







ICAR-NIVEDI



Vol. 7, No. 1 January - June, 2017



Director's Desk

Greetings to all!

The dawn of New year is a new beginning and hope to achieve newer

heights in research, ICAR-NIVEDI magnificently continuing its research and development journey in epidemiology, informatics and impact of livestock diseases as well as by disseminating the developed technologies to stakeholders. Being the frontier institute for veterinary epidemiology in the country, faculty with positive attitude, the institute keeps its ever increasing momentum to conduct dynamic research to unravel the mysteries of science. It is indeed a great pleasure and privilege to notice the scientific handshake between South Asian Association for Regional Cooperation (SAARC), Food and Agriculture Organization (FAO) and ICAR-NIVEDI by conducting capacity building programmes on Field Epidemiology Training Programme for Veterinarians (FETPV) and Antimicrobial resistance (AMR) benefiting seventeen participants from six countries (Afghanistan, Bangladesh, Bhutan, India, Nepal and Sri Lanka). In order to strengthen the institute research projects in the upcoming years, the 11th IRC meeting was organized for scientific feedback. In addition to research contribution, institute also implemented Tribal Sub Plan Programme to uplift the tribal farmers in the country. The institute's participation in extension activities like Krishi Unnati Mela, Farmer's fair as well as Mera Gaon, Mera Gaurav is noteworthy in order to reach out farmers and other stakeholders to disseminate knowledge. Swacchta Pakhwada was organized in the institute as a part of Swacchh Bharat Abhiyan by cleaning the campus and laboratories. International Yoga day was celebrated in the institute in which all the staff members were enthusiastically participated.

Inauguration Ceremony



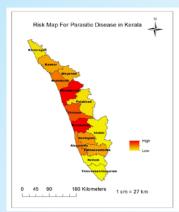


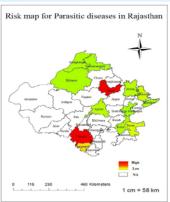


Hon'ble Dr. J. Jena, DDG (Animal Science) Acting inaugurated the "Field Epidemiology Training programme for Veterinarians (FETPV)" at ICAR-NIVEDI, sponsored by SAARC Agricultural Centre (SAC), Bangladesh and Food and Agriculture Organization (FAO)-Regional Support Unit (RSU), Nepal during 15-23rd May, 2017. The guests of honour were Dr. H. Rahman, Former DDG (AS) and ILRI Regional Representative for South Asia and Dr. Md. Nure Alam Siddiky, Senior Programme Officer, SAC, Dhaka. The DDG (AS) Acting had interaction with the Scientists of ICAR-NIVEDI and appreciated their research efforts. Dr. S.K. Bandyopadhyay, RSU Coordinator, FAO Dr. Khadak Singh Bisht, RSU Assistant Coordinator, FAO and Dr. A. Sanyal, Joint Director, IVRI were guests of honour for the valedictory function.

Research Achievements

Development of Climate-Parasitic disease relationship model





Incidence data on Parasitic diseases (Babesiosis, Coccidiosis, Fasciolosis, Filariosis, Schistosomosis, Strongyloidosis, Strongylosis, Theileriosis, Toxocariosis, Trichuriosis and Trypanosomosis) with 209 time events during 2001 to 2016 from Kerala was considered and linked to the environmental variables such as temperature, precipitation, wind speed, pressure, precipitable water and sea level pressure extracted from National Centres for Environmental Prediction (NCEP) and Remote sensing variables such as Normalised difference vegetation index (NDVI) and Land surface temperature (LST) using MODIS satellite images. Further, the data on both the incidence of parasitic disease and the set of environmental variables were subjected to Poisson regression modeling to establish the climate-disease relationship model which suggested that, NDVI and rainfall in lag month are positively associated with higher incidence and LST and temperature in lag month were negatively associated with the incidence of parasitic diseases. Henceforth, the study concludes that the environmental variables are very crucial for host pathogen interaction and parasitic disease prediction. This will help to implement timely control measures for parasitic diseases of livestock.

