4th TWINSEA International Workshop – Lessons Learnt and Outlook

"Enhancing Resilience in Indonesia and South East Asia Cities through Low Regret Adaption Measures"

30th March – 2nd April 2017, Bali, Indonesia.

From the 30th March until the 2nd April, Thomas Neise (PhD Student at the Working group "Economic Geography and Global South" of Professor Revilla Diez) and Fabio Pruß (Master student and former student assistant) participated in the 4th TWIN-SEA Workshop in Bali, Indonesia. The TWIN-SEA Project is jointly organized by a cooperation of the Indonesian Institute of Sciences (LIPI), the United Nations University – Institute of Environment and Human Security (UNU-EHS) as well as the Ludwig-Franzius-Institute of the University of Hanover. TWIN-SEA aims to build and develop an expert network and twinning institutes on climate and societal change in Southeast Asia and is funded by the German Ministry of Education and Research (BMBF) and the LIPI.



Thomas Neise presented the first results of his research ("Firm's contribution to Flood Risk Reduction: Scenario-based Experiments from Jakarta and Semarang"). As firms in the northern part of Jakarta and Semarang are highly affected by natural hazards (mostly floods), he analyzed whether and how small-

and medium-sized firms are willing to contribute to collective flood risk reduction measures. Especially the question whether companies contribute solely, in cooperation with other firms or in cooperation with the local government is important to analyse. Besides the local government and local communities, the private sector is a crucial partner to achieve resilience.

Fabio Pruß presented the results of his bachelor thesis ("Impact of Natural Hazards and Climate Change in Semarang, Indonesia – an Economic Damage Model"). He estimated the (direct) economic damage caused by land subsidence and rising sea levels for the years 2030 and 2050 in the Indonesian city of Semarang. Land subsidence rates of up to 15 cm/year occur in coastal cities in Southeast Asia which lead to an increase in frequency and intensity of flood events. The elevation of certain areas of the city are already near to the sea level or even below sea level and will continue to sink. Based on a GIS-analysis, the results show that the coastline might transgress up to 5 km into the hinterland, causing a direct economic damage of 850 Mio. US-\$ until 2050.

The agenda of the first two days of the conference were presentations and discussions, whereas in the following two days the attendants had the chance to participate in an excursion in Bali. The participants could see the work of the disaster management agency (BPBD) of the province Bali and learnt from their extraordinary preparedness system. The participants also visited mangroves forests and could see for themselves their importance for reducing coastal erosion and flood risk first. Lastly, they visited the Hard-Rock Hotel in Kuta that is the first certified tsunami-ready hotel. This hotel developed an evacuation plan for guests as well as staff and built emergency rooms in the upper floor of the hotel.

TWIN-SEA will continue through the research school as a spin-off. The research school enables Indonesian junior researcher to do their master or PhD at a German partner institution. We are glad that Mr. Abdul Fikri Angga Reksa from LIPI, who supported our field research in Indonesia, will start his master "Geography of Environmental Risks and Human Security" at the University of Bonn and UNU-EHS in October. The research school is funded by scholarships from DAAD (German Academic Exchange Service) and the Indonesian Ministry of Finance (LPDP). It supports the exchange of Indonesian and German students and the development of joint research projects. Moreover, it is possible to write thesis about Indonesia in cooperation with our partner LIPI. If you are interested, please contact the working group.