Bangladesh. He emphasized including animal welfare courses in the veterinary curriculum at that meeting and asked that research be started in that unexplored area in Bangladesh for better animal health. The interesting phrase "Animal Welfare" influenced Dr. Alam to work in this domain. Since then Dr. Alam had been devoted to research and motivational and extension works in animal welfare in Bangladesh. Dr. Alam is the first veterinary faculty member to introduce the concept of animal welfare to the nation at a professional veterinary level at the 4th Annual Scientific Conference of the CGVC in 2006. He is the first teacher on animal welfare in Bangladesh. He has been teaching an animal welfare course for veterinary students. Dr. Alam warmly acknowledges these two influential legendary veterinary professionals of this sub-continent, Dr. NC Debnath and Dr. SA Rahman, for their foresight and earnest motivation of Dr. Alam to establish animal welfare science in Bangladesh.

## INCEPTION OF ANIMAL WELFARE IN BANGLADESH

Animal welfare is gaining more recognition within the veterinary profession as a necessary competency for every veterinarian. The development of animal welfare is an ongoing process with the major international effort being led by the World Organization for Animal Health (OIE). As per OIE recommendations, fresh veterinary graduates should be well versed in modern animal welfare science before starting their professional practice. In Bangladesh, the scientific study of animal welfare was mentioned back in 2005 as a new discipline needed by veterinary professionals. The Chattogram Veterinary and Animal Sciences University (CVASU) have recognized this issue as important for Bangladesh for the first time. For example, welfare assessments of cattle and water buffalo exported from India into Bangladesh have been studied. Earlier Dr. S Abdul Rahman, President of the Commonwealth Veterinary Association proposed that the university introduce an animal welfare course into the veterinary curriculum during his visit in 2005. "Animal Welfare and Veterinary Ethics" has been introduced into the veterinary curriculum of CVASU in 2014 for the first time anywhere in Bangladesh. Animal welfare is now the established science in CVASU and has been continuing the effort significantly to improve it through teaching, research, community service, and outreach.

It was a pleasant history to attend the workshop entitled "Concepts in Animal Welfare" at Bangalore, India in 2005. The objective of that workshop was to sensitize the veterinary faculties about the academic and research importance of animal welfare for veterinary students in India and Bangladesh.



Delegates at the "National Workshops on Concepts in Animal Welfare", Bangalore, India 2005. [2]

In 2006 animal welfare received official encouragement to become a new scientific discipline to be studied and researched in Bangladesh (Alam, 2006) and since then research and teaching programs have been developing gradually. Mohammad Rashedul Alam was the first veterinary faculty to introduce the concept of animal welfare at the veterinary professional level at the 4thAnnual Scientific Conference of the Chattogram Veterinary and Animal Sciences University on the topic "Animal Welfare: An Introduction for Bangladesh".





Dr Alam was presenting the first paper on animal welfare at the 4th Annual Scientific Conference of CVASU, Chattogram, Bangladesh, 2006. [3][4]

The conference was meant to send a new message to the veterinary professional mainly how to develop awareness and how to have animal welfare incorporated into the veterinary curriculum. CVASU has developed some animal welfare day one skill in their internship to make the students acquainted with the necessary guidelines that should be followed during their professional work. Very recently the parliament of Bangladesh has amended the century-old act regarding animal welfare and increased the penalty for deliberate animal abuse or actions.

# FIRST ANIMAL WELFARE EDUCATION AND RESEARCH EXCHANGE PROGRAM IN BANGLADESH

The first exchange program on animal welfare education and research was initiated between Chattogram Veterinary and Animal Sciences University, Bangladesh, and Royal Veterinary College (RVC), UK in 2008. This exchange program was sponsored by Prime Minister Initiative-2 (PMI2) to connect a research cooperation project between UK Higher Education Institutions (HEIs) and Higher Education Institutions in the PMI2 country like Bangladesh and administered by British Council.

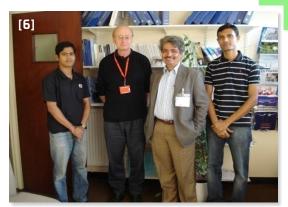






First collaborative project on animal welfare between CVASU and RVC under PMI2 Connect administered by British Council. [5]

A total of eight (8) staff exchange their animal welfare research and education between these two institutes. Professor Neville Gregory of RVC was the key person of animal welfare, who trained the other staff and led the overall research. The other staffs from RVC were Prof. Ayona Silva Fletcher, Director, Veterinary Education, Joanne Widdicombe, and Alex Kempson Undergraduate student of RVC. On the other hand, the country-partner to the UK were Prof. Nitish C Debnath, Dr. Shahab Uddin and Md Abdul Jabbar. Prof Mohammad Rashedul Alam was the lead researcher of the PMI2 Connect project.