Poisson regression with log link model was used for developing a climate-parasitic disease relationship model with incidence of parasitic diseases (Trypanosomosis, Babesiosis, Strongylosis, Fasciolosis, Theileriosis, Coccidiosis, Toxocariosis and Trichuriosis) occurred in Rajasthan as dependent variable and LST, NDVI, Temperature and rainfall as predictors in the model. Model results indicated that NDVI, LST, Temperature and rainfall predicted the parasitic diseases significantly (P<0.001). This study suggested that more the vegetation cover in one month lag and less temperature were significantly associated with parasitic disease incidence. Hence, the study concludes that climate variables including remote sensing variables are very important in developing zone-wise disease risk maps, which will aid in the development of mitigation strategies for parasitic diseases.

Scientific Activities



Hon'ble Dr. Trilochan Mohapatra, Secretary, DARE & Director General, ICAR, Dr. J. Jena, DDG (AS) Acting reviewed the progress of research work being carried out by the Scientists of Animal Science Research Institutes located at Bengaluru, in the presence of Directors and Scientists at ICAR-NIANP, Bengaluru on 14th January, 2017.



11th Institute Research Committee (IRC) meeting of ICAR-NIVEDI was held on 12th January, 2017 under the Chairmanship of Dr. Parimal Roy, Director. The members of IRC were Dr. S. Yathiraj, OSD, Veterinary College, Gadag, Dr. R. Raghavan, Retd. Professor of Veterinary Microbiology, Dr. Lalith Achouth, Professor, Dairy Science College, Dr. G.R. Reddy, Principal Scientist, IVRI, Bengaluru. All the Scientists of ICAR-NIVEDI participated and presented their research achievements in the meeting.



Dr. Parimal Roy, Director, ICAR-NIVEDI inaugurated the workshop on 'Laboratory based Surveillance of Antimicrobial Resistance in human health and Veterinary sectors' organized by ICAR-NIVEDI in collaboration with FAO during 18-19th January, 2017. Dr. B.R. Shome, Principal Scientist, Dr. Rajeswari Shome, Principal Scientist, Dr. Sathish S.B, Principal Scientist, Dr. R. Sridevi, Scientist and Dr. M. Nagalingam, Scientist, ICAR-NIVEDI attended the workshop.

Dr. P. Krishnamoorthy, Scientist and Dr. M.M. Chanda, Scientist from ICAR-NIVEDI visited the AICRP on ADMAS centre, Disease Investigation Laboratory, Pune and had discussions with Dr. S.B. Tatwarthy, Joint Comissioner and Dr. Gowrishankar, Assistant Commissioner on the progress of the work on 20th January, 2017.



Dr. H. Rahman, DDG (AS), ICAR, New Delhi visited ICAR-NIVEDI and reviewed the progress of International Livestock Research Institute (ILRI) and Centres for Disease Control and Prevention (CDC) sponsored Research Projects on 10th February, 2017.



Smt. Esther Kar, Deputy Director General, Press Information Bureau, Ministry of Information and Broadcasting, Govt. of India and Dr. Rameshwar Singh, Project Director, DKMA, ICAR, New Delhi visited ICAR-NIVEDI, Bengaluru on 22nd February, 2017.



An ICMR and ICAR-NIVEDI interactive meeting was organized at ICAR-NIVEDI on 7th June, 2017 in the presence of Dr. Ashok Kumar, ADG(AH), ICAR, Dr. Manju Rahi, Scientist E and Dr. Ameeth Singh, Scientist C, ICMR and Scientists, ICAR-NIVEDI.

Important Events



68th Republic day was celebrated at ICAR-NIVEDI on 26th January, 2017 and Dr. Parimal Roy, Director addressed the staff members on this occasion.



ICAR-NIVEDI participated in the Regional Horticulture Fair organized at ICAR-IIHR, Bengaluru during 15-19th January, 2017 and exhibited institute research activities.



ICAR-NIVEDI celebrated the International Women's Day on 8th March, 2017.



Dr. G. Govindaraj, Senior Scientist, Dr. P. Krishnamoorthy, Scientist and Dr. Yogisharadaya, STO, ICAR-NIVEDI participated in the Krishi Unnati Mela organized at Indian Agricultural Research Institute, New Delhi during 15-17th February, 2017.

