

## Challenges and Advances in Environmental Change

PhD short Course offered within the framework of MIRAI 2.0. The course was jointly designed and implemented by Sophia University, Japan and Linköping University, Sweden.

Course title: **Challenges and Advances in Environmental Change**

Duration: 13 September 2022 - 12 December 2022

Program Coordinators: Guangwei Huang, Sophia University; Alex Enrich Prast, Linköping University

**Lectures: (90 minute class)**

<Lecture title>	<Lecturers>
<b><u>Module A “Concept and theory”</u></b> 1 "Weak, Strong Sustainability and Planetary Boundaries" 2 "Drivers of transformations: the what, when, who and how of societal change toward sustainability"	Guangwei Huang, Sophia University Björn-Ola Linnér, Linköping University
<b><u>Module B “Pathways and approaches for SDGs implementation from biogas perspective”</u></b> 3 "Biomass utilization and regional symbiosis" 4 "Biogas and regional symbiosis in Sweden – prospects, achievements and challenges"	Xuepeng Qian, Sophia University Stefan Anderberg, Linköping University
<b><u>Module C: “Multi-sector partnerships in climate change mitigation and adaptation”</u></b> 5 "Exploring cases of business and other actors in society for climate change" 6 "Exploring multinational companies’ and multisector partnerships’ role in climate change mitigation"	Masachika Suzuki, Sophia University Anna Ljung, Linköping University
<b><u>Module D: Waste management– challenges in relation to the development of a circular economy</u></b> 7 "Municipal solid waste management in Sweden" 8 "Development of waste management in Japan"	Stefan Anderberg, Linköping University Xuepeng Qian, Sophia University
<b><u>Module E: The water-society nexus</u></b> 9 "Moving from sectoral control to integrated watershed management" 10 "Landscape water management in Sweden and associated challenges in a changing climate"	Guangwei Huang, Sophia University David Bastviken, Linköping University