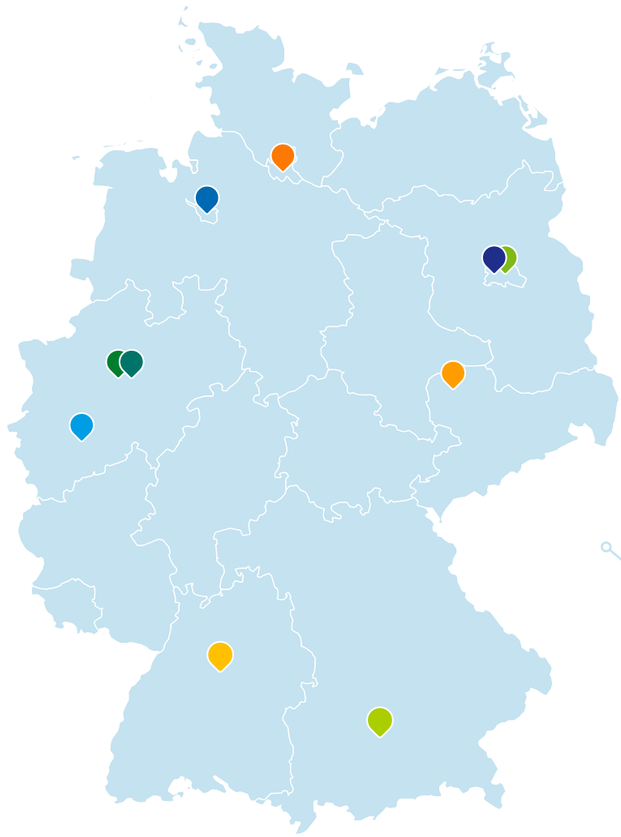
SURE Highlights

Shaping Sustainable Urban Regions

Sustainable Development of Urban Regions



Collaborative Projects

- Build4People
- CHARMS
- emplement!
- FloodAdaptVN
- GreenCityLabHué
- IMECOGIP
- LIRLAP
- MYrisk
- PolyUrbanWaters
- URA

Preface

Jan Eliasson 'UN Deputy Secretary-General' stated in his opening remarks during the Mayor's Forum of the World Cities Summit in New York in 2015 that 'Cities are where the battle for sustainable development will be won – or lost if we fail' – and looking at the facts, it stands to reason.

By the year 2050 70% of the world population, i.e. around seven billion people, will live in cities. Already today, cities host more than 50% of the world's population, and the trend towards urbanisation continues unabated, especially in developing and newly industrialising countries. Up to 80% of the worldwide demand of energy and resources are consumed in urban regions, which are responsible for more than three-fourths of global CO_2 emissions.

Since the endorsement of the 'New Urban Agenda' at the Habitat III conference in 2016, there has been a shift in perspective that recognises urbanisation not solely as a challenge but also acknowledges cities as potential contributors to the solution.

The German Federal Ministry of Education and Research (BMBF) supports the implementation of the United Nations Sustainable Development Goals (SDGs) and of the New Urban Agenda through its FONA strategy ('Forschung für Nachhaltigkeit'), which promotes research and innovations to enhance sustainability.

In order to contribute to these goals, in 2017 BMBF launched the SURE Funding Priority, 'Sustainable Development of Urban Regions'. SURE aims to develop and test particularly innovative measures for climate change adaptation and action options to address region-specific challenges and support sustainable urban development.

Within the framework of SURE, ten collaborative research projects of German scientists and practitioners together with partners in Southeast Asia and China developed implementation strategies for sustainable urban development and improved quality of life.

This brochure provides an overview of the various objectives and the successes of these projects so far.

The ‘Sustainable Development of Urban Regions’ Funding Priority

The ‘Sustainable Development of Urban Regions’ (SURE) Funding Priority supports collaborative projects developing locally implementable solutions for the sustainable urban development and improved quality of life in urban regions in Southeast Asia and China. In 2020 ten research projects with various local foci, along with a dedicated project that works on cross-project analysis, facilitation and synthesis activities within the SURE network were selected for funding.