ICAR-NIVEDI January - June, 2017



ICAR-NIVEDI participated in the $13^{\rm th}$ Agricultural Science Congress held at GKVK, UAS, Bengaluru during $21\text{-}24^{\rm th}$ February, 2017 and exhibited the institute research activities.



Dr. S.S. Patil, Principal Scientist and Dr. J. Hiremath, Scientist exhibited the achievements of ICAR-NIVEDI in Farmer's Fair cum inauguration of FMD International Centre, Bhubaneswar, Odisha on 1st April, 2017.



Hindi Implementation Committee meeting of ICAR-NIVEDI was held under the Chairmanship of Dr. Parimal Roy, Director, ICAR-NIVEDI on 27th April, 2017.



ICAR-NIVEDI conducted 10th Institutional Animal Ethics Committee (IAEC) meeting on 14th June, 2017 under the Chairmanship of Dr. Parimal Roy, Director. Dr. R.K. Shakthi Devan, CPCSEA Main Nominee, Dr. Shiva Kumar, Scientist from outside the Institute and Dr. R.G. Prakash, Socially aware Nominee and other members from ICAR-NIVEDI attended the meeting.



External Audit for ISO 9000:2015 certification of ICAR-NIVEDI was conducted by IRClass Systems and Solutions Private Limited, Bengaluru on 17th June, 2017.



ICAR-NIVEDI celebrated the International Yoga day by organizing Yoga session by Dr.Prathik, Institute of Ayurveda and Integrative Medicine (I-IAM), Bengaluru to staff members on 21st June, 2017.

Swacchh Bharat Abhiyan





Swacchta Pakhwada was organized at ICAR-NIVEDI as part of Swacchh Bharat Abhiyan programme by cleaning the campus and laboratories during 16-31st May, 2017.

Tribal Sub Plan Programme



Dr. P. Krishnamoorthy, Scientist and Dr. A Sundaresan, Senior Research Officer & PI, AICRP on ADMAS, Tamilnadu centre interacted with tribal farmers at Gurumalai Village, Vellore district, Tamilnadu on 27th February, 2017 for identifying the possible tribal beneficiaries for implementation of Tribal Sub Plan Programme.



Dr. G. Govindaraj, Senior Scientist, Dr. P. Krishnamoorthy, Scientist and Dr. Yogishardhaya, STO distributed the Sheep to tribal farmers under the Tribal Sub Plan (TSP) programme at Challakere, Chitradurga on 30th March, 2017.



Dr. G. Govindaraj, Senior Scientist, Dr. P. Krishnamoorthy, Scientist and Dr.Yogishardhaya, STO conducted the Animal Health camp and distributed mineral mixtures to the tribal farmers on 11th May, 2017.

Mera Gaon, Mera Gaurav Programme



Dr. Sathish S.B, Principal Scientist, Dr. M. Nagalingam, Scientist and Dr. Siju S.J, Scientist, ICAR-NIVEDI organized

awareness programme to farmers at Veterinary Dispensary, Gantigenhalli, Bengaluru under MGMG programme on 5th May, 2017.



Dr. R. Sridevi, Scientist and Dr. A. Prajapati, STO distributed leaflet and pamphlets on 'Feeding schedule of dairy animals' and 'Rabies disease' to the farmers at Dodda Tumkur, Bengaluru on 15th May, 2017.



Dr. G. Govindaraj, Senior Scientist, Dr. P. Krishnamoorthy, Scientist and Dr. Yogisharadaya, STO conducted awareness camp on 'Feeding of dairy animals' and distributed mineral mixture to farmers at Kanaswadi, Bengaluru rural district on 26th May, 2017.

Livestock Disease Investigations/Field visits



Dr. S.S. Patil, Principal Scientist had discussions with the farmers regarding FMD vaccine effectiveness in Doddaryagadahalli, Doddaballapur on 15th February, 2017.



Dr. S.S. Patil, Principal Scientist visited Pork Market at Champhai, Mizoram and collected data on Classical Swine Fever on 3rd March, 2017.



Dr. D. Hemadri, Principal Scientist, Dr. Sathish, S.B, Principal Scientist, Dr. J. Hiremath, Scientist from ICAR-NIVEDI attended the disease outbreak investigation in a Pig farm at Sunkadakatte, Udupi district on 27th May, 2017.

