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Grene Ecohealth - climate change, social change and human health

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Among various impacts of climate change, impacts on human health are felt directly by ourselves. While the description in the IPCC chapter emphasizes global aspect of the impact, actual human impacts will vary with the ecological and social settings of the locality/population of concern and show complicated nature. Thus, human population health will be dependent on physical/chemical environment, ecosystem health, and social environment. In addition, the ability of human population to build and/or choose such complex combination of environment exerts substantial effects on the health consequences of given change in physico-chemical environment.

In this presentation, several problems in connecting environmental information and health-related events, which should be affected by many factors as described above, will be discussed, and outline and achievement of the GRENEcoH project, a GRENE-Ecohealth project that is running under the GRENE-environmental information program, will be presented. In the GRENEcoH project, three sub-topics including (1) Health impact of heat and air pollution in urban area taking the daily commuting behavior of the inhabitants into consideration; (2) urban flood and the risk of infectious diseases in relation to the behavioral patterns of affected people; (3) climate change and infectious diseases associated with the land use (forest cover). Thus, each of the subtopics has some component of behavior (commuting, flood-behavior, or land use) that should modify/affect the final consequences of environmental events. All the subtopics focus on Asian developing areas, considering their importance in shaping global environment, their vulnerability to climate change, and their rapid change in the subsistence/life style. Each of these subtopics was chosen as global issues that are not global scale issues (like Climate Change) but rather local scale issues observed in many areas over the world. So far, the interim results suggest the importance of local factors in each of the sub-topics.

Keywords: temperature, air pollution, urban flood, land use, human health, infectious disease