PMI2 Research Associates with Project Managers. [6]



#### Research Associates of RVC was presenting their research outcome at CVASU. [7]

The aim of the PMI2 connect was to strengthen research links, capacity building at HEIs, and build effective and sustainable partnerships. The title of the project was 'Welfare of cattle and water buffalo exported from India into Bangladesh'. The objectives were to develop research expertise and improve awareness of animal welfare in Bangladesh. The evaluation of animal welfare standards at markets and slaughterhouses was also assessed. The interchange of staff and students between two countries and strategy for future work on animal welfare in Bangladesh was another objective. The research area was to evaluate the transport conditions; to examine the cattle and water buffalo at livestock markets for injuries, dehydration, and heat stress; to examine the casting method used just prior to slaughter, and to evaluate the efficacy of the halal cut and how it might be improved consistent with religions requirements. This research outcome was published in the scientific iournal that hopefully helping to professional bodies to improve the welfare standard during animal transport and slaughter in Bangladesh.



PMI2 Research Associates (MA Jabbar and MS Uddin) with Lead Researcher.<sup>[8]</sup>



PMI2 Lead Researcher Dr Alam was briefing the progress of research work to project Manager (NC Debnath and NG Gregory). [9]

# RESEARCH ASSOCIATE'S REFLECTION

# The inaugural animal welfare study in Bangladesh and my memories

DR. MD ABDUL JABBAR



As a student of veterinary science, I was taught that animal also have the feeling of pain and happiness as human being. But then, the real welfare science was exposed to me after I had an opportunity to work on a project with

Professor Mohammad Rashedul Alam of CVASU and Professor Neville Gregory from RVC, UK. The work was focused on the welfare of cattle and buffalo transported from India to cattle markets in Bangladesh. It was a very challenging one but exciting. We worked at the cattle market at noon of summer in Dhaka and Chattogram, went to slaughter houses at 3 am in the morning, collected samples from the canals and so on. It was not about straight-forward veterinary science, rather it was all about managing the animal traders and slaughter house personnel for their cooperation, understanding their problems, safe guarding the foreign guest in such environment, resolving technical and tactical challenges and so on. We were baptized on tackling and solving problems at field level. That's when I realized that working in the field condition is far more challenging than working in lab or table.

We worked wholeheartedly and that work eventually led us to visit Royal Veterinary College; just before graduation. We were trained on animal welfare evaluation and water quality assessment, and got the opportunity to work with world class professionals and learned how to adopt in international work environment. These experiences helped me to get a good job in USAID just after graduation. The published articles on our work help me to champion the DGDC scholarship for MSc study in Belgium. Honestly saying I and, my friend, Shahab Uddin started working not for any big benefit rather to learn some work. However, in the end, what we gained is priceless, the memories we got is unforgettable.

My first research experience, first publication, first

opportunity to work in multinational research platform, first international flight, first presentation in international scientific conference all were the fruits of that animal welfare project. I feel like where I stand at this moment of my life, the base was paved by the DVM degree at CVASU and the pillars of success was built by the animal welfare project. The bottom-line is that exposure of working in that project increased my capacity of critical thinking, scientific writing, level of English speaking, capacity to work in the field condition and multicultural platform. This single opportunity tremendously influenced my life in knowledge perspective, critical thinking, scientific study, capacity building, and career. I'm thankful to Professor Rashedul Alam for exposing me to so many opportunities worldwide.

#### DR. Md Abdul Jabbar (DVM 7th Batch, CVASU)

Medical Laboratory Specialist United States Army Research Institute of Environmental Medicine US Army Medical Research and Material Command, USA

E-mail: jabbar\_cvu@yahoo.com

# My observation on welfare of animal in transportation and slaughterhouse

DR. MD. SHAHAB UDDIN



It was a normal typical day of the final year in our DVM course. Professor Dr. Rashedul Alarm offered me and my friend Abdul Jabbar to work in his research project. Till that day, neither my friend nor I had any idea on academic research! Little we knew

that work would lead us to gain knowledge and experiences that would help both of us in future. Our mentor, Dr. Alam was very passionate about animal welfare whereas we were naive on this topic. So, it was an amazing learning opportunity for us. He wanted to reveal the stress and physical injuries that occur during transport to slaughter, from market to abattoir.