Human Resource Development



Dr. P. Krishnamoorthy, Scientist and Dr. M.M. Chanda, Scientist participated in the Centres for Disease Control and Prevention (CDC), USA sponsored training on EpiInfo® Software organized by National Institute of Virology, Pune during 16-19th January, 2017.



Outreach Programme on Zoonotic Diseases sponsored training programme on 'Basic Veterinary Epidemiology and Economics of Animal diseases' was organized at ICAR-NIVEDI during 31st January - 4th February, 2017.



Dr. B.R. Shome, Principal Scientist participated in the FAO-ICAR meeting to identify research priorities in Veterinary Sector for AMR at ICAR-Central Institute for Fisheries Technology, Cochin held during 27-28th March, 2017.



Dr. K.P. Suresh, Principal Scientist, ICAR-NIVEDI in collaboration with ADMaC, Core Laboratory-I organized training programme on 'Sampling techniques and data analysis using GIS' at College of Veterinary Science, Guwahati, Assam during 2-4th March, 2017.

Awards and Recognition



Dr. Parimal Roy, Director, ICAR-NIVEDI received NAAS Recognition Award in the field of Animal Science from His Excellency Hon'ble Shri Vajubhai Vala, Governor, Government of Karnataka in the presence of Shri Krishna Byre Gowda, Minister of Agriculture, Government of Karnataka and Hon'ble Dr. T. Mohapatra, Secretary, DARE & Director General, ICAR in the XIII Agricultural Science Congress held at UAS, Bengaluru during 21-24th February, 2017.



Dr. V. Balamurugan, Principal Scientist, elected as Fellow of NAAS-2017 during Foundation Day Programme held at NASC complex, New Delhi, during 4-5th June 2017.

New Projects Sanctioned

- 1. CDC project on 'Countrywide surveillance for Anthrax in livestock and Mastitis in cattle for protecting and improving health Globally: Building and Strengthening Public Health Impact, System, Capacity' PI: Dr. B.R. Shome, Principal Scientist
- 2. DBT-NER Twinning Project on 'Molecular and serodiagnosis of surra in livestock in north eastern states of India' - PI: Dr. P.P. Sengupta, Principal Scientist
- 3. ICMR project on 'Development of recombinant antigen based diagnostics for bovine and human leptospirosis' PI: Dr. V. Balamurugan, Principal Scientist

Participation in Meetings/Seminars/ Symposia/Training

- 1. Dr. P.P. Sengupta, Principal Scientist attended National capacity building programme on 'Recent diagnostic tools for hydatidosis, cysticercosis and trichinellosis' held at Veterinary college, Mumbai during 5-7th January, 2017.
- Dr. P. Krishnamoorthy, Scientist and Dr. M.M. Chanda, Scientist attended Epi-Info training organized by CDC, USA at National Institute of Virology, Pune during 16-19th January, 2017.
- 3. Dr. B.R. Shome, Principal Scientist, Dr. R. Shome, Principal Scientist, Dr. K.P. Suresh, Principal Scientist, Dr. R. Sridevi, Scientist and Dr. M. Nagalingam, Scientist attended FAO sponsored workshop on 'Laboratory based surveillance of AMR in health and Veterinary sectors' held at Bangalore during 18-19th January, 2017.
- Dr. K. P. Suresh, Principal Scientist and Dr. P. Krishnamoorthy, Scientist attended Nodal Officers workshop on ICAR-KRISHI portal held during 24-25th January, 2017.
- Dr. P. Krishnamoorthy, Scientist and Dr. G.B. Manjunatha Reddy, Scientist participated in the workshop on J-GATE@CeRA held at Veterinary College, Bengaluru on 27th January, 2017.
- Dr. J. Hiremath, Scientist attended 'Global Health Security Agenda-Scientific writing workshop' held at Manipal University, Manipal during 30th January-2nd February, 2017.
- Dr. R. Sridevi, Scientist attended training on 'Basic veterinary epidemiology and economics of animal diseases' held at ICAR-NIVEDI during 31st January-4th February, 2017.
- Dr. G. Govindaraj, Senior Scientist and Dr. Yogisharadhya, STO attended National Symposium on 'Challenges in Animal health for higher productivity and income to farmers' held at Veterinary College, Nagpur during 10-12th February, 2017.
- 9. Dr. D. Hemadri, Principal Scientist attended meeting and short training on 'Development of diagnostic systems, reference collections and molecular epidemiology studies on important arboviral pathogens of livestock in India' held at Glasgow, UK during 13-18th February, 2017.
- 10. Dr. P. Krishnamoorthy, Scientist and Dr. M.M. Chanda, Scientist attended International symposium on 'Current concepts in diagnosis and control of parasitic diseases to combat climate changes' held at Veterinary College, Shimoga, Karnataka during 15-17th February, 2017.
- Dr. Yogisharadhya R, STO attended 'Competence enhancement programme for effective implementation of training functions by HRD Nodal officers of ICAR' held at ICAR-NAARM, Hyderabad during 16-18th February, 2017.
- Dr. K.P. Suresh, Principal Scientist and Dr. S.B. Shivachandra, Principal Scientist attended XIII Agricultural Science Congress-2017 held at GKVK