The main objective of these projects is the development and testing of concepts and tools for a sustainable development and resilience of fast-growing urban regions. These concepts and tools lead both to the strengthening of ecological factors and to greater resilience of urban areas in face of extreme weather conditions and other consequences of climate change. In particular, following topics are in focus of the SURE projects:

- Ecosystem services and nature-based solutions
- Urban-rural nexus
- Risk management and risk reduction
- Sustainable behaviour and practices
- Resource efficiency and mitigation
- Integrated planning and development

These thematic areas serve as foundation for cross-project exchanges on case studies and methodologies. Additionally, the overarching synthesis and cooperation are expected to generate valuable insights and contributions for both science and practice.

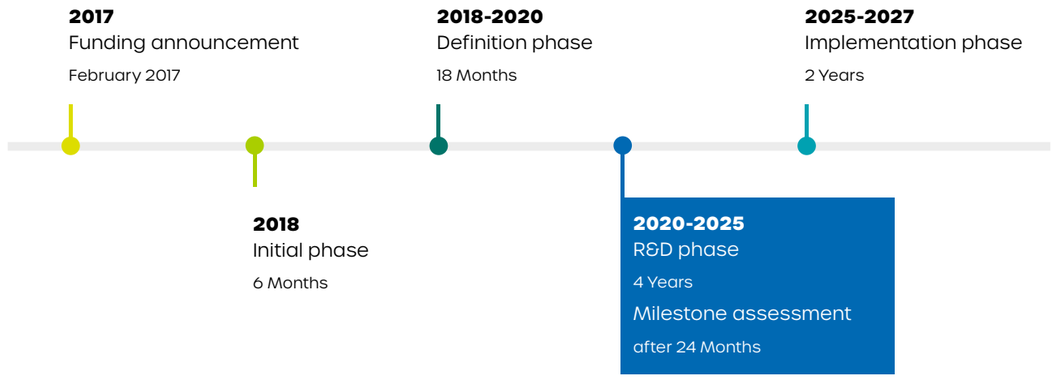
In order to adequately address the complexity of these tasks, the projects of the SURE Funding Priority are set up in an interdisciplinary as well as transdisciplinary way. The project teams demonstrate their interdisciplinary competence by integrating research branches such as urban planning and architecture, engineering and computer sciences, ecology and geography or sociology. In addition to the exchange of relevant disciplines, it is equally important for the SURE collaborative projects to establish dialogues with the different actors from practice to build up local capacities for action. This is already laid out in the research design: Actors from research, local governments, private sector, public institutions and civil society work closely together, sharing knowledge for action towards a sustainable future. This cooperation and participation of different stakeholders and actors leads to the development of suitable and effective concepts and instruments. In this way, solutions are set in motion that have a high level of acceptance and feasibility in practice as well as a considerable transfer and scalability potentials.

From Research & Development to Implementation

The SURE Funding Priority is divided into several phases to allow for the effective creation and implementation of solutions. Following the funding announcement in 2017, the ‘initial phase’ started to bring potential research partners from Germany and Southeast Asia together. This phase had the objective to serve as a platform for the development of ideas for collaborative projects for sustainable and resilient urban development in Asia. In the subsequent ‘definition phase’, the projects’ consortia developed a research plan and started the collection of data and first actions for the ‘R&D phase’ activities. The already well-established connections between the German and Chinese partners allowed them to directly commence the ‘R&D phase’. During the ‘R&D phase’ concepts and tools were developed and tested. The main results of this phase are summarised in this brochure.

In 2025 starts the ‘implementation phase’ of the SURE Funding Priority, in which selected SURE projects receive financial support for the scientific monitoring of long-term implementation and upscaling of the solutions they developed.

Over 50 German and 100 Asian organisations formed partnerships until the completion of the ‘R&D phase’, involving actors from public and private institutions and civil society. In the years to come, it is expected that the number of organisations in this network will grow, allowing for more knowledge exchange and fact-based decisions for all involved parties.