As a Muslim majority country, we are supposed to be kind to any animal, but unfortunately, the animal management practice is very different from that, and sometimes very disturbing. Our long experience of

data collection during humid days Dhaka and Chattogram explored some grey sides of animal cruelty. These going-to-be-slaughtered cattle and buffaloes are generally transported by trucks. The picture of a truck—packed with animals—is a typical one for the highways of Bangladesh. But during the unloading time, the real picture is displayed. If you ever got chance to look inside, you could find this horrible, wet, muddy and excreta filled condition where one after another—thirsty, hungry and definitely, exhausted—animal are coming down from vehicle. These animals have traveled across countries, for about 16 to 48 hours, standing like slaves in literally no movement space, under baking sun, soaked in rain and shivered in cold winter, without any provision of water or food, carrying old and new injuries. The animals are packed in such a way that stockman can walk over the back of animal like plain land. Some stockmen put green chilli inside eyes of cows to stop them from sleeping during journey!

At slaughter house, a new chapter of cruelty begins. Animals are tied with short ropes, pushed to the concrete floor by force. Several animals are kept in that condition for unlimited time before being slaughtered and then severed by short knives in front of another one. The whole process is far from the ideal from welfare and religious standards. These animals suffered during transport and had to suffer even at their penultimate hours.

These findings made us more sentient towards animal as a person and encouraged us to reveal the real problems of Bangladesh under the curtain. For that, all the credits and heartfelt thanks is for Professor Dr. Rashedul Alam; who gave us the opportunity to work in his project and learn from famous scientist Dr. N.G. Gregory and A. Silva Fletcher from Royal Veterinary College, UK, intern Alex and Joe. I still feel like working again with him!

#### DR. Md. Shahab Uddin (DVM 7th Batch, CVASU)

Manager

MEAL (Monitoring, Evaluation, Accountability and Learning) and Communication Muslim Aid-UK Bangladesh

and

**Guest Faculty** 

Development Studies, Department of Economics Jagannath University, Dhaka

E-mail: kazishahab@gmail.com

#### **ANIMAL WELFARE COURSE**

The CVASU faculty was lucky enough to have an opportunity to attend the animal welfare training course at Cambridge University in 2006. This course was set up to provide the basic foundational knowledge of animal welfare science. This course was designed for those taking the Royal College of Veterinary Surgeons (RCVS) certificate or diploma in animal welfare science, ethics, and law but is open to persons from any nationality with appropriate biological knowledge. The courses were taught by many knowledgeable people under the outstanding leadership of "Professor Donald M. Broom". The training was divided into four modules: modules 1. Welfare concepts and assessment 2. Farm animal welfare 3. Law and companion animals 4. Principles of ethics in-relation-to animal use. Regulatory physiology, animal behavior, and the basic function of the immune system and the brain are the prerequisites to understanding the animal's many bodily systems and also to welfare assessment. The welfare of farm animals is closely associated with the financial matter. Animal welfare issues such as health, housing, routine husbandry, system, transportation, slaughter, and routine painful procedure all come into play in working with the farm animal. The human-animal interrelation and the welfare legislation are the major issues in protecting the animals from abuse and cruelty. On the other hand, ethics is a vital subject area when dealing with the many ethical animal raising issues on the farm, and with the companion and zoo animals. How to solve the many ethical dilemmas and take these into account in practical decisions remains a challenge.

The lectures covered a wide range of topics on concepts of animal welfare, welfare assessment in



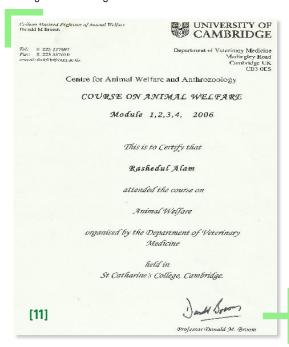
Lecture delivered by Prof Donald Broom (First professor of animal welfare in the world). [10]

terms of behavior, motivation, physiological indicators of welfare, on-farm animal housing, transport operations, and slaughter, companion animal, various types of legislation, ethics, and the use of laboratory animals and their management. The discussion of different definitions: welfare, health, feelings, emotions, learning, habituation, stereotypy, needs, stress, pain, malaise, motivation, sustainability, and humane along with some important tests in terms of welfare assessment like preference, choice, operant, and aversion tests were the highlights of this module. Heart rate, blood chemistry, the adrenal response, different hematobiochemical parameters, stereotypy, immune system status, brain changes, and behavioral pathology are the main indicators used to assess the welfare of animals. Neuroendocrinology, animal behavior, and the basic function of the immune system and the brain were summarized with a specific focus on usefulness for welfare assessment.

