Geophysical Research Abstracts
Vol. 20, EGU2018-17718-1, 2018
EGU General Assembly 2018


# Migration and adaptation under climate change in deltas

Attila Lazar (1), Helen Adams (2), Ricardo Safra De Campos (3), and Robert Nicholls (1)

(1) University of Southampton, Southampton, United Kingdom, (2) Kings College London, London, United Kingdom, (3) University of Exeter, Exeter, United Kingdom

Delta environments in low and mid-latitudes are important contributors to global food security and provide home for more than 500 million people worldwide. These regions are however under pressure from multiple drivers: climate and environmental change experienced through sea-level rise, soil salinization and erosion, etc. and socioeconomic factors such as high population density and, intensive land use. People's livelihoods and wellbeing are at stake when conditions deteriorate and hazards become more frequent. Widespread migration may be one consequence as people adapt, but migration can also occur for economic and social reasons. However, migration is just one of the adaptation options that an individual or household can utilise, thus the role of climate change on people's mobility is not straightforward to conclude.

The Deltas, Vulnerability & Climate Change: Migration & Adaptation (DECCMA) project analyses migration as part of the suite of adaptation options in three delta regions: the Ganges delta (Bangladesh/India), the Mahanadi delta (India) and the Volta delta (Ghana). One of its objectives is to develop an integrated assessment framework and model that assesses the impact of climate and environmental change, economics and governance on migration in these areas. This presentation introduces the migration and adaptation decision module of the DECCMA integrated framework. These components are based on a detailed household survey from delta migrant sending and receiving areas. In the presentation, we describe the survey results, and the developed model across the three study areas. In doing so, we illustrate some key causal relationships between changes in the environment, livelihoods and the migration decision. The outputs of the integrative modelling will be used to simulate, and thus evaluate, environmental, social and economic changes relevant forpolicy including the benefits and disadvantages of migration as an adaptation option.