- campus, UAS, Bengaluru, Karnataka during 21-24th February, 2017.
- 13. Dr. R. Sridevi, Scientist and Dr. Siju S.J, Scientist attended CDC sponsored short course on "Orientation training course on zoonotic diseases of public health importance" held at ICAR-IVRI, Hebbal, Bengaluru, Karnataka during 7-10th March, 2017.
- Dr. G. Govindaraj, Senior Scientist, Dr. P. Krishnamoorthy, Scientist and Dr. Yogisharadhya R, STO attended Krishi Unnati Mela, 2017 held at ICAR-IARI, New Delhi during 15-17th March, 2017.
- Dr. S.B. Shivachandra, Principal Scientist attended 'CDC-ICAR Interactive Meeting' held at Krishi Bhawan, New Delhi on 16th March, 2017.
- Dr. G.B. Manjunatha Reddy, Scientist attended training on 'Bioinformatics for transcriptome sequencing' held at ICAR-IISR, Kozhikode, Kerala during 22-25th March, 2017
- 17. Dr. P. Krishnamoorthy, Scientist participated in the 'ICAR Geoportal Workshop for Experts' organized at NBSS&LUP, Nagpur on 27th March, 2017.
- Dr. S.S. Patil, Principal Scientist and Dr. J. Hiremath, Scientist attended Farmer's Fair cum inauguration of FMD International Centre at Bhubaneswar, Odisha on 1st April, 2017.
- 19. Dr. K.P. Suresh, Principal Scientist and Dr. G.B. Manjunatha Reddy, Scientist attended 'International Symposium on aquatic animal health and epidemiology for sustainable Asian aquaculture' held at ICAR-NBFGR, Lucknow during 20-21st April, 2017.
- Dr. P. P. Sengupta, Principal Scientist and Dr. Siju S.J, Scientist attended 27th National conference of Parasitology held at NIMHANS, Bengaluru during 25-27th April, 2017.
- Dr. P. Krishnamoorthy, Scientist participated in the Jackson Laboratory Seminar on 'Mouse colony Management' held at National Centre for Biological Sciences, Bengaluru on 30th May, 2017.

Trainings/Workshops organized

- International training programme on 'Field Epidemiology Training Programme for Veterinarians' was organized at ICAR-NIVEDI during 15-23rd May, 2015 under the aegis of SAARC Agriculture Center (SAC), Dhaka, Bangladesh and FAO Regional Support Unit, Kathmandu, Nepal.
- Sensitization training on Brucella-Control Programme (B-CP) was organized for field Veterinarians at Patna, Bihar on 11th January, 2017
- 3. ICAR-OPZD Capacity Building Programme on 'Basic Veterinary Epidemiology and Economics of Animal diseases' was organized at ICAR-NIVEDI during 31st January- 4th February, 2017.
- 4. Training programme on 'Sampling techniques and data analysis using GIS' was organized at AAU, Guwahati, Assam during 2-4th March, 2017 in collaboration with ADMaC, Core Laboratory-I, AAU, College of Veterinary Science, Guwahati.

