

## **Research for a sustainable future: Dr. Martin C. Lukas Receives CAMPUS AWARD**

**For the first time, the CAMPUS AWARD: Research for a Sustainable Future was handed over in Bremen on Wednesday, 26 April 2017. The prizewinner is Dr. Martin C. Lukas, who was awarded the prize for his doctoral thesis on the complex relationships between the causes and consequences of coastal land use in Indonesia.**

The CAMPUS AWARD honours outstanding doctoral and master's theses of scientists of the University of Bremen that focus thematically on the sustainable use of resources, the protection of the environment, the climate, and the oceans. The prize, endowed with 2,000 euros, is annually awarded by the KELLNER & STOLL FOUNDATION FOR CLIMATE AND ENVIRONMENT, the Leibniz Centre for Tropical Marine Research (ZMT) and the University of Bremen.

At the award ceremony at the ZMT attended by 100 guests, the jury honoured the geographer Dr. Martin C. Lukas from the artec | Research Centre for Sustainability Studies of the University of Bremen for his work on the complex causes of soil erosion and sedimentation in rivers and coastal ecosystems on Java – one of the key environmental problems of the Indonesian island and other tropical regions.

Hereby complex natural and man-made factors play a role, which have often not been sufficiently studied. In his doctoral thesis Martin C. Lukas investigated this problem using the example of the Segara Anakan Lagoon and its catchment area on the Indonesian island of Java. The Bremen scientist, speaking Javanese, exchanged ideas with the local population and the local political authorities about why measures against soil erosion and sedimentation had hitherto remained largely unsuccessful.

The study focused on a sensitive, rapidly changing human-environmental system with the largest remaining mangrove forests in Java and ecologically valuable species and habitats. Despite decades of multi-million-dollar interventions of international donors and an abundance of studies, sedimentation and mangrove degradation continue. Knowledge about the social causes of these processes has hitherto been extremely limited. Martin C. Lukas has now been able to show that partially wrong assumptions, so-called 'environmental myths', were the reason for the unsuccessful interventions.

The jury, consisting of Dr. Rita Kellner-Stoll and Reiner Stoll of the KELLNER & STOLL FOUNDATION, ZMT Director Prof. Dr. Hildegard Westphal, Prof. Dr.

Anna-Katharina Hornidge, Head of the Department of Social Sciences at the ZMT, Prof. Dr. Andreas Breiter, Vice Rector for Research and Young Academics, Prof. Dr. Justus Notholt, Professor for Earth Remote Sensing (both University of Bremen) and ZEIT Science Editor Fritz Habekuß evaluated the submitted works based on the criteria of the CAMPUS PRIZE and consensually selected the winner. The nominations came from diverse disciplines of the university, ranging from Production Technology and Social Sciences to Marine Biology, and thus reflect the diversity of sustainability research on the campus.

"The doctoral thesis by Martin Lukas stands out due to its professionalism, the transfer achieved in several respects, and the sustainability of the research approach. The range of methods and the interdisciplinarity are convincing. Martin Lukas is equally proficient in applying techniques of both the social sciences and the natural sciences," according to the statement of the jury.

"The doctoral thesis takes a completely new approach to a problem and analyses it even up to the political level. Lukas' research is as courageous as it is relevant to everyday political life, and it provides enlightenment in the best sense of the word. It also addresses a problem of high environmental relevance not only in Indonesia," said **Professor Hildegard Westphal**, Director of the ZMT, who hosted the award ceremony.

"With his research, Martin Lukas has made a fundamental contribution to a better understanding of the rapid, socio-ecological changes on Java. He rejects common explanatory approaches as 'environmental myths' and provides a whole new insight into the drivers of the changes," added **Dr. Rita Kellner-Stoll and Reiner Stoll**, chairpersons of the board of the KELLNER & STOLL FOUNDATION FOR CLIMATE AND ENVIRONMENT.

**Professor Bernd Scholz-Reiter**, Rector of the University of Bremen, praised the socio-political relevance of the work: "Martin Lukas' results explain the lack of ecological and social sustainability of previous interventions and contribute decisively to further debates on future ecologically and socially more sustainable management approaches," said Scholz-Reiter.

In his studies, Martin C. Lukas linked historical, remote sensing, mapping, and different social science approaches and methods. In this way, he not only reconstructed the historical course of rapid siltation on the coast, but also analysed land use and other environmental changes and their causes throughout the total catchment area of the lagoon. Lukas also studied approaches of political regulation, including the consequences of wars and

civil wars on land use.

In her laudatory speech for the award, **Professor Anna-Katharina Hornidge** emphasised the interdisciplinary approach in Martin C. Lukas' research: "The work of Dr. Lukas is characterised by immense empirical depth and data diversity, which enables an interdisciplinary analysis from multiple perspectives. What is often discussed under 'field research in difficult contexts' has enabled Dr. Lukas, with great personal commitment, to make a major contribution to breaking up disciplinary and analytical approaches based primarily on Western empiricism," said Hornidge.

In the evening, the prize-winner himself gave an overview of his research findings in a lively presentation. "I hope that my study, which uncovered the numerous conflicts over land and forest resources, will exert political pressure that can contribute to conflict resolution. Coping with these historically rooted conflicts is not only of key importance for a more sustainable soil, forest, river catchment area, and coastal zone management. It is also urgently needed as part of the (still fragile) democratisation of Indonesia," **Dr. Martin C. Lukas** said.

He went on to say: "For me the prize is a great honour. I would like to thank the KELLNER & STOLL FOUNDATION, the sponsors, the jury, and all those who have contributed to the organisation of today's prize ceremony as well as all those who have supported my work – in particular Professor Michael Flitner, who supervised my doctoral thesis."

The cello quartet "Not Sweet", led by **Götz Kelling-Urban**, provided the musical accompaniment of the award ceremony.

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The CAMPUS PRIZE jury with prizewinner Dr. Martin C. Lukas

From left: Prof. Dr.-Ing. Bernd Scholz-Reiter, Dr. Rita Kellner-Stoll, Reiner Stoll, Prof. Dr. Hildegard Westphal, Fritz Habekuß, Dr. Martin C. Lukas, Prof. Dr. Justus Notholt and Prof. Dr. Anna-Katharina Hornidge. Copyright: Harald Rehling / University of Bremen / ZMT