

# Zoonoses and Food Hygiene News

Vol. 21 No. 4 October to December 2015

ISSN: 2091-0932 (Print), 2091-0940 (Online)

Government of Nepal, Registration Number: 148/049/050

## **Late Dr. Durga Datt Joshi, Founder of NZFHRC**

### **Editor-in-Chief**

**Dr. Padam Raj Bista**

### **Managing Editor**

**Dr. Billy R. Heron, USA.**

### **Editorial Panel**

**Prof. Dr. P.N. Mishra**

**Dr. Mahendra Maharjan**

**Ms. Minu Sharma**

**Dr. Bikash Bhattarai**

**Ms. MeenaDahal**

**Mr. Dhan Kumar Pant**

**Email:** [ddjoshi.nzfhrc17@gmail.com](mailto:ddjoshi.nzfhrc17@gmail.com), [ddjoshi@healthnet.org.np](mailto:ddjoshi@healthnet.org.np)

**Website:** [www.nzfhrc.org.np](http://www.nzfhrc.org.np)

*Zoonoses and Food Hygiene News, published four times a year, provides a medium for disseminating technical information on matters related to zoonoses and food hygiene generated in the world, particularly in Nepal. The editors welcome submissions on these topics with appropriate illustrations and references. The views and opinions expressed in the News are those of the authors.*

## **CONTENTS:**

- **2nd National Symposium on Priority Zoonoses in Nepal: Rabies**

### **NEWS**

#### **2nd National Symposium on Priority Zoonoses in Nepal: Rabies**

According to the objective of NZFHRC to conduct interaction workshops with healthcare related organizations on surveillance and control strategies focused on zoonotic diseases, NZFHRC has been periodically organizing several meetings and workshops. We recently organized the "First National Symposium on Priority Zoonoses in Nepal" in memory of our founder late Dr. D. D. Joshi, in collaboration with World Health Organization Country Office for Nepal, Epidemiology and Disease Control Division (EDCD), DHS/MoHP and One Health Alliance Nepal (OHAN). Symposium venue was Hotel Yak and Yeti, Durbar Marg, Kathmandu, Nepal from 14 – 15 December, 2014.

The 2<sup>nd</sup> National Symposium on Priority Zoonoses in Nepal: Rabies", was organized in Hotel Radisson, Lazimpat, Kathmandu, Nepal on 30<sup>th</sup> November, 2015.. It was jointly organized by NZFHRC, KDMA Research Trust and DDJ Research Foundation, Chagal, Kathmandu.

### **Objective and Agenda of Symposium:**

The main objective of this symposium was to share scientific information among stakeholders and to draft an action plan for prevention and control of rabies in Nepal

### **Participants:**

Stakeholders of One Health concept were invited in this symposium. A total of 65 participants representing animal health, human health and wildlife health, media, and other sectors participated in the symposium.

### **Scientists and subject matter specialists:**

Scientists and subject matter specialists belonging to governmental, nongovernmental, and private sector organizations conducting research and/or services in animal, human and wildlife health, were

invited by NZFHRC to present technical papers relevant to the One Health approach with emphasis on prevention and control of rabies in Nepal.

### **Organization of Symposium:**

### **Registration of Participants:**

The registration of participants was carried out by the staffs of NZFHRC at 08.30-9.00 am on 30th November 2015

### **The Program of Symposium:**

The one day symposium comprised of inaugural session, technical session and closing session. After the inaugural session, scientists and subject matter specialists presented nine working papers followed by open floor discussion among the participants. Ms. Rosy Chaulagain, NZFHRC performed the responsibility of Master of Ceremony of the symposium.

### **Rapporteurs:**

Dr. Narayan Prasad Ghimire, Registrar of Nepal Veterinary Council (NVC); Dr. Sujan Rana, Senior Veterinary Officer at Department of Livestock Services (DLS); Dr. Ujjwal Bhattarai, Medical Officer at NZFHRC and Bipin Bista, Medical Officer at NZFHRC were the rapporteurs for the program.