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+ 50
German Partner Organisations

8
Asian Countries

+ 100
Asian Partner Organisations

Build4People
RESEARCH FOR BETTER QUALITY OF URBAN LIFE

R&D Phase – Project Duration
04/2021 – 06/2025

German Partners
- Hamburg University
- Magdeburg University
- Technical University of Applied Sciences Lübeck
- Eberswalde University for Sustainable Development
- Eble Messerschmidt Partner
- INKEK - Institute for Climate and Energy Concepts

Asian Partners
www.sustainable-urban-regions.org/project/build4people

Selected Publications
- Jayaweera, R. et al. (2023). Urban Transition Interventions in the Global South: Creating empowering environments in disempowering contexts? Energy Research & Social Science.
- Se, B. et al. (2024). The Effects of Urban Heat Island in Phnom Penh: A Case Study of Khan Boeung Keng Kang and Khan Pou Senchey. Insight: Cambodia Journal of Basic and Applied Research, 6(1), 8–22.

Looking into the Future
- Tackling the Twin Transformation of digitalisation and sustainability to promote participatory, inclusive and sustainable transformation in urban Cambodia.
- Implementation of the PPCH Transformation Toolbox as digital planning tool that enables evidence-based data driven decisions towards sustainability and enhanced quality of life.

Enhancing Quality of Life through Sustainable Urban Transformation

Cambodia's vivid economic growth and the related construction boom are dominated by short-term profit interests and generally challenge sustainability. Build4People seeks to encourage a shift from design-led technocratic planning to more participatory and inclusive processes, thereby involving multiple stakeholders from science, politics, business, and civil society through various innovative transformative formats such as living labs, building arenas or sustainable business incubators. The key goal is to promote sustainable neighbourhood development and to foster urban quality of life from a people-centred perspective.

Main Results

Based on a transdisciplinary research design, the Build4People project establishes participatory transdisciplinary formats such as living labs or social innovation platforms. In this way, local actors from politics, business and civil society generate knowhow together with researchers, which can promote a sustainable urban transformation. Experts from environmental psychology, civil engineering, urban planning, architecture, urban climatology, remote sensing and human geography are involved. Collaborative research methods such as living labs ('Ecocity Transition Lab'), and strategic niche management approaches ('Sustainable Building Incubator') are applied. For example, in the 'Sustainable Building Arena', local sustainability pioneers develop joint visions and strategies and prepare experimental projects for subsequent implementation. In a final step, the application of the empirical results in action research processes will also lead to an integration of the knowledge created and a subsequent expansion of the theory.

Along the participation and planning processes, altogether four cycles of the so-called Build4People Ecocity Transition Lab were conducted as integrative and interactive planning process on a specific site at the urban-rural edge of Phnom Penh. Together with citizens, local academia from various universities, public and private sector as well as experts from other international donor-funded projects, the aim was to identify a common understanding about the current urban challenges, to create new alliances and to enhance capacity as well as to jointly develop innovative practices among all participants. Finally, an alternative urban sustainability vision was presented to local key decision makers. Collective learnings from this process have been permanently integrated in the so-called Phnom Penh City Hall (PPCH) Transformation Toolbox. This tangible Build4People output product provides (minimum) criteria, guidelines, tools and manuals to different stakeholders in order to support the application of strategies for sustainable neighbourhood development in urban Cambodia.

» Build4People Supports the Shift towards Sustainable Urban Transformation of Phnom Penh. «

Concerning scientific analysis, several studies were carried out, such as daily variation of urban heat island (UHI) and seasonal variation of urban heat island intensities, as well as the characteristics of wind speed and direction, and the relationships between the UHI, wind speed, and human thermal comfort in Phnom Penh. The results expand the understanding of the UHI effects that can help policymakers and/or urban planners create the appropriate UHI mitigation and adaptation measures. Furthermore, it is also the first result for further in-depth future research focusing on the relationship between the UHI intensity and thermal comfort for urban people in Phnom Penh city to enhance the urban quality of life.

Impacts

- Development of locally adapted minimum criteria of sustainable neighbourhoods to make the sustainability performance of urban development projects more transparent and thus to provide Phnom Penh with a tool to select the development proposal with the best sustainability performance.
- Establishment of the tangible output product of the PPCH Transformation Toolbox.
- Strengthening the institutional and regulatory role of Phnom Penh within the national governance framework.
- Facilitation of a transformative shift towards more sustainable urban development pathways.

