



## **MESSAGE**

**Dr. A. M. Parakhia**

*Director of Extension Education*

I am indeed delighted to note that we are hosting an ASCAD training in the Department of Veterinary Public Health & Epidemiology of College of Veterinary & A.H , Junagadh Agricultural University, Junagadh in collaboration with the Department of Animal Husbandry, Gujarat State on" Role of Veterinarians in Disaster Management and Control of Emerging Zoonoses ". I am pleased to host this training course and am confident that it will fetch significantly towards the common goal of a healthy world through its tri-junctional interface between humans, animals and the environment.

At the outset, I would like to underline and reiterate the fact that a healthy nation could only be built by the healthy individuals and the animals and the surrounding environment. I strongly believe and affirm that the health could only be attained by way of collaborative and co-operative works. The world is facing certain crises which will result in serious health issues like, infectious diseases, emerging disease, disaster, security and pollution of the natural resources. A concerted action on priority basis shall be undertaken to safeguard the element of life on the planet earth.

This concise book comprised of several topics covering aspects of disaster management and control of emerging zoonoses. It will be a useful document and guided for further reference to the field veterinarians. I congratulate the course director Dr. P.H.Tank, Course Coordinator Dr. S.H. Sindhi and his team for taking such initiative and preparing an important resource book. I extend my best wishes for the grand success and fruitful outcomes from this training.

**Dr. A. M. Parakhia**

Director of Extension Education  
Junagadh Agricultural University, Junagadh



## **Foreword**

**Dr. P.H. Tank**  
*Principal & Dean*

The diseases and infections that are naturally transmissible between vertebrate animals and humans are collectively referred to as zoonoses. With nearly two-thirds of the human infections recognized as zoonoses, veterinarians have a vital role in protecting human health. Most Indian rural households stay in close contact with animals, increasing the risk of zoonotic disease transmission. Although, the exact burden of food borne diseases is unavailable, sporadic attempts have been made to document outbreaks. Unfortunately, the unreported cases far out number the reported ones with major losses in terms of lost man hours and treatment costs, a prominent factor that pushes forth the issue of food safety. Nearly 30 million people are affected by disaster every year. The loss in term of human and livestock lives as well as the community and public assets is enormous. There have been attempts to address different kinds of natural and man-made disasters at different times. Introduction of these aspects to the field veterinarians will equip them better to deal with natural disasters and animal epidemics.

In this direction, the ASCAD training course on “Role of Veterinarians in Disaster Management and Control of Emerging Zoonoses” is organized by the College of Veterinary Science and Animal Husbandry, Junagadh Agricultural University, Junagadh with the aim of updating the knowledge of the field veterinarians on disaster management and control of emerging zoonoses is the need of time.

I congratulate Dr. S.H. Sindhi, Course Coordinator and his team for taking this initiative and compiling the training manual which covers a range of topics covering various aspects on disaster management and control of emerging zoonoses.

I hope that this training course will be of immense help in improving the knowledge and skills of trainees who have participates in the training.

I wish this training programme to be successful and rewarding to all concerned.

**(P.H. Tank)**  
**Course Director**



## Preface

**Dr. S. H. Sindhi**  
Course Coordinator

The world is a 'global village' owing to reduced travel time and advances in communication. The increased tourism and trade have also contributed to the rapid spread of diseases. The emerging and re-emerging zoonotic and food borne diseases have a major socioeconomic and public health impact. In recent years disasters have assumed serious dimensions as they pose a greater threat to health, environment and national security. A wide spectrum of pandemics have engulfed our nation previously and continue to do so affecting both human and animal health. These situations pose new challenges to the skills and capacities of the veterinarian. The training course on "Role of Veterinarians in Disaster Management and Control of Emerging Zoonoses" includes variety of information on the major zoonotic disease including foodborne diseases and their control measures. Further, the course covers various topics related to disaster management. The compendium has been meticulously compiled by the staff of the department which I hope, will be a useful document and guide for further reference to the field veterinarians.

I take this opportunity to extend my sincere thanks to Dr. A. R. Pathak, Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh. I extend my heartfelt thanks to Dr. Hitaben Patel, Director, Department of Animal Husbandry, Government of Gujarat. I am highly thankful to Dr. P. H. Tank, Principal and Dean, College of Veterinary Science and Animal Husbandry, JAU, Junagadh for the unabated support and encouragement in conducting this training. I also thank Dr. K. S. Murthy, Professor and Head, Department of Animal Nutrition, College of Veterinary Science and Animal Husbandry, JAU for his valuable suggestions and guidelines in planning the training course. I acknowledge the all round efforts of Dr. J.B. Kathiriya and Dr. Kirit R. Bhedi, Asst. Prof., Dept. of VPE. I also thank all my colleagues in the College who have contributed immensely in the formation of this manual by providing their valuable chapters.

*S.H. Sindhi*

**(S. H. Sindhi)**