The lecture content on farm animal welfare consisted of detailed information about the different farm animal's welfare in terms of their housing and management, behavioral problems, transport, slaughter, genetic selection, and various forms of mutilations. The welfare of pigs, cattle, laying hens, broilers, and farmed fish was discussed. Factors influencing the development of human attitudes towards animals, animals rights versus animal welfare, the link between animal abuse and family violence, animal-assisted therapy, discussions about stray animals and the modern alternatives for controlling urban cat and dog population, and the principles relating to euthanasia and humane killing of the dog were all topics of discussion in the section of companion animal welfare and law. The discussion of veterinary ethics and etiquette as concerned with the relationships among veterinarians, their clients, patients, and other professional bodies were so interactive and relevant. The laboratory animals and their housing, management, legislation, implications of animal use in biomedical research, and the importance of the three Rs (reduction in the numbers of animals needed in an experiment, replacement of animals in experiments with other methods, and the refinement of protocols to decrease the severity of inhumane procedures) were thoroughly discussed as the last topic of this module.

The Cambridge course has enriched professional knowledge on animal welfare. The materials learned through the course have some effective tools for

teaching the veterinary students at CVASU and also ideas for developing and promoting animal welfare in Bangladesh through research. [11]



#### ANIMAL WELFARE COURSE IN THE CVASU VETERINARY CURRICULUM FOR THE FIRST TIME IN BANGLADESH

The challenges of developing an appropriate curriculum in animal welfare as part of an undergraduate veterinary program are numerous. Currently, there are many veterinary schools in developed countries where animal welfare courses are being taught as an obligatory component of the veterinary undergraduate or graduate program depending on the custom of the country. OIE Members recently acknowledged a need for more emphasis on animal welfare and ethics in the teaching curriculum for undergraduate veterinary students. The CVASU has accepted the concept that animal welfare needs to be incorporated into the veterinary curriculum. Recently CVASU revised its curriculum for undergraduate veterinary students.

The inclusion of animal welfare courses into the veterinary curriculum has been a part of the Mission Statement of the Faculty of Veterinary Medicine of CVASU since the concepts of animal welfare were recognized by the faculties and students in 2006 (Alam, 2008). Since then Prof. Dr. Rashedul Alam

has been trying to convince the academic council to introduce the animal welfare course into the veterinary curriculum. A dedicated subject titled "Animal Welfare and Ethics" has been given a separate credit course in the veterinary curriculum of CVASU in 2014 for the first time in Bangladesh.



Dedicated course on "Animal Welfare and Veterinary Ethics" approved by Academic Council of CVASU in 2014 for the first time in Bangladesh. [12]

Veterinarians belong to the only profession that has holistic animal welfare expertise because of their extensive education thus their professional ethics oblige them to work for the benefit of animal welfare and society. It is our pleasure that the other veterinary faculties in Bangladesh are trying to introduce the animal welfare course in their veterinary curriculum. The new veterinary graduates will enter the government veterinary service in Bangladesh and they have many professional responsibilities to ensure the health and welfare of the livestock population.

#### STUDENTS' REFLECTION



Dr. Tanvir Ahmad Nizami (DVM 19th batch, CVASU)

"The greatness of a nation and its moral progress can be judged by the way its animals are treated" - Mahatma Gandhi

From the inception of the civilization, human beings are greatly

depended on animals; either for food or for the loyal company. Being a vet, we have to handle and treat a lot of animals of diversified species. During this handling, the animals are at risk as they may suffer during the process. That's why, it is necessary for us

to know about the welfare of animals and maintain it in our work environment. A big thanks to Department of Physiology, Biochemistry, and Pharmacology, CVASU as they have included one of the most important and time demanding course entitled as "Animal Welfare and Veterinary Ethics" in undergraduate veterinary curriculum. This course has helped us to learn OIE animal welfare guidelines, our duties and responsibilities to the animals, and the ethics we should follow at our work. Specially, we feel very lucky to be the pioneer batch to study this course in 4thyear—our penultimate in-campus year—so that we can be more empathic towards animal before going to our internship. Again, congratulations to CVASU for being the forerunner of animal welfare course in Bangladesh. I hope this course will be added to DVM curriculum in other universities as well.