### **The Inaugural Session:**

### **Chairperson, Chief Guest, Special Guests, Guests and Participants:**

The Inaugural Session of symposium began in the presence of following distinguished invited guests and delegates:

- Chairperson: Dr. Nar Bahadur Rajwar, Former-secretary, Office of the Nepal Trust, GoN, Darbarmarg, Kathmandu.
- Chief Guest, Dr. Keshav Prasad Premy, Director General, Department of Livestock Services, Hariharbawan, Pulchowk.
- Special Guest: Dr. Garib Das Thakur, Joint Secretary, Ministry of Health and Population, Kathmandu.
- Special Guest: Dr. Babu Ram Marasini, Director, Epidemiology and Disease Control Division (EDCD), Department of Health Services, Teku, Kathmandu.
- Dr. Sithar Dorjee, Coordinator for South Asia One Health Program International Development Group, Massey University, New Zealand.

The event was also attended by distinguished delegates representing various governmental, nongovernmental agencies and abroad involved in the research or services pertaining to the health of human, animal and wildlife with one health approach in the country and regions.

### **Welcome Speech by Ms. Minu Sharma:**

Ms. Minu Sharma, Programme Coordinator, NZFHRC delivered welcome speech highlighting the objective of the symposium.

### **Announcement of Awards:**

Ms. Minu Sharma announced the name of Dr. Manish Kakkar, Delhi, India who was selected for the special award established by NZFHRC. Dr. Kakkar was awarded for his outstanding research in priority zoonoses.

### **Inauguration of Symposium by Chief Guest Dr. Keshav Prasad Premy:**

Chief Guest, Dr. Keshav Prasad Premy, Director General, Department of Livestock Services inaugurated the symposium by lighting the ceremonial lamp.

### **Key Note Speech by Chief Guest Dr. Keshav Prasad Premy:**

Followed by deliberation of his inaugural speech, Dr. Premy expressed his heartfelt condolence to the departed soul of late Dr. Durga Datt Joshi and highlighted major contributions of Dr. Joshi in the development of veterinary services especially the veterinary public health in Nepal.

Dr. Premy briefly focused on the status and effects of rabies in human and animal at global, regional and national level. He presented a total of 210 animal deaths in 88 animal bite events during (FY 2014/2015). He urged the stakeholders to focus on the prevention and control of rabies at its origin (i.e. animal) rather than the management of post bite and pathetic rabies cases.

### **Key Note Speech by Special Guest Dr. Garib Das Thakur:**

**Dr. Garib Das Thakur**, Joint Secretary of Ministry of Population and Health expressed his heartfelt condolence and deep sorrow over the untimely demise of late Dr. D. D. Joshi. He wished eternal peace to the departed soul and condolence to the family members. Dr. Thakur remembered and highlighted some of the very important achievements including the establishment of One Health Alliance Nepal. Dr. Thakur highlighted on the efforts of late Dr. Joshi for integrating the government and private sector as well as the human and veterinary sector in order to integrate the research and extension with the concept of one health in the field of zoonoses and public health.

### **Key Note Speech by Special Guest Dr. Babu Ram Marasini:**

Dr. Babu Ram Marasini, Director of Epidemiology and Disease Control Division expressed his deep sorrow in the demise of late Dr. D. D. Joshi and paid his heartfelt condolence and peace to the departed soul. Dr. Marasini highlighted some of the very important contributions of late Dr. Joshi in the field of zoonoses with one health approach in Nepal. He also highlighted on the support of the Ministry of Health and Population in the production of rabies vaccine and strengthening of the rabies vaccine production laboratory, under the Directorate of Animal Health. He further pleaded that the rabies should be one of the area appropriate for research or activities towards its elimination by 2020. He expressed his commitment to support from his personnel and institutional capacity to make the concept of one health a reality in practice.

Dr. Marasini thanked NZFHRC for their contribution in the field of zoonoses, progressing in the direction of late Dr. D. D. Joshi and wished the success of this symposium,

### **Key Note Speech by Special Guest Dr. Sithar Dorjee:**

Dr. Sithar Dorjee, Coordinator for South Asia One Health Program International Development Group, Massey University, New Zealand delivered his very important remarks during this session. Dr. Dorjee thanked the organizer for providing him this opportunity of learning and sharing experiences in this symposium. Dr. Dorjee compared the situation of rabies in Nepal and Bhutan and presented Bhutan's progress with only one case of human rabies in 2014 and very few animal cases. He highlighted the Bhutanese progress with strong commitment of government through a policy strategy of eliminating rabies from country in with an approach coordinated across concerned stakeholders including nongovernmental organizations such as Humane Society International. Major activities included awareness, mass education, training, mass vaccination and dog population management. He shared that their experiences and policy developed for the control and containment of highly

pathogenic avian influenza was modified and developed an appropriate policy document for prevention, control and elimination of rabies within a stipulated time.