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Carrying Heritage Buildings as Part of Urban Regions into a Modern and Energy-Efficient Society

Traditional Thai wooden houses often rely on energy-intensive solutions exacerbating urban heat islands and increasing energy consumption. CHARMS uses the principle of 'preservation through use'. It integrates innovative and sustainable solutions, such as bio-based materials like Typha insulation boards, to enhance energy efficiency and indoor comfort of these historic structures. Furthermore, it explores the potential of bio-based materials in the development of innovative, sustainable buildings. This approach not only improves living conditions and safeguards valuable cultural heritage but also advances a more sustainable, energy-efficient, and resilient built environment.

Main Results

CHARMS has made significant strides in transforming cities into urban carbon sinks. Originally centred on preserving traditional wooden structures, the project has expanded its scope to investigate the utilisation of bio-based materials, such as the innovative typha-board insulation. These materials not only enhance the energy efficiency of heritage buildings but also sequester carbon, significantly contributing to the reduction of urban carbon footprints. CHARMS emphasises a dual approach, prioritising both the retrofitting of existing structures and the incorporation of bio-based materials into new construction projects.

A key achievement has been the successful demonstration of the insulation material 'typha board.' Research conducted in Chiang Mai, complemented by a living lab demonstration in Bangkok, has unequivocally shown that typha insulation significantly reduces energy consumption and maintains stable indoor temperatures. While the material's high airtightness necessitates careful consideration of humidity control measures, its proven ability to enhance thermal comfort and lower energy demands underscores its significant potential for wider application in tropical climates.

Community engagement has been paramount to CHARMS' success. Utilising innovative tools such as SenseMaker®, the project has effectively captured diverse perspectives on preserving wooden buildings, ranging from their profound cultural and personal significance to the practical challenges of higher costs and regulatory hurdles. Community feedback has directly informed targeted awareness campaigns and pilot projects, effectively addressing misconceptions about bio-based materials while simultaneously promoting their safety, durability, and strong alignment with local traditions.

Capacity building constitutes a major outcome of CHARMS. The project has developed a comprehensive catalogue of case studies showcasing successful social innovations in heritage management. This knowledge is disseminated through an e-training programme entitled 'Sustainable Heritage Management Masterclass series', offered in collaboration with UNESCO Bangkok and the Malaysian think tank ThinkCity. These programmes equip professionals with vital skills in sustainable urban planning and heritage preservation, fostering a new generation of experts who are well-equipped to address the challenges of the 21st century.

CHARMS has actively engaged with Thai authorities to influence policy and regulations. This includes collaborative efforts to establish standards for the sustainable retrofitting of residential wooden buildings and the utilisation of bio-based construction materials. Selected factsheets outlining standards from the International Association for Science and Technology of Building Maintenance and Monuments Preservation e.V. (WTA) were discussed with Thai experts to identify existing regulatory gaps and create an enabling environment for the widespread adoption of sustainable construction practices.

» Transforming Cities into Live and Lovable Carbon Sinks. «

Impacts

- Paving the way for cities to act as carbon sinks and demonstrating pathways to restorative urban regions aligned with the SDGs.
- Advocating for the integration of bio-based insulation materials into the SDGs to ensure safe, sustainable, and pleasant living conditions in indoor spaces.
- Fostering innovation and ensuring the transfer of sustainable building expertise to future generations through training and capacity-building efforts.
- CHARMS drives Asia and Europe's transition to a circular, bio-based economy while offering scalable solutions for global urban challenges.

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CHARMS

R&D Phase – Project Duration
07/2021 – 06/2025

German Partners
- Fraunhofer Center for International Management and Knowledge Economy
- Fraunhofer Institute for Systems and Innovation Research
- Fraunhofer Institute for Energy Economics and Energy System Technology
- Fraunhofer Institute for Building Physics
- Fraunhofer Institute for Open Communication Systems

Asian Partners
www.sustainable-urban-regions.org/project/charms

Selected Publications
- Krus, M. et al. (2024). Utilisation of typha-boards for preserving the historic wooden houses typical of the region in the Thai city of Chiang Mai (Thailand). Journal of Asian Architecture and Building Engineering, 1-10.
- Sannikova, V. and Beermann, H. (2025). Das Chantaboon-Modell: Soziale Innovation und Kulturerhalt durch partizipative Finanzierung. Thailand Rundschau, 38(1) (German).