Dr. Saida Zinnurine disciplines have been (DVM 19th batch, CVASU) being underemphasized in

Animal welfare is not just a subject, rather a custodian of animals' interests. Being a veterinarian, we are very fortunate to provide leadership and expertise in welfare of animals. But unfortunately, animal welfare and its related disciplines have been

our veterinary curriculum whereas it was supposed to be a prioritized subject of at veterinary universities. I feel very fortunate that we were introduced to Animal Welfare & Veterinary Ethics during the fourth year first semester in a mandatory one credit course. This course was challenging, effective, and has helped us to identify and discuss ethical dilemmas during veterinary profession and animal rearing. The introduction of this subject is a big leap for CVASU, veterinarian profession and academia.



Dr. Easrat Jahan Esha (DVM 20th batch, CVASU)

Anatole France said "Until one has loved an animal, a part of one's soul remains un-awakened".

From my point of view, animal welfare is one of the biggest necessary issues in veterinary and animal industry, and this realization reached the core of my heart after completing the 'Animal Welfare and Veterinary Ethics' course in 4th year 1st semester of our DVM curricula. Animal welfare can't be obtained just by giving foods or shelter to animals. This science is much more versatile and cutting-edge. There are several rules, regulations and guidelines which we need to follow as a veterinarian. It can be said that no one can be a good vet without learning how to treat an animal with warm and kindlier approach. Thanks to our teachers who established this course and made it easily understandable to us.



Dr. Khadija Begum veterinarians individually.
(DVM 20th batch, CVASU) It is not only about rearing

"We can judge the heart of a man by his treatment of animals" - Immanueal Kant

Animal Welfare is a core mandate of the veterinary community generally, and veterinarians individually. It is not only about rearing

of animals, also about how we treat, care of animals for its well-being. A human being can be judged by his attitude towards his pets or the animals at his farm. This realization solely came to me after completing the course "Animal Welfare & Veterinary Ethics" at 4th year 1st semester which was first included in veterinary course in our university. Recently I've awarded from Australia for getting highest marks in this course. I've awarded 3 books-"The Welfare of Cattle", "Cattle & Sheep Medicineself assessment color review" and "Small Animal Medicine & Metabolic Disorders-self assessment color review. I would like to give thank to Dr. Rebecca Doyle, senior lecturer, University of Melbourne, Australia for selecting me for this award, and my honorable course teacher Prof. Mohammad Rashedul Alam to give me this amazing opportunity and to make this challenging course easily understandable to us which will be very important for our professional life.



Dr. Shourav Datta Roni (DVM 21st batch, CVASU)

In 4th year and 1st semester, we were fortunate to study on Animal Welfare and Veterinary Ethics. This course persuaded me how all the sentient beings should be treated. Now it the veterinarians, the key

responsible persons for protecting the health of animals are incomplete without the proper just seems to me that we, knowledge of animal welfare. I hope we can apply the knowledge of this subject to build a more humane, safe and kinder world for the voiceless creatures of Almighty. Thanks to Dept. of Physiology, Biochemistry & Pharmacology and especially to Dr Mohammad Rashedul Alam sir for introducing and teaching this course—wholeheartedly—in our DVM curriculum at CVASU.

# ANIMAL WELFARE TALKS IN THE NATIONAL AND INTERNATIONAL CONFERENCE

A significant number of animal welfare talks were delivered in various scientific conferences of Bangladesh since the issues of animal welfare were first studied and identified from CVASU. The targeted participants were a good number of field veterinarians, researchers, policymakers, stakeholders, and faculties from other veterinary schools. The program was meant to send this new message to those targeted groups, particularly how to upgrade the field veterinarians and to have this subject incorporated into the veterinary curriculum. Some of the talks with their major findings are highlighted in this brochure.





Delivering talks on animal welfare at the International Scientific Conference of CVASU. [13][14]

In addition, CVASU faculty has got the opportunity to attend a significant number of conferences on animal welfare in various countries since the inception of animal welfare started in Bangladesh. It helped to share current knowledge on animal welfare in Bangladesh with those in the scientific community from other countries.





Delivering talks on animal welfare at the Overseas Conference (Cairo, Egypt 2007 and Hong Kong 2018). [15] [16]

Moreover, all those conferences were a great opportunity to observe the findings of other scientists that helped to improve the research career in modern animal welfare science. It was also led to future collaborations with animal welfare scientists across the world. All these opportunities were a great opportunity to establish a better avenue of knowledge sharing which in turn will be used for the betterment of the animal in Bangladesh.