He concluded his remarks with expression of deep condolence to late Dr. Joshi and requesting all stakeholders to join hands together to materialize the concept of one health for effective prevention, control and elimination of zoonoses and especially the rabies.

### **Key Note Speech by Chairperson Dr. Nara Bahadur Rajwar:**

Dr. Nar Bahadur Rajwar, Former Secretary, Government of Nepal thanked the organizer for providing him an opportunity to chair the session. He prayed to the God for the eternal peace of the departed soul and expressed his sincere condolence to the members of bereaved family in the untimely demise of late Dr. D. D. Joshi. Dr. Rajwar highlighted on various contribution of late Dr. Joshi in the development of veterinary public health in Nepal while he was in the government service as well as in private sector. He highlighted various fields where Dr. Joshi contributed significantly including public health, zoonoses, yak and chauries, rinderpest eradication, wildlife, food hygiene, regulations, etc. Dr. Joshi was a constant inspirator for all concerned.

### **Technical Session I:**

The technical session was chaired by Dr. Nar Bahadur Rajwar, Former Secretary, The Office of the Nepal Trust Government of Nepal. Dr. Narayan Prasad Ghimire and Dr. Sujan Rana were as rapporteurs in this session.

A total seven papers were presented in this session. The discussion was held on each paper after a tea break. This session was completed in a given time frame.

### **Assessment of Knowledge, Attitude and Practice of Rabies among School Children of Kathmandu District, Nepal by Dr. Rakesh Chand, Veterinary Officer, NZFHRC, Kathmandu;**

Dr. Rakesh Chand presented the summarized activities of NZFHRC on prevention and control of rabies in Nepal. He presented the findings of a cross sectional KAP survey of rabies among school children of Kathmandu district.

### **National Policy for Controlling Human Rabies in Nepal by Dr. Babu Ram Marasini, Director, EDCD, Teku.**

Dr. Babu Ram Marasini presented national policy for controlling human rabies in Nepal. He showed that of the total animal bite (31,625) cases, dog bites (28,397) were predominant (89.79%) as compared to other animal bites (3,228), where total estimated human rabies cases were only 30 during the year 2014 in Nepal. He also described the generalized distribution of animal bite cases and actual human rabies cases throughout the country round the year. He also informed that there were human cases of rabies in tourists who contacted rabies from dog bite in Nepal and died in USA and Australia giving a very negative impact on Nepalese tourism. Very often the tourists were unaware of the prevalence of rabies among dog population, they were unnecessarily exposed to dog bite (sometimes roaming in midnight in city) and remained careless that led to fatal outcome.

### **Human Rabies in Nepal: A 14-year Experience from a Tertiary Referral Tropical Infectious Disease Hospital by Dr. Sher Bahadur Pun, Clinical Research Unit Head, Sukraraj Tropical and Infectious Disease Hospital, Teku, Kathmandu, Nepal**

Dr. Sher Bahadur Pun presented a paper entitled Human Rabies in Nepal: a 14-year Experience from a Tertiary Referral Tropical Infectious Disease Hospital. The paper, developed on the basis of the experiences and learning over a period of 14 years, included the trend of human rabies cases, its management, and challenges of rabies

control in Nepal. He described the category of dog bite cases and recommended post exposure vaccination schedule. He informed that there were reports of rabies cases throughout the year, from almost all parts of the country from several species of wild and domestic carnivores and especially from dogs. The number of postexposure prophylactic vaccination (PEPV) cases peaked during Falgun (Feb.-March) and least during Ashoj-Kartik (Sep.-Oct.). The PEPV cases were increasing significantly. During 2001-2011, PEPV cases increased by 6 times. Among the PEPV cases, 15% were children. Similarly, there was an increasing trend of using immunoglobulin.

Dr. Pun shared that there were situation where the quality of vaccine (cold chain maintenance) and vaccination in dog were doubtful. It required post exposure vaccination despite the dogs were vaccinated. The situation was very alarming and required a standard quality control mechanism on vaccine and a standard veterinary services for quality services.