Looking into the Future
- CHARMS evolved into a dynamic platform for bio-based urban development, which culminated in the launch of CHARMSbio, a dedicated Competence Centre for Bio-Based Urbanism in Bangkok. CHARMSbio will spearhead the integration of bio-based materials within urban environments, fostering innovation and sustainable practices in urban development.

emplement!

R&D Phase – Project Duration
06/2021 – 05/2025

German Partners
- AT-Verband
- Frankfurt University of Applied Science
- IZES gGmbH
- Ostfalia University of Applied Sciences
- University of Hohenheim
- University of Tübingen

Asian Partners
www.sustainable-urban-regions.org/project/emplement

Selected Publications
- Restrepo Rico, S. and Peterek, M. (2024). Empowering Rural Communities: A Theoretical Approach to Sustainable Tourism through Community-Based Development.
- Dress, M.-L. (2024). Community-based tourism in the Cu De River Valley in Vietnam.

Looking into the Future
- Monitoring and analyses of the development, planning and implementation of processes of resulting small-scale projects.
- Development and sharpening of approaches and upscaling of projects for practical implementation.

Empowering Urban Regions for Cooperative, Synergistic and Practical Implementation of Sustainability and Resilience Strategies Considering the Urban-Rural Nexus

Rapid growth poses major challenges to cities and their surrounding regions in Vietnam. The emplement! project considers systemic city-regional nexus and develops transferable tools and capacities that enable stakeholders in the provinces Da Nang and the Quang Nam to implement strategies into practical, sustainable, and resilient city-regional measures. emplement! focuses on four fields of action: Tourism, agriculture, industry, and built environment, developing a methodology facilitating implementation that is transferable to other cities and urban-regional contexts.

Main Results

The emplement! project has made significant and sustainable contributions to socio-economic improvement and the strengthening of ecological and social resilience in the Da Nang and Quang Nam regions. Through the strategic development and targeted implementation of various organisational, technical, and construction measures. These were tailored to the specific needs of local communities through careful co-design processes, sustainable and resilient strategies in key areas such as tourism, agriculture and forestry, as well as production facilities.

An important result of the project is the establishment of the Regional Network for Sustainable Tourism (RSTN). This innovative network provides communities and local stakeholders of sustainable tourism a platform for mutual exchange, connecting and learning. The network functions as a catalyst for knowledge exchange and capacity building, promotes cooperation within the tourism industry, and facilitates direct contact with tourists and visitors. Through this exchange, not only is the competitiveness and sustainability of tourism businesses strengthened, but the regional attractiveness as a sustainable travel destination is also enhanced.

Another output of the project is a concept for the implementation and operation of a modern fruit processing centre. This centre utilises advanced sustainable technologies, based on closed-loop and cascade process chains, to efficiently and resource-consciously refine local fruits exploitation. Emphasis is placed on the responsible use of resources. The project is designed as a financially viable foreign direct investment (FDI) project and aims to significantly increase local value creation and create new economic opportunities for the urban region Da Nang and Quang Nam.

» Synergistic City-Regional Development Enabling Sustainable Growth in Vietnam's Provinces. «

In the area of wastewater treatment, an innovative and region-specific planning and implementation process concept was developed and successfully conducted for the Alang Nhu Homestay in Hoa Bac. This innovative process combines a physical pre-treatment of greywater using an oil and grease separator with biological treatment in a modern constructed wetland. This sustainability-oriented method provides an effective and environmentally friendly solution for wastewater treatment and significantly contributes to local environmental health.

To support implementation and further develop these measures, the project team has applied the emplement! implementation methodology and conducted extensive studies and activities. These include summer schools, practice-oriented workshops, capacity development measures, the establishment of stakeholder networks, interview-based surveys, and comprehensive obstacle and potential analyses. The emplement! team additionally focuses on monitoring and detailed analysis of smaller self-developed projects to derive valuable insights and best practices for the practical implementation of larger initiatives.

These impressive project outcomes play a crucial role in empowering local decision-makers and stakeholders in Da Nang and Quang Nam. By promoting sustainable development strategies, the long-term safeguarding of the region's ecological, economic, and social sustainability is ensured. This forms the foundation for a sustainable future and resilient progress of the communities in these significant Vietnamese regions.

