



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

Lilis Heri Mis Cicih

Senior Researcher, Lecturer

University of Indonesia
Indonesia

Dr. LILIS HERI MIS CICIH. Since 2017, Dr. Lilis is a senior researcher in Universitas Indonesia, and she also as a lecturer in Public Health Faculty and Economic and Business Faculty in Universitas Indonesia. Dr Lilis has worked extensively in INDOHUN (Indonesia One Health University Network), which is working as a Co-investigator of the DEAL (Disease Emergence and Economic Evaluation of Altered Landscape) project funded by USAID - a project that aims to prevent disease emergence in Indonesia with quantify how changes to landscapes, particularly forests, contribute to disease emergence, with particular emphasis on zoonotic disease threats. Also to estimate the economic costs of the human health effects due to deforestation and land use change. This translated from the USAID Infectious Disease Emergence and Economics of Altered Landscapes (IDEEAL) project with the focus interests of the Indonesian government and be specific for the Indonesian context. Dr. Lilis received her bachelor's degree (nutritionist) from Bogor Agricultural University, Bogor, Indonesia and worked as a demographic researcher before continuing studies at the Universitas Indonesia, where she earned a master's degree in economic demography in 1999. In 2015 she received her Doctoral Degree from the Public Health Faculty, Universitas Indonesia. Dr. Lilis has several background study are agricultural, economic, and public health