### ANIMAL WELFARE WORKSHOP PARTICIPATION

CVASU faculty has got the opportunity to attend a significant number of workshops on animal welfare in various countries since the inception of animal welfare started in Bangladesh. The knowledge obtained from these workshops helped not only to

develop research standards in animal welfare but also to teach the veterinary students an updated module on various aspects of animal behavior and welfare. The workshop outcome greatly enriched the research career in behavioral and animal welfare science that can provide public service to the community. The bulletin has highlighted the findings the outcomes of some of these workshops. The first national workshop on 'Concepts in Animal Welfare' was held in Bangalore in 2005, where faculties of all veterinary schools in India and Dr. Alam from CGVC were attended. Dr. Alam personally communicated with Dr. S Rahman with his expression of interest to participate in the workshop. In that workshop, the syllabus of animal welfare, produced by the World Society for the Protection of Animals and the University of Bristol, was introduced among the faculties. The participants were sensitized on how to introduce the animal welfare course into the veterinary curricula in this subcontinent.



Dr. Alam was presenting at the workshop in Bangalore, India 2008. [17]

A workshop on animal behavior was held in the wonderful historical city of Bergen, Norway on August 5, 2019, organized by the International Society for Applied Ethology (ISAE). The worldleading animal behavioral scientists have facilitated the workshop. Prof Cathy Dwyer from the UK, Dr. Jeremy Merchant Forde from USDA, USA, and Prof Dan Weaver from Canada was the focal person to conduct that workshop in the Radisson Blu Royal Hotel at the Bergen city of Norway. The main participants of the workshop were from developing countries who awarded developing countries congress attendance fund. The workshop focused on farm animal behavior mainly ethogram measurements of farm animals, sampling strategy and assessment, and their expected outcome was thoroughly discussed. In the workshop, delegates were divided into small groups to deal with specific

topics on behavior for group discussion, and feedback was taken by the facilitator.

The ISAE delegates visited the Salmon industry at the Bergen city of Norway, August 2019 as part of the workshop.<sup>[18]</sup>

Another workshop on research in animal welfare was held in the Science city of Bangalore, India on March 3, 2019, organized by the Commonwealth Veterinary Association (CVA). This workshop was conducted by Dr. S Abdul Rahman, ex-president of CVA. He invited most of the leading animal welfare experts across the globe to get suggestions and guidance concerning animal welfare. The animal welfare leaders were presented their specific topic and stressed on function and roles of the Animal Welfare Centre (AWC) that would establish in Bangalore. Animal welfare experts asked the audience to identify the priority of research on animal welfare issues first in this Indian subcontinent and then do the research accordingly. They were also recommended to collaborate with the surrounding countries of India and to develop animal welfare standards through AWC. Mechanisms for disseminating information, developing a sustainable partnership model, receive online information from AWC to other centers of India and its neighboring countries were also discussed.



Dr. Alam as panel discussant and with delegates of the PCVC7 conference and workshop at the science city of Bangalore, India, 2019. [19] [20]

### OIE ANIMAL WELFARE APPRECIATION

The World Organization for Animal Health (OIE) and Department of Livestock Development (DLD), Thailand organized the "Improved Animal Welfare Program" (IAWP) aims to improve understanding of OIE animal welfare standards and ease their implementation in Member Countries. The workshop emphasized the importance of OIE animal welfare standards on animal transport and slaughter, as well as the necessity for the training of veterinarians operating in the modern animal slaughtering industry. The program mainly focused on the training of trainers (TOT) on cattle welfare during transport and slaughter. The first session was the technical session where a wide range of topics was covered. The second session was the training and learning session where the trainees delivered their presentations and were critically evaluated by the course trainer and other group members. The OIE awarded Dr. Alam with a precious study scholarship that allowed him to attend this invaluable training





A glimpse of OIE participants (Training of Trainers) under "Improved Animal Welfare Program" (IAWP) at Kasetsart University, Bangkok, Thailand, 2014. [21][22]

The lectures covered a wide range of topics including an introduction to animal welfare programs, welfare assessment of cattle behavior

(instinctive, learned, and sensory modalities), concepts of stress and distress, handling principles, and the use of animal behavior in handling. Comprehensive lectures on the transport of animals by land, arrival at the slaughterhouses, lairage and design of lairage, restraint of cattle prior to stunning, bleeding after stunning, slaughter without stunning and animal welfare and meat quality were other key topics of this workshop delivered by the course trainer. Concerning transport issue, the handling of animals during journeys and the proper maximum interval for various animals was nice to learn. Factors producing stress during handling and transport were the key points and were presented very clearly. Practical sessions on handlings of cattle in feedlots, lairage, stunning and non-stunning slaughtering operations were the main activity of this training workshop. A wide number of video clips covered each topic in a very coherent manner. In the group discussion, the delegates were divided into small groups to deal with specific topics. After thoughtful discussions, the group leader delivered a presentation followed by questions and further fruitful discussions. This was one of the highlights of this training workshop.

