Implementing a One Health/Ecohealth approach in Southeast Asia: Integration of health and agriculture issues in the socio-ecosystem's dynamics

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Global changes in Southeast Asia (such as increasing urbanization and population densities, intensification of trade and farming systems, drastic land use changes and biodiversity erosion) are affecting the drivers of health risks emergence. Therefore, building bridges among Health, Environment and Agriculture sectors is one of the main challenges that Southeast Asian countries have to face, in the framework of a "One health/Ecohealth" approach. It calls for a better integration between animal health and public health, social and environmental sciences, and agriculture (including livestock production) to address complex and emerging health issues. Managing these risks at the human/animal/environment interface aims at increasing resilience of the socioecosystems. Such an integrative approach implies methodological guidelines for cross-sectorial and interdisciplinary collaborations involving stakeholders from different horizons. Innovative strategies are needed to link policies and collective actions an enable knowledge sharing approaches at animal/human/environment interface.

We have iteratively developed such an integrative approach to address health impacts of waste (notably from pig farms) and water management at provincial and municipality levels in Thailand. Our case study, implemented in the framework of ComAcross EU project, was involving communities, local and provincial authorities as well as academics (from animal health, agronomy, ecology, modeling and social sciences). We will show how the use of participatory approaches (participatory epidemiology and companion modeling) for diseases prioritization and problems identification allowed us to address health issues in link with livelihoods (agriculture and livestock farming), involving local and national institutions. Our approach and methodology contributed to improve coordination between actors and sectors and could be suitable to address other health issues occurring at animal/human/environment interface.