

Rationale

The complexity of today's urban-rural constellations requires new instruments that can assist us in reading and revealing the actors, institutions, and processes shaping the dynamic urban-rural transformation processes and their socio-spatial impacts, and at the same, productively enhancing inherent and locally specific urban-rural qualities.

Most urban-oriented research and policy design in China is still devoted to the development of new mega cities and vast urban concentrations. Moreover, urbanisation dynamics generally remain associated with development and poverty reduction, with the assumption that urbanisation will lead to more prosperous and sustainable regions. However, urbanisation dynamics are also producing challenges including the creation of new forms of inequality, socio-spatial polarisation, as well as divergence in development, which is decoupling urban centres and their unevenly developed hinterlands. Furthermore, this fast track economic and urban growth has led to major threats to biodiversity, ecosystem services, and environmental systems, caused unprecedented levels of air pollution in urban centres, considerably disturbed the water system, and left important cultural landscapes in crisis across China.

The Chinese national government has started to draw attention towards the protection of environmental systems, as well as narrowing polarisation between 'urban' and 'rural' areas. Rural reconstruction programmes envision the development of a 'beautiful and harmonious countryside', and are beginning to address the importance of stabilising formerly rural regions. Although these programmes embody potential for generating new sustainable livelihoods and local economies in formerly rural areas, many developments focus minimal attention on local challenges, peculiarities, resources, and actors leading to standalone solutions without substantial regional coherence and resilience. In addition, so far, the programme falls short of offering clear toolkits or policy directions, or a recognition of the importance of urban-regional linkages in achieving sustainability.

The joint research and development project "Urban-Rural Assembly (URA)" takes this as a starting point, examining the vastly urbanising region of Huangyan-Taizhou, which is part of the Chinese 'prefectural-level city' Taizhou, as an exemplary case study and learning context: a rapidly urbanising region where diverse and seemingly contradictory transformation processes take place simultaneously in close proximity, producing new

forms of urban-rural interdependencies. Drawing on a systemic approach of transformation science and transition research, URA aims to contribute to a specific transformation-to-sustainability process: to address the problematic polarisation between urban growth areas and their formerly rural hinterlands by strengthening urban-rural linkages. Few research projects so far have built substantive evidence-based knowledge on the complexity of today's urban-rural constellations and interdependencies in China. By addressing this knowledge gap, the project aims to provide the missing conceptual tools needed to understand current trends and to develop innovative policy instruments that can help to guide the urban-rural interface towards an inclusive, actor-based, and socio-ecologically just development.

Building upon the hypothesis that local social and economic innovations can become catalysts in broader change processes, URA aims to develop site-specific implementation strategies within Local Transformation Laboratories (Reallabore) to complement policy design. Through testing ways in which integrated thinking around the nexus of cultural heritage, renewable resources, and food security, concrete community-driven pilot interventions will be developed to explore and strengthen the manifold potentials of urban-rural linkages in the Huangyan-Taizhou region. Both policy design and concrete implementations aim to strengthen the currently neglected socio-spatial dimension of the understanding of urban-rural interdependencies, in order to embed technological innovations in a broader and more holistic development approach that include the local population as a source of cultural and social innovation along the transformation-towards-sustainability.

Based on the on-going experiences and results of the inter- and trans-disciplinary research process, and alongside the implementation of pilot interventions, new strategic multi-level, multi-actor policy guidelines and enabling tools will be developed to strengthen urban-rural linkages towards a progressive regional model of socio-ecologically inclusive and cooperative development at the urban-rural interface.

Building on a trans- and inter-disciplinary research design the URA team will: (1) build an inter-disciplinary and multi-scalar understanding of trans-local urban-rural interdependencies and metabolism at the urban-rural interface; (2) strengthen urban-rural linkages through developing and implementing community-driven pilot interventions that enhance resource efficiency and reinforce regional circular economies in the fields of cultural heritage, renewable resources and food security tested in Local Transformation Laboratories (Reallabore); and (3) develop new strategic multi-level, multi-actor governance tools that enable local municipalities to manage urban-rural linkages towards a progressive regional model building on socio-ecologically inclusive and cooperative development approaches.

