

## SLE OVERSEAS RESEARCH PROJECTS 2022

<b>TITLE</b>	<b>Increasing Resilience to Climate Change through Adaptive Policies promoting Agroecology – A comparative Perspective at the Agriculture-Water Nexus in India and Germany</b>
<b>COUNTRY</b>	India (Karnataka, Andhra Pradesh, Madhya Pradesh) and Germany (Brandenburg)
<b>COOPERATION PARTNER</b>	Environment Cluster of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) India, the Support to Agroecological Transformation Processes in India (SuATI) project and Water Security and Climate Adaptation in Rural Areas (WASCA) project

<b>BACKGROUND</b>	<p>Both India and Germany, are facing important challenges in establishing adequate climate adaptation approaches and policy instruments, which is particularly evident at the water-agriculture nexus. India already struggles with dwindling and partially contaminated water resources, inadequately designed rural infrastructure and related health consequences for India's rural population. In Germany, the consequences of more frequent droughts, temperature increases and changed rainfall patterns, are projected to cause large-scale forest fires, severe water deficits for agriculture and urban areas, and a dramatic decrease of biodiversity. In both countries, a higher likelihood of severe inundations additionally threatens soils and harvests and even the lives of people in some regions.</p> <p>Climate-adapted, sustainable management of water and soil resources need to be improved urgently in both countries. However, limited understanding about climate adaptation measures in the water-agriculture nexus and lack of an enabling policy framework, besides others, are contributing to inadequate measures or insufficient implementation of the same. Mutual dependencies between climate adaptation needs, agriculture, and an integrated water resources management, often remain ignored. Agroecology, a holistic approach to farming, promotes principles such as synergy, efficiency, closed nutrient cycles, and resilience. It has demonstrated to increase climate adaptation and resilience at local scale and thus offers the potential to strengthen adaptive capacities and broader agri-food system transformation outcomes. The comparative perspective of these challenges and respective policy approaches and measures in selected regions in India and Germany provides new opportunities for the co-creation of knowledge (learning from each other) in international collaborative research efforts.</p>
<b>OBJECTIVE</b>	Identification of frameworks, approaches, and methodologies for adaptive policy-making that strengthen an agroecological food system transformation - with a specific focus on the water-agriculture nexus - in selected regions of India and Germany.
<b>PRODUCT</b>	<ul style="list-style-type: none"> <li>• An overview of the current situation, trends and existing adaptation policies and programmes in the water-agriculture sector in India and Germany - in selected case study areas</li> <li>• A brief analysis of past and current GIZ-engagement in the agricultural-water nexus concerning climate adaptation measures.</li> <li>• Provide policy recommendations based on the identification of win-win strategies for adaptation approaches, specifically agroecology approaches, in the water-agriculture nexus for Germany and India</li> </ul>
<b>TEAM</b>	International team of 4 SLE Graduates and 4 Graduates from India. Language: English (as team and publication language; German interviews including translation into English in Germany demanded)
<b>TEAM LEADER</b>	Teamleader and Co-Team Leader of the India Institute of Technology Madras
<b>BACKSTOPPING</b>	Dr. Susanne Neubert