Joining/Promotion/Transfer

- 1. Dr. K.P. Suresh, Senior Scientist promoted to Principal Scientist under CAS with effect from 30th April, 2014.
- 2. Dr. V. Balamurugan, Senior Scientist promoted to Principal Scientist under CAS with effect from 15th June, 2015.
- 3. Dr. S.S. Patil, Senior Scientist promoted to Principal Scientist under CAS with effect from 28th July, 2015.
- Dr. S.B. Shivachandra, Senior Scientist promoted to Principal Scientist under CAS with effect from 17th February, 2016.
- Mr. Jayaram Naik K.M, Administrative Officer joined ICAR-NIVEDI on transfer from ICAR- Central Plantation Crops Research Institute, Kasaragod on 15th May, 2017.
- 6. Mr. K. Vijaya Raj, Stenographer Grade III cleared probation on 3rd June, 2016.

Distinguished visitors

- Dr. J. Jena, DDG (Animal Sciences) Acting, ICAR, New Delhi
- 2. Dr. H. Rahman, Former DDG (AS) and ILRI Regional Representative for South Asia
- 3. Smt. Esther Kar, Director General, PIB, Government of India
- 4. Dr. Ashok Kumar, ADG (AH), ICAR, New Delhi
- 5. Dr. Johanna S. Salzer, CDC, Atlanta
- 6. Dr. Johanna Lindahl, ILRI, Nairobi, Kenya
- 7. Dr. Md. Nure Alam Siddiky, Senior Programme Officer, SAC, Bangladesh
- 8. Dr. S. K. Bandyopadhyay, Co-ordinator, FAO-RSU-SAARC, Nepal
- 9. Prof. Alan Jenkins, Centre for Ecology and Hydrology, UK
- 10. Dr. Khadak Singh Bisht, Asst. Coordinator, FAO-RSU-SAARC, Nepal
- 11. Dr. R.N.S Gowda, Former Vice Chancellor, KVAFSU, Bidar

- 12. Dr. N. Balakrishnan, Joint Director, ICMR-NCDC, Bengaluru
- 13. Dr. A. Sanyal, Joint Director, ICAR-IVRI, Bengaluru
- 14. Dr. Rameshwar Singh, Project Director, DKMA, New Delhi
- 15. Dr. R. Somavanshi, Emeritus Scientist, ICAR-IVRI, Izatnagar
- 16. Dr. T.V. Anilkumar, Scientist F & Head, SCIMS, Trivandrum
- 17. Dr. Manju Rahi, Scientist E, ICMR, New Delhi
- 18. Dr. Ameeth Singh, Scientist C, ICMR, New Delhi
- 19. Dr. Khalilullah Daqiq, Veterinary Officer, Afghanistan
- 20. Dr. Rahmatullah Almas, Veterinary Officer, Kabul, Afghanistan
- 21. Dr. Md. Ershaduzzaman, Principal Scientific Officer, BLRI, Bangladesh
- 22. Dr. Kazi Rafiquzzaman, Upazilla Livestock Officer, Bangladesh
- 23. Dr. Md. Zahir Uddin, Upazilla Livestock Officer, Bangladesh
- 24. Dr. S. M. Shariful Hoque, Veterinary Surgeon, District Veterinary Hospital, Bangladesh
- 25. Dr. Nima, Veterinary Officer, Department of Livestock, Bhutan
- 26. Dr. Pema Jatsho, Veterinary Officer, District Veterinary Hospital, Punakha, Bhutan
- 27. Dr. Amitav Chakraborty, Assistant Commissioner (Livestock Health), DADF
- 28. Dr. T. Sreenivas Reddy, Joint Director (Epidemiology), Government of Karnataka
- 29. Dr. Khagendra Raj Sapkota, Senior Livestock Development Officer, Nepal
- 30. Dr. Arjun Aryal, Veterinary Officer, Nepal
- 31. Dr. K.G.S.K. Senarathna, Veterinary Surgeon, Sri Lanka
- 32. Dr. B.D.K. Silva, Veterinary Surgeon, Sri Lanka
- 33. Dr. K.M.P.M.B. Kollalpitiya, Veterinary Surgeon, Sri Lanka

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