In the second IAWP training, each participant developed their training material on a particular topic and presented it in the second session. The presentations were recorded as a video and evaluated. The video was analyzed for pros and cons for further skill developments for the second round. The course trainer and participants actively took part in video analysis. The course trainer tactfully took feedback from every participant on each video presentation.



Dr. Alam was presenting his talk at IWAP training session at Pattaya, Thailand, 2014. [23]

Dr. Alam received the best training award of IAWP training (Certificate of Attendance) in Bangkok. The course has expanded the knowledge and understanding of the animal welfare science of

cattle transport and slaughter. It has a tremendous impact both on teaching veterinary students and helping in with research and outreach work.

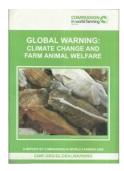




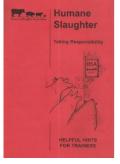
Dr. Alam was receiving the "Certificate of Proficiency" at IAWP training organized by OIE. [24] [25]

#### ANIMAL WELFARE RESOURCES

Since 2006 CVASU collaborated with many animal welfare scientists, animal welfare organizations, and animal welfare scientific bodies across the world. There are a lot of dedicated animal welfare organizations in the world working effectively to address the animal welfare agenda. It is worth noting that CVASU has already built up good relationships with some of these animal welfare organizations such as the World Animal Protection (WAP), Compassion in World Farming (CIWF), the Human Slaughter Association (HSA), the Humane Society of the United States (HSUS), Animal People, and the Middle East Network for Animal Welfare (MENAW). We are receiving continuous support from these organizations to address animal welfare in Bangladesh. As part of the interactions with WAP, a DART (Disaster Assessment and Response Team) team helped rescue and care for animals impacted by the severely flooded areas of Bangladesh in 2007.









Moreover, CVASU is proud to recognize the wonderful interactions with some world leaders on animal welfare such as Prof. Dr. S. Abdul Rahman, Prof. Joe M. Regenstein, Prof. Donald M Broom, Prof. Neville Gregory, Prof. Temple Grandin, Prof Cathy Dwyer, Prof Dr. Rebecca Doyle, and Dr. Jim Edwards. These important communications with these scientists are supporting and encouraging the CVASU faculty to keep up their good work on animal welfare.



(India)





Prof. Neville Gregory (UK)



Prof. Joe Mc Regenstein (US)



(UK)

Prof. Ayona Silva Fletcher (UK)



Prof. Rebecca Doyle (Australia)

The Universities Federation for Animal Welfare (UFAW) is subscribing the wonderful journal of Animal Welfare to CVASU regularly. It is a great resource that is helping to develop the research methodology about Bangladesh perspectives and finding the solution for better welfare of animals. The WAP and UFAW generously donated invaluable

books on animal welfare that are helping to teach undergraduate and postgraduate veterinary students at CVASU.



# ANIMAL WELFARE OUTREACH SERVICE

CVASU is a torch-bearer of public service on animal health and animal production at Chattogram and beyond. In that connection, this university is also providing continuous outreach services on animal welfare for the relevant professional people in society. The aim is to develop the concept of animal welfare and its improvement in every aspect of the livestock production system. As the expert faculty of CVASU on animal welfare, Dr. Alam has been being delivering lectures for community livestock workers, dairy and poultry entrepreneurs, and other relevant professionals for maintaining animal welfare standards for better health and production population. Lecture on welfare and food safety issues during transport and pre slaughter handling of animals at live bird market and slaughters houses

were also delivered. Most of these lectures were facilitated by the PRTC in the stakeholders' training programs for many years.





