



PMAC | PRINCE MAHIDOL
AWARD CONFERENCE **2018**



PARALLEL SESSION 3.4

**SHIFTING LANDSCAPES - REAL AND FIGURATIVE: UNDERSTANDING HOW
ALTERED LAND USE IS DRIVING DISEASE EMERGENCE**



| BACKGROUND

From urban growth to natural resource extraction and agricultural intensification, anthropogenic land use change is leaving an indelible mark on the planet. Globally, from 2000 - 2012, net forest cover loss totaled 1.5 million square kilometers, 32% of which occurred in tropical rainforest ecosystems. This radical alteration in our natural environment is contributing to an acceleration in the pace and diversity of vector-borne and zoonotic disease emergence, as humans, their livestock, and wildlife are placed into increasingly greater contact. This session will provide a forum for exploration of the mechanics of land use change-associated zoonotic disease emergence and novel, practical solutions to address this challenge.

| OBJECTIVES

- Understanding the various pathways that are transforming landscapes—from agricultural intensification to extractive industries and infrastructure development—as economically driven
- Enhanced understanding of the mechanisms through which land use change enables infectious disease emergence and/or re-emergence, including inter-related factors of biodiversity and human population change dynamics
- Reviewing the data on how various land use scenarios—including fragmentation of wildlife habitats—are linked to both vector-borne and non-vector-borne zoonotic disease transmission dynamics
- Highlighting proven models for addressing land use-associated disease emergence



Speaker

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Project Coordinator

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I, Dr Ohnmar Aung, completed my Bachelor of Medicine & Science in 1994 at the Institute of Medicine 1, Yangon, after which I went on to pursue my Masters in Health Social Sciences at Mahidol University in Thailand from 2003 to 2005. During my 20 years as a medical doctor and public health specialist at Ministry of Health & Sports, international NGOs including the UNICEF and UNAIDS, I was given several opportunities to participate in short-term and long-term leadership and supervising workshops, such as “Coaching as Supervisor”. The skills I learnt from completing such workshops benefited me, especially in managing grants and funding amounting to 2 million per year for a number of respected international NGOs. Since 2003 when I was pursuing my Masters at Mahidol University, I have conducted several studies with the help of government ministries and a number of remarkable mentors I met throughout my career. For my Masters thesis, I conducted the “Youth Lifestyles, Sexuality and Cultural Beliefs related to Unsafe Sexual Practices among Selected Youth in Peri-urban Yangon, Myanmar” study, which investigated unsafe sexual practices across different youth populations in Yangon and the factors that might be influencing them. From 2008 to 2011, I assisted in conducting several studies which focused on the prevalence and prevention of HIV/AIDS in early infants, children, and the adult population. In 2013, I was given a special opportunity to co-conduct and co-author the “Opportunities and Challenges towards “Getting to Three Zeros” target: Lessons learned from Rapid Assessment of ASEAN Cities getting to Zero in Mawlamyine City, Myanmar” study. I am currently the Project Coordinator of the USAID/PREDICT project, Myanmar, by the Smithsonian Institution. With the co-operation of the Livestock Breeding and Veterinary Department and the Department of Medical Research, Myanmar, the PREDICT project is currently conducting research on the transmission of zoonotic diseases across human populations that are living near wildlife to assess the level of risk and spread of zoonotic diseases from animals to humans.