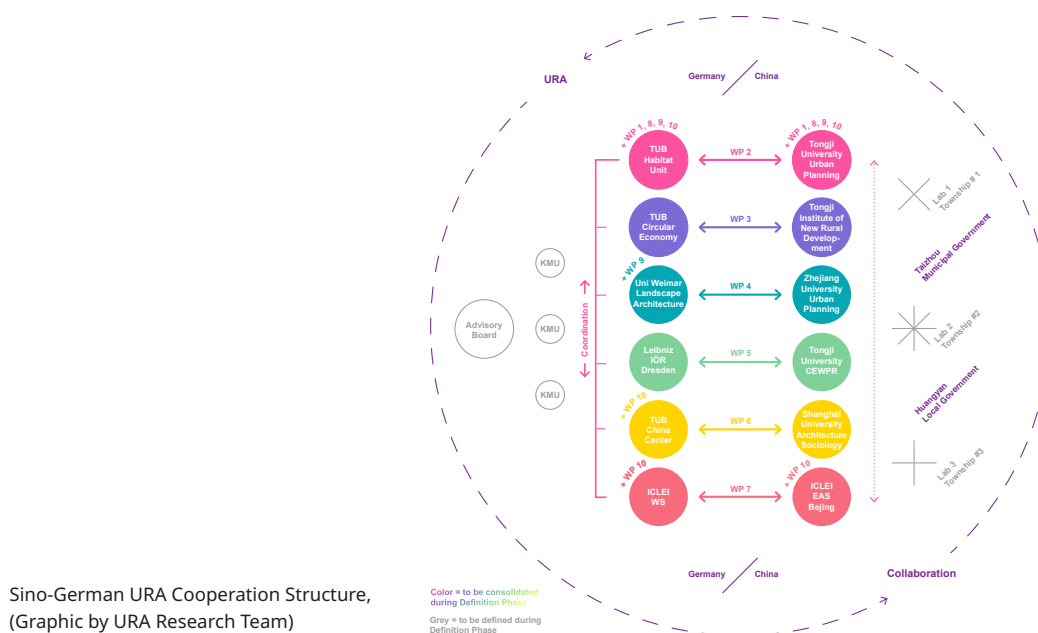
Through the development of transferable actor-based and inclusive planning approaches including enabling tools and guidelines (i.e. Raumbild approaches already tested in Germany), the project seeks to foster knowledge dissemination across the coastal urbanisation corridor - contributing to the urgent need for creative approaches towards localisation and implementation of the SDGs and the New Urban Agenda in China and beyond.

Research Structure

Building on long-standing collaboration between German and Chinese research institutions, URA follows a systemic and inter-disciplinary research and development approach aiming to explore and strengthen urban-rural linkages in the case study region of Huangyan-Taizhou.

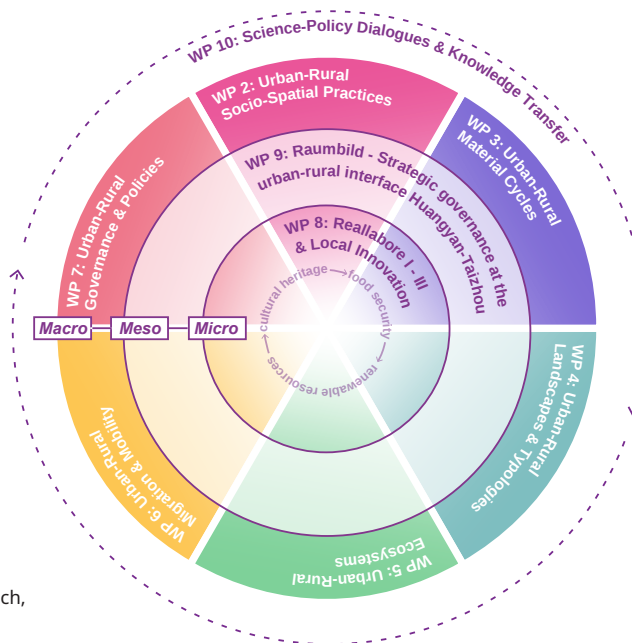
The research and development project URA consists of ten Working Packages (WPs) that are conducted in parallel during the project period. The WPs 2-7 create the scientific backbone of the inter-and trans-disciplinary research on urban-rural interdependencies and metabolism in the case study region of Huangyan-Taizhou. Therefore, six context related research topics, led by specific Sino-German research teams, have been defined with the aim of investigating the manifold interdependencies within the urban-rural continuum along specific material and non-material flows (e.g. people, goods, information).

Contextual research along the research themes is required to analyse the multi-layered urban-rural interdependencies that link the case study region to the broader social, economic and ecological context of China's coastal urbanisation corridor (Macro Scale). In parallel, URA practices the contextual research on a micro-scale, following the approach of 'Local Transformation Laboratories – Reallabore (Micro Scale). By bringing both scales together, the project aims to develop a trans-local and poly-contextual understanding of urban-rural interdependencies and flows, as well as to determine the most relevant actors, institutions and technologies (system knowledge) within the case study region Huangyan-Taizhou. On the other hand, it ensures that societal, political and economic needs and objectives of local transformation processes within the case study region are identified and linked (target knowledge).



Sino-German URA Cooperation Structure, (Graphic by URA Research Team)

Against this background, URA follows a systemic and actor-based research and development approach aiming to conceptualise and develop specific implementation strategies together with key actors on-site (WP 8). Based on the on-going experiences of the inter- and trans-disciplinary research activities and the implementation of pilot projects (transformation knowledge), new strategic multi-level, multi-actor governance tools will be developed to strengthen urban-rural linkages towards an inclusive and cooperative development at the urban-rural interface of Huangyan-Taizhou (WP 9). The joint project will be accompanied by a comprehensive process of knowledge dissemination including on-going science policy-dialogues (WP 10).