Impacts

- Strong local capacities through co-designed measures in community-based tourism, waste treatment and management, sustainable agriculture, and energy-efficient infrastructure, aligning with legal and policy frameworks.
- Enhancement of socio-economic well-being of local communities by promoting sustainable development and better livelihoods.
- Increased resilience to environmental challenges with innovative, sustainable, and nature-based practices.
- Improved wastewater treatment and solid waste management systems for comprehensive and eco-friendly solutions.

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Integrating Ecosystem-Based Approaches into Flood Risk Management for Adaptive and Sustainable Urban Development in Central Vietnam

The project FloodAdaptVN strengthens flood resilience in Central Vietnam by integrating ecosystem-based approaches, advanced tools, and risk-informed planning into flood risk management. The project combines Earth Observation data, hydrological modelling, and socio-economic scenarios to support adaptive decision-making. Through stakeholder collaboration, capacity building, and cross-sectoral planning, FloodAdaptVN develops scalable solutions for disaster risk reduction and climate adaptation, with potential for further upscaling.

Main Results

The project focuses on Thừa Thiên Huế province and the city of Huế, a region increasingly exposed to flood hazards due to rapid urbanisation, climate change, and environmental degradation. By integrating cutting-edge Earth observation, hydrological and hydraulic modelling, socio-economic analysis, and ecosystem-based adaptation, FloodAdaptVN enhances flood risk management and long-term resilience. Key outputs have been successfully integrated into local policy and planning processes, including the Huế Province Master Plan (2025–2030). Moreover, the Committee for Natural Disaster Prevention and Control, Search and Rescue of Thừa Thiên Huế province actively employs FloodAdaptVN products, such as satellite-based flood maps, for infrastructure planning and near-real-time flood assessments.

FloodAdaptVN takes a cross-sectoral approach, addressing flood risks across urban planning, agriculture, forestry, health, and other key sectors. By harmonising data, simulations, and real-time scenarios, the project supports adaptive planning and the comparison of various flood risk reduction strategies, including ecosystem-based, hybrid, and structural solutions. These strategies promote sustainable urban development while enhancing resilience to climate change impacts.

A central element of the project is the FRAME System, a WebGIS (Web Geographic Information System)-based decision support platform built on FAIR (Findable, Accessible, Interoperable, and Reusable) principles. FRAME consolidates flood risk data, socio-economic information, and climate scenarios, enabling stakeholders to visualise current and future flood hazard scenarios, assess vulnerabilities, and design adaptation measures using cost-benefit analyses. Its federated architecture allows for local customisation while ensuring centralised data backups and technical support, enhancing both flexibility and scalability. FRAME and its information products have also been officially integrated into Huế City's information system (HUE-S), improving traffic safety during flood events.

Capacity-building activities play a key role in FloodAdaptVN. Through training sessions, workshops, and collaboration with local stakeholders, the project fosters knowledge exchange and builds long-term capacity for sustainable flood risk management. Local communities and policymakers gain enhanced skills and tools to address both current flood risks and long-term climate adaptation needs.

By leveraging Earth Observation data, innovative hydrological and hydraulic modelling, survey results, and policy framework analyses, FloodAdaptVN offers scalable solutions for integrating flood risk management into broader development strategies. The project sets a benchmark for climate adaptation efforts in Southeast Asia, ensuring that vulnerable regions like Central Vietnam are better prepared to manage the growing risks of floods and other climate-related disasters. Furthermore, the methodologies and tools developed within FloodAdaptVN and experiences of the Vietnamese partners have strong potential for transfer to flood-prone regions in Germany. The complex flood dynamics and rapid urbanisation challenges in Vietnam offer valuable insights that can inform and strengthen adaptive flood risk management strategies in Germany and beyond.

» Advancing Risk-Informed Planning and Ecosystem-Based Approaches for Enhanced Flood Resilience. «

Impacts

- Risk-informed decision-making: Delivered data-driven insights and future scenarios to support prioritisation of flood adaptation measures.
- Capacity building and mutual exchange with Germany: Strengthened local expertise through training, workshops, and co-development, while enriching the German discourse on sustainable practices.
- Enhanced flood resilience: Advanced flood management through ecosystem-based approaches, adaptive planning, and the FRAME system.
- Policy integration: Embedded outputs into local planning frameworks and specific adaptation strategies for actionable impact.