**One Health Approach: HPAI Preparedness and Response Plan in Bhutan by Dr. Sithar Dorjee, Regional Coordinator for South Asia One Health Program International Development Group Massey University, New Zealand**

Dr. Sithar Dorjee presented a paper on HPAI Preparedness and Response Plan in Bhutan which was prepared jointly by Sithar Dorjee; Peter Jolly; Joanna S McKenzie, International Development Group, Massey University, New Zealand. He describe on the historical perspective of one health, the burden and socioeconomic impact of zoonoses and emerging and re-emerging diseases; and the necessity of one health approach for prevention and control of diseases and safeguarding of human, animal & environmental health.

He presented the HPAI operational module applied for the control and containment of highly pathogenic avian influenza in Bhutan and suggested to modify the module and develop appropriate policy strategy for the prevention and control of priority zoonoses including rabies in Nepal. The Bhutan model of preparedness for HPAI was found very much similar to that of Nepal. Dr. Dorjee also shared the one health strategic frame work of Bhutan which could be a reference for Nepal. He further informed about the one health fellowship program under Massey University to develop the human resources in this field.

**Rabies Control Strategy in Urban Area of Kathmandu District by Hari Kumar Shrestha Sr. Administrative Officer, Kathmandu Metropolitan City, Health Department.**

Mr. Hari Kumar Shrestha presented a paper entitled the Policy and Practice of KMC for Prevention and Control of Rabies. He showed that KMC was working together with some NGO and trying to impose restriction on the defecation of dog in public space. He showed the slogan as follows: काठमाडौं महानगरपालिकाले के गर्दैछ ? कुकुरले गर्ने दिशा नियन्त्रण गर्दैछ ?

Mr. Hari also informed that KMC, in coordination and support of non-governmental organizations including Humane Society International (HSI) and Animal Welfare Network Nepal (AWNN) is planning for the dog population management, rabies control and control of canine zoonotic parasites at Ward level with the active participation of concerned communities.

**Technical Session II:**

The second technical session was chaired by Prof. Dr. Shiba Kumar Rai, Nepal Medical College, Jorpati and Rapporteurs were Dr. Narayan Prasad Ghimire, Dr. Ujjwal Bhattarai and Bipin Bista, Following three papers were presented by Dr. Barun Sharma, Dr. Kamal Gairhe and Dr. Bolraj Acharya. The papers were discussed well in the plenary session. Prof. Rai as a Chairperson facilitated with important technical inputs. A summary of the presentation and discussion has been given below.

**One Health Approach to Update of Rabies in SAARC Region by Dr. Khadak Singh Bista, FAO**

Dr. Khadak Singh Bista presented paper comprising the conceptual and historical aspect together with the national and international movement on one health concept. He highlighted the necessity of epidemiological background for prevention and control of diseases with some pandemics and epidemics of recent past. He also presented the status of rabies in global, regional (SAARC) and national level.

**One Health Perspective in Rabies Control in Nepal by Dr. Barun Sharma, Post Graduate Fellow, Massey University, New Zealand**

Dr. Barun Sharma presented a paper highlighting the one health concept. Dr. Barun focused on the WHO-OIE-FAO agreement as the commitment for elimination of rabies at global level. In national contest he urged the stakeholders for an integrated step by step strategic approach focusing mainly on collaboration, legislation, surveillance, mass awareness and mass vaccination.

**Rabies Vaccine Production in Nepal and its Costing by Dr. Bol Raj Acharya, Chief, Rabies Vaccine Production Laboratory Tripureshwor, Kathmandu**

Dr. Bol Raj Acharya presented a paper highlighting the biology of rabies virus, its status in Nepal, methods of control, the historical development of rabies vaccine production and its trend, current status, opportunities and challenges in Nepal. He appreciated the contribution of health sector in the process of vaccine production especially for human purpose. Dr. Acharya also highlighted on the distribution system of rabies vaccine produced in Nepal.