Inter- and Transdisciplinary URA Research Approach, (Graphic by URA Research Team)

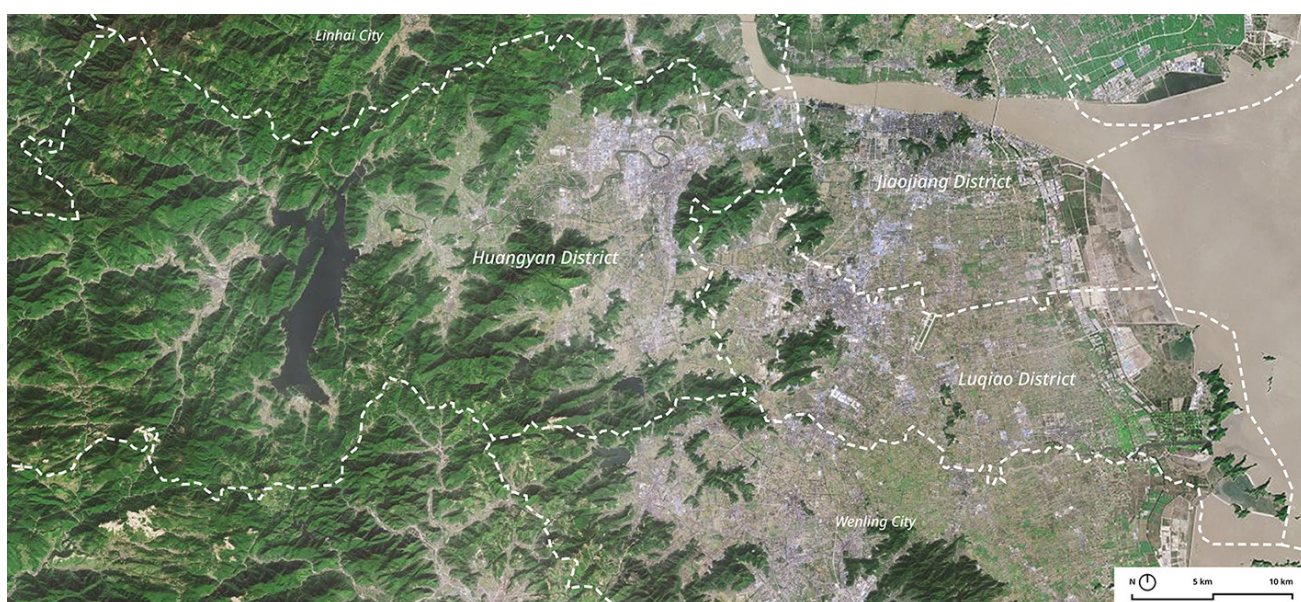
Case Study Region

URA's research focuses on Huangyan-Taizhou urban region as part of the Taizhou prefecture-level city located at the verge of the affluent and highly urbanised clusters of the Yangtze River Delta in Zhejiang province in east China.

Up to now, the knowledge production regarding mechanisms of urbanisation tends to come from the large urban centres and cities that are either mega in size or holding an elite position influencing global political economics. Yet, there is a growing recognition of the need to consider a broader range of cities that fall outside the remit of the privileged few and have evaded critical attention. URA's research and development approach, thus, focuses on an urban region as such: Huangyan-Taizhou, which is part of the Taizhou prefecture-level city located in Zhejiang province in east China.

URA's selected research and development region falls mostly under the administrative boundaries of the three urban districts of Taizhou city (Jiaojiang, Luqiao, and Huangyan), where the most drastic urbanisation processes occur in a more orchestrated and integrated manner. Overall, this urban region has gone through rapid urbanisation processes, especially since the economic reform in 1978. In 1949, the urbanisation rate was merely 7.07%, by the end of 2018 Taizhou has counted a population of 6.054.000 and the percentage of its registered urban residents has been 44.72%, ranking the 5th in Zhejiang province. By the number of actual inhabitants in the urban jurisdictions, its urbanisation rate has amounted to 63%. Even if Zhejiang province is rated to have the highest quality of urbanisation nationwide, however, it thus also faces the most severe challenges regarding, e.g., sustainable use of land and natural resources, deterioration in the peripheral villages, equitable social services to inhabitants with different social status, and changes of ecosystem service value.

Both the qualitative and quantitative indicators (the size of inhabitants, the economic and the industrial indexes, the positionality in the hierarchical urban system etc.) suggest that Taizhou city represents the median of the cities within the scope of highly urbanised Yangtze Delta region. Also, the jurisdiction of Taizhou municipality can hardly be deemed as homogenous in the social nor physical sense, it encompasses places with distinct physical geographical endowments, and administrative units entitled to various status, with their own centres, names and historicities. For URA, this 'normalness' of complex and heterogeneous urban-rural constellations and linkages makes Huangyan-Taizhou urban region an outstanding case to understand the contemporary drive of urbanisation across east Chinese cities alike.



Huangyan-Taizhou urban region (Huangyan District, Jiaojiang District, Luqiao District) in Zhejiang Province, (Map and Graphic by URA Research Team)

