The Covid – 19 pandemic and One Health

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The ongoing COVID-19 pandemic, caused by SARS-CoV-2, a beta-coronavirus of zoonotic origin, has menacingly adapted to human-to-human transmission. We believed that “Today's challenges become tomorrow's strengths”. Unfortunately, the past year has taken us unawares on many counts and our strengths have become drained. The hope for the best of times has emerged as the worst of times, wisdom has lost its meaning. We believed that we have turned the pages of history but the renewed pandemic events have drawn us into despair and remorse and we have just come out of a crisis. The resurfaced Covid-19 pandemic, has spread its tentacles and has impacted whole civilization with morbidity and mortality.

Covid-19, caused by SARS CoV-2, has had substantial effects on the livestock sector. Animal health has been impacted by COVID-19 through the immediate consequences of sudden human confinement and inactivity, and through the long-term consequences of the upcoming economic crisis on farmer livelihoods and veterinary service capacities. The COVID-19 pandemic and the subsequent economic crisis has impacted negatively on the control of diseases that are already present in India and capacity to prevent and respond in a timely manner to new and emerging animal diseases.

The Animal Husbandry sector has been facing challenges. The farmers/livestock and poultry industry are losing economically due to this pandemic. They have lost their income

not only due to lockdown situation, there are shortage of labour and also lack of supply of inputs like chick/feed/fish seed, etc. It is difficult to provide treatment in veterinary hospitals / health centres due to restriction of movement. Basic technology for improving breed like artificial insemination has been disrupted. Considering these challenges, the scientists, technocrats, researches and the policy makers should formulate the way to come out of this grave situation. It should be kept in mind that animal husbandry is related with millions of rural families. To get maximum productivity from livestock, their health should be at optimum level of functioning. In India, about 69% of the population are landless or with marginal lands and depend on livestock for their livelihood. So the scientists in this field should evolve technique to get more production with minimum cost and the newer technology should easily be available in normal situation as well as to overcome pandemic like situation.

Health cover for animals is not only important for human health or treatment of the ailing animals but it means to increase in productivity from animals. Over recent years, agriculture is undergoing a transformation with livestock sustaining agriculture growth and proving to be the backbone of agriculture economy. The contributions from livestock to agriculture GDP, has increased substantially and is even 42 to 46 percent of agriculture GDP in some states. It is noteworthy that those states where the livestock contributions to agriculture economy are high, the poverty in such states is

minimum. Livestock sector has thus become the engine for poverty removal and also for nutritional security. In spite of this progress, there is endemic malnutrition and under nutrition of nursing mothers and new born due to protein shortage, which can be bridged only through the greater availability of milk and meat for the vulnerable population. ICMR recommends consuming 10.5 kilos of poultry meat and 180 eggs per annum when each person consumes just 3.5 kilos of meat and 30 eggs.

Genetically superior animals with good productivity and higher nutrient supplementation, is the developmental priority for the country. In the present pandemic situation, online monitoring of animal health and control of animal diseases is essential. Animal should be provided better health coverage, vaccine and proper disease control system. There is acute need to develop infrastructure, reproductive and molecular biotechnology for better production, disease diagnostic tools and appropriate long duration vaccines, re-orientation of veterinary education, etc. Study of zoonosis should be given due importance to fight the diseases like avian influenza, Covid-19, Nipa etc. It is high time to develop the modern vaccines like vector vaccine, mRNA vaccine, sub-unit vaccine etc. for emerging diseases.

In recent years, with the concept of ONE HEALTH, Zoonotic diseases and bio-safety have come under preview of professional veterinarians posing a great challenge to clinical

animal health delivery system. A robust disease surveillance, epidemiology, diagnosis, prophylactic control, modern infrastructure for clinical treatment and food hygiene are the facets of such delivery system and need to be integrated in a chain ensuring that no weak links are left in the chain. One Health is the term that refers to the collaboration of multiple disciplines, sectors and multiple groups working locally, nationally and globally to attain optimal health for people, animals and the environment.

There is limited information on how to institutionalize and operationalise One Health. Recent attempts, in India, to set up a system for operation of the program needs a policy and practice guide line. The policy is yet to be fully delineated and remains yet to be implemented across the nation: an evidence-based, interconnected system to address 'One Health' problems. The government of India has recently initiated a new national program of one health, which is multidisciplinary and goes to address the human, animal, plant and soil health in a holistic manner. The initiative includes setting up a dedicated Institute for One health at Nagpur.

Transboundary and emerging diseases are considered to hold the greatest economic threat to animals worldwide under the present disease environment. The Health Journal should address on making the veterinarian better prepared for prevention of transboundary infectious diseases in Indian livestock and poultry, and draw attention of professionals by bring together the strategies favoring their diagnosis, prevention and management.