**Sylvatic Rabies Control Strategy in Nepal by Dr. Kamal Prasad Gairhe, Senior Veterinary Officer, Chitwan National Park, Sauraha**

Dr. Kamal Prasad Gairhe shared his long experience on the status and challenges of wildlife health in Nepal through a technical paper. According to him, there was an urgent need to establish a functional relationship between the Ministry of Forestry and Ministry of Agriculture Development at least to share information, harmonize resources and technology; coordinated approach for surveillance, reporting, prevention and control of priority zoonoses in Nepal. He highlighted on the epidemiological aspect or rabies focusing on the possible existence of sylvatic and urban cycle of rabies, possible carrier wildlife, urgency of research or screening. He suggested that there was a greater need of coordinated approach of all stakeholders for safeguarding animal, human and environmental health. Dr. Gairhe further suggested priority action plan for implementation of one health approach in wildlife in Nepal.

**The Closing session**

**Chairperson and rapporteurs:**

The closing session was chaired by Prof. Dr. Ishwori Prasad Dhakal, Vice Chancellor, Agriculture and Forestry University, Chitwan, Nepal with the rapporteurs as mentioned earlier in the program.

**Presentation of Group Recommendation:**

The draft policy recommendation drafted earlier in consultation with Dr. Jitendra Man Shrestha was presented by Mr. Dhan Kumar Pant, Microbiologist, NZFHRC, and discussed in the plenary session. Some of the participants expressed their suggestion.

All of the participants were requested to send their suggestions and comments on the draft document by electronic means of communication as soon as possible. NZFHRC management, in consultation with relevant expertise, will finalize the recommendation for processing.

**Vote of thanks by Mr. Dhan K. Pant, Microbiologist, NZFHRC**

Mr. Dhan Kumar Pant presented vote of thanks to the Chief Guest, Special Guests, guests, participants, resource persons, rapporteurs, donors, media personnel and the hotel management for their significant contribution to make this event a grand success.



**Closing Remarks by Prof. Dr. Ishwori Prasad Dhakal, Vice Chancellor Agriculture and Forestry University (AFU)**

Prof. Dr. Ishwori Prasad Dhakal delivered his concluding remarks highlighting the international movement of one health concept and its importance in Nepal. He also expressed his personnel and institutional commitment to contribute significantly for the translation of the concept into practice. He informed that the AFU has recently finalized a syllabus graduate course for veterinary and medical education which will be processed to be incorporated in the syllabus of university. He also request the concerned councils (Nepal Medical Council and Nepal Veterinary Council) to harmonize and

approve the syllabus and enforce its implementation in the concerned educational institutions (colleges).

Finally, Dr. Dhakal congratulated Dr. Dorjee for his support at personnel and institutional level to materialize the one health concept into practice. He also thanked NZFHRC and all other concerned stakeholders for their support in this movement. Dr. Dhakal concluded the closing ceremony and the symposium with his closing remarks.

**Group Photo of 2nd National Symposium on Priority Zoonoses in Nepal: Rabies**



**NEWS:**

Dr. Rakesh Chand, a Veterinary Officer of NZFHRC, published the article entitled "Rabies Awareness in Kathmandu Valley, Nepal" on *Australian Veterinary Journal*, Vol. 93, No 11, N18 November 2015 issue.

**DDJ Research Award:**

*Please kindly submit your research work report on zoonotic diseases for consideration of DDJ Research award for the year 2016 by the end of March 2016 to NZFHRC office Chagal, G.P.O. Box 1885, Kathmandu, Nepal, Phone: 4270667, 4274928 and Fax 4272694. This award was established by DDJ Research Foundation in 2071 B.S. (2014) on the memory of Founder of this Foundation, Late, Dr.*

*D.D. Joshi. The award includes a grant of NCRs. 25,001/- (Rs. Twenty Five Thousand and One) with certificate.*

**K.D.M.A. Research Award:**

*Please kindly submit your research work paper on allergy award for the year 2015 for the consideration by the end of March 2016 to KDMART office Chagal, G.P.O. Box 1885, Kathmandu, Nepal, Phone: 4270667, 4274928 and Fax 4272694. This award was established by Late Dr. Durga Datt Joshi in 2049 B.S. (1992) on the memory of his wife, the late Mrs. Kaushilya Devi Joshi. The award includes a grant of NCRs. 15,001/- (Rs. Fifteen Thousand and One) with certificate.*

**From: Zoonoses & Food Hygiene News, NZFHRC  
P.O. Box 1885, Chagal, Kathmandu, Nepal.**

**TO:**

**Dr/Mr/Ms .....**

.....

.....