Dr. Alam was delivering lectures on animal welfare for community livestock workers, dairy and poultry entrepreneurs organized by PRTC, CVASU. [26][27]

Dr. Alam has also presented his research findings and important key messages among the students, international delegates, and journalists in the World Veterinary Day, 2014, and National DVM Intern Research Conference in 2016



Key note presentation on animal welfare at the World Veterinary Day, organized by Dean, FVM, CVASU, 2014. [28]



Key note presentation on animal welfare at 2nd DVM National Intern Research Conference, CVASU 2016. [29]

However, to enlighten and sensitize human behavior in favor of animals is necessary for establishing animal welfare. For that purpose, many popular articles on various aspects of animal welfare, written by him and published these articles in both local and national newspapers focusing especially on dairy cattle welfare and the welfare of freeroaming dogs. These writings in the mass media are targeted to general, technical, and professional people to develop awareness regarding animal welfare, sensible animal handling, and prevention of animal abuse in society.



Popular articles on animal welfare in print media. [30]

Dr. Alam has taken a more executionary and time-demanding project in CVASU on stray dog population control in humane way. In case of companion animals especially for stray dogs, the neutering program has been continuing in the CVASU campus and its surrounding area to control them and their better welfare. The dogs of the CVASU campus premise which were creating a public nuisance and a potential source of zoonotic disease have become friendly, docile, and resource of this university.

Dr. Alam has also presented his research findings and important key messages among the students, international delegates, and journalists in the World Veterinary Day, 2014, and National DVM Intern Research Conference in 2016.



Feeling connected to society and indebted to the country, Dr. Alam has self obligation to continue this outreach work for the betterment of the animals.



Delivering the concept of stray dog control by mass neutering at a policy meeting of Chattogram City Corporation. [31]

#### **CONCLUDING REMARKS**

This is the first bulletin on animal welfare in Bangladesh published from CVASU. Efforts are given in compiling the information related to animal welfare which is published in this bulletin. It will continue to publish on various topics. Hope that the information in this bulletin will be helpful to the veterinary professional in developing a basic understanding of animal welfare science!



#### DR. MOHAMMAD RASHEDUL ALAM

DVM, MS (BAU), PGT (UK, Thailand, India, Norway), Ph.D. (Japan), JASSO Fellow (Japan), Postdoc (Australia) Professor of Physiology and Animal Welfare

Mohammad Rashedul Alam was born in the district of Chattogram in Bangladesh on December 6, 1974. He was raised in the countryside of Rajanagar, Rangunia which was an important agricultural area of Chattogram. Being a country child, his early life was full of experiences with domestic animals like cattle especially the Red Chittagong and native chickens on his parents' small-holding; common in the traditional villages of Chattogram.

On leaving high school (Uttar Rangunia High School; SSC, 1990), he attended Rangunia College and passed HSC in 1992. He then moved to the Bangladesh Agricultural University and achieved the Doctor of Veterinary Medicine (DVM) in 1999 and completed his Masters in Physiology in 2001. Later, he earned postgraduate qualifications in animal welfare science from Cambridge University (2006) and the Royal Veterinary College, University of London (2008 and 2009), UK. He then awarded his Ph.D. in Nutritional Biochemistry from the Tokyo University of Agriculture and Technology, Japan. He was a JASSO fellow at Utsunomiya University, Japan. He obtained an Endeavour Postdoctoral fellowship from the University of Melbourne, Australia. He joined the Chattogram Veterinary and Animal Sciences University (CVASU) as a Lecturer in 2001, and after being promoted through senior positions, he currently holds the position of Professor.

Dr. Alam has had some important professional achievements during his academic career. He is the first veterinarian to introduce the concept of animal welfare at the professional level in Bangladesh. In early 2006, animal welfare received official encouragement following his presentation at the 4th Annual Scientific Conference of CVASU with the topic "Animal Welfare: An Introduction for Bangladesh". Since then he has been advocating to improve the animal welfare situation in Bangladesh. Dr. Alam has developed his expertise in research and training on modern animal welfare science by attending training, workshops, and conferences and participating in joint research programs in different countries (The UK, Thailand, India, Japan, Nepal, Egypt, Norway, and Australia). He has received several prestigious national and international positions and awards during his academic career. Dr. Alam has spoken extensively on animal welfare at national and international conferences. He has a strong commitment to improving animal welfare in Bangladesh through teaching, outreach, and research.

All enquiries concerning animal welfare bulletin should be directed to:

The Editor
Animal Welfare Bulletin
Department of Physiology, Biochemistry and
Pharmacology
Faculty of Veterinary Medicine
CVASU
Zakir Hossain Road, Khulshi - 4225, Chattogram
BANGLADESH

Editor: Prof. Dr. Mohammad Rashedul Alam

Email: rashed@cvasu.ac.bd Cell: +88 01819 336142

#### **Editorial Panel**

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