New Franco-Thai laboratory to investigate connections between biodiversity and human health

- Threats to biodiversity in Southeast Asia encourage the emergence there of zoonoses, infectious diseases that can spread from animals to humans.
- The CNRS has partnered with the Universities of Mahidol and Kasetsart in Thailand to create HealthDEEP, the second Franco-Thai laboratory involving the French research institute.
- The new laboratory seeks to inform policy in the areas of biodiversity, the environment, and human health by proposing ecosystem-based solutions.

The CNRS, Mahidol University, and Kasetsart University will formalize the creation of the Health, Disease Ecology, Environment, and Policy (HealthDEEP) research laboratory on 12 July, in Bangkok. The research to be conducted at the Franco-Thai laboratory will focus on biodiversity and its links with human health. It will serve as a centre not only for collaborative research but also for training and dialogue with policymakers.

Urbanization, globalization, climate disturbances, and intensive farming are among the many current threats to Southeast Asian biodiversity conducive to the emergence of zoonoses. It has been estimated that the latter, which include SARS-CoV-2, represent 75% of all emerging infectious human diseases.¹

To manage this threat to the environment and public health, the CNRS has teamed with the Universities of Mahidol and Kasetsart to found the HealthDEEP international research laboratory, to be based in Bangkok and Kanchanaburi, Thailand. Through this undertaking, France is strengthening its cooperation with countries of the Association of Southeast Asian Nations (ASEAN), participants in the One Health initiative.²

Acting as an observatory and centre for collaborative research projects, HealthDEEP will be a hub for investigations into the diversity of infectious agents, the ecology of transmission and conservation, and socioecosystemic approaches involving communities and local authorities. It thus aims to inform policy concerned with biodiversity, the environment, and human health, at the local and global scales, and to advance ecosystem-based solutions. HealthDEEP will also provide training for university students and young scientists from around the world.
Rice terrace in Chiang Rai province, Thailand. The research team investigates the transmission ecology of several zoonotic diseases associated with rodents in this landscape. © Chuanphot Thinphovong

Rice planting season in Nan province, Thailand. The rainy season is a high-risk period for the transmission of many infectious diseases, also affected by climate change and variability. © Serge Morand
Notes

2- The One Health concept emphasizes the interdependence of living organisms and their ecosystems as it promotes a global, multidisciplinary approach to human health issues.

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