Statement of Issue: Contagious Bovine Pleuro-Pneumonia (CBPP) is one of the most economically serious diseases of cattle in Uganda. It is a respiratory disease caused by a bacterium, and has been identified as the second most important trans-boundary disease in Africa after Rinderpest. It is also listed among the few notifiable bacterial diseases that must be reported to the World Organization for Animal Health (OIE). It causes high mortality rates and reduced productivity, leading to annual estimated losses of 3.7 million euros. Such financial losses incurred by livestock farmers threaten both their food security and livelihoods.

CBPP is a widespread trans-boundary cattle disease in the Sub-Saharan Africa. Transmission of CBPP is mainly through direct contact between diseased and healthy animals at water holes, dip tanks, markets and communal grazing areas. This leads to inhaling of contaminated aerosols and droplets from infected coughing cattle. Therefore, it is critical to understand the current situation so as to improve on the control and eradication strategies for this disease, hence providing the population with a stable food security.

Background: The first case of CBPP in Uganda was reported in 1956 in the Karamoja region. It remained concentrated in that region until the early 1990s when it spread to southern and central Uganda, with 84.2% of the samples at the National Animal Diagnostic Laboratory (Entebbe) testing positive in 1996.

The spread of the disease is mainly attributed to the extensive illegal movement of cattle within the country and from neighboring countries. This illegal movement is mainly due to search of better trade, pastures and water during droughts. Additionally, chronically infected and symptomless animals play an important role in the persistence and spread of the disease since they are difficult to detect.

Risk Factors associated with CBPP: Illegal movement of cattle is the highest risk factor for the spread of CBPP; movement of cattle from affected areas into new unaffected areas can lead to spread of the disease. For instance, between 1964 and 1966, CBPP outbreaks in Uganda were due to cattle introduced from Sudan, and most recently in 2006, the outbreaks in western Uganda were caused by cattle from Tanzania.

Contact with infected animals in livestock markets and communal grazing areas, where cattle from different places are collected in one place for trade and grazing respectively. These practices occur in both Eastern and Western Uganda where animals move from the neighboring CBPP-affected countries, e.g. Tanzania, Rwanda, South Sudan and Kenya. Infection may also occur when farmers move their cattle for mating to neighboring herds, since artificial insemination is still unpopular in these countries.

The ineffective vaccination programs and failure of the available vaccines to confer a long lasting immunity. This can be evidenced by the poor vaccination programs during years of political instability in the country, especially between 1970 and 1990. By 1995, new cases of the disease were reported in Southern Uganda, where it had not been reported before, from the endemic Karamoja region. This also helps to explain the highest CBPP prevalence in 1996.

CBPP control challenges have also been attributed to the reluctance of cattle owners to fully participate in the vaccination programs resulting in poor vaccine effects, and this is mainly due to post-vaccination effects to the cattle.

Existing Policies: The current policy advocated by Africa Union – Inter-African Bureau Animal Resources (AU-IBAR) for the control of CBPP includes; collection of epidemiological data and information to determine and detect affected communities, effective control of
animal movements from and towards these areas, mass vaccination of cattle regularly for at least five consecutive years, and repeat vaccination of the same cattle each year. However, control strategies that have been undertaken by the Ugandan government, including vaccination, to bring down the levels of new cases reported have not been well assessed or there is little published data showing the impact of these control measures on the trend of the disease.

**Policy Recommendations:** There is need for the government of Uganda to increase the Animal Ministry budget to help control animal diseases, including CBPP, through proper vaccination programs, animal identification systems and proper control of illegal movement of cattle into and within the country. Also, the introduction of molecular diagnostic techniques for CBPP, such as Polymerase chain reaction (PCR) and Loop Amplification method (LAMP), which can be applied in the field, will help in early detection of the disease. Additionally, since CBPP is a trans-boundary disease, there is need to strengthen regional control programs and surveillance systems. The development of a new vaccine with long lasting immunity and less post-vaccinal reactions would be essential, including; sensitization of cattle farmers about the benefits of vaccination of their animals, so that they fully participate in the CBPP control programs.

**Sources Consulted:**


Acknowledgement: We thank Jovia Musubika for technical help in preparing this policy brief. This policy brief is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the Africa-U.S. Integrated Disease Management Network (AFRUS-IDM) and do not necessarily reflect the views of USAID or the United States Government.

AFRUS-IDM Partners: North Dakota State University and Makerere University-Uganda (Lead Institutions), University of Nairobi-Kenya, Sokoine University of Agriculture-Tanzania, Mekelle University-Ethiopia, Umurara Poltecnic-Rwanda, Sheik Technical Veterinary School-Somalia, Africa Epidemiology Network (Non- Governmental Organization -NGO), Terra Nuova - Eastern Africa (NGO), and Conservation Through Public Health (NGO).