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www.floodadapt.eoc.dlr.de

R&D Phase – Project Duration
04/2021 – 05/2025

German Partners
- German Aerospace Center
- University of Tübingen
- IZES gGmbH
- geomer GmbH
- United Nations University
- Munich Climate Insurance Initiative
- Ludwig-Maximilians-Universität München

Asian Partners
www.sustainable-urban-regions.org/project/floodadaptvn

Selected Publications

- Sett, D. et al., (2024). Advancing understanding of the complex nature of flood risks to inform comprehensive risk management: Findings from an urban region in Central Vietnam, International Journal of Disaster Risk Reduction, International Journal of Disaster Risk Reduction.
- Nguyen, M. T. et al., (2021). Understanding and assessing flood risk in Vietnam: Current status, persisting gaps, and future directions. Journal of Flood Risk Management.

Looking into the Future
- Upscaling: Scale up adaption strategies and technologies (including FRAME) and integrate the results into regional planning.
- Transfer: Adapt project innovations, such as ecosystem-based approaches and risk-informed planning, to flood-prone regions in Germany and globally.

GreenCityLabHuế

R&D Phase – Project Duration
04/2021 – 05/2025

German Partners
- UfU – Independent Institute for Environmental Issues
- Humboldt-Universität zu Berlin

Asian Partners
www.sustainable-urban-regions.org/project/greencitylabhue

Selected Publications
- Scheuer, S. et al. (2024). A Systematic Assessment of Greening Interventions for Developing Best Practices for Urban Heat Mitigation – The Case of Huế, Vietnam. Urban Science.
- Stolpe, F., Hoang, T. B. M. and Nguyen D. H. L. (2023). Stärkung der Klimaresilienz in der vietnamesischen Stadt Huế - Naturbasierte Lösungen zur Reduzierung von Hitzestress und zur Verbesserung der Luftqualität. Transforming Cities 03-2023. Germany.

Looking into the Future
- Publication and dissemination of project results.
- Validation of the policy recommendations during the practical implementation of urban green infrastructure in Huế.

Strengthening Climate Resilience of Urban Regions in Central Vietnam Through Nature-Based Solutions for Heat Adaptation and Air Quality Improvement

The GreenCityLabHuế maximises the city's green-blue potential by sharing knowledge on Nature-based Solutions (NbS) for environmental challenges. It offers space for creativity, discussion, and validation, with input from decision-makers, researchers, stakeholders, and citizens. Leveraging green-blue infrastructure, it addresses climate change and urbanisation, serving as a model for other cities. The project expands green-blue infrastructure as NbS in the 'Green City Lab Huế' and mainstreams NbS into local regulations and planning. It showcases practical NbS approaches and fosters cooperation among science, administration, politics, and civil society to tackle local challenges.

Main Results

During its Research and Development phase, the GreenCityLabHuế project explored how Nature-based Solutions can address urban challenges in Huế, Vietnam. Modelling at selected sites demonstrated that greening interventions, such as tree planting, green facades, and vegetated strips, reduce air temperature and improve outdoor thermal comfort, with tree shade identified as the most effective cooling measure. Co-benefits, including air quality improvement, recreation, and aesthetic value, were also highlighted. At the city scale, GIS-based modelling assessed the potential of widespread NbS adoption to enhance ecosystem services like air quality regulation, recreation, and green space accessibility. This analysis identified priority areas for greening, particularly in planned urban expansion zones, and provided insights into spatial and systemic NbS benefits.

Policy and governance analyses identified barriers to effective NbS implementation in Huế, including insufficient policies, lack of expertise, poor project coordination, limited public awareness, and funding challenges. Stakeholder roundtables revealed that strategic governance, clear guidelines, and cross-sectoral cooperation would be crucial for successful NbS integration.

» Cooperation is Key to Effectively Increasing Urban Resilience through Nature-Based Solutions. «

Participatory events with citizens and community leaders further emphasised citizens' concerns over urban densification, heat stress, and unequal green space distribution and access across the city. Residents called for better maintenance of existing green spaces, the creation of new, evenly distributed green areas, and greater involvement of citizens in planning processes. A survey collected additional data on citizens' environmental perceptions, ecosystem service demands, and preferences for NbS designs.

Four pilot projects of practical NbS implementation, developed in a co-creative process, including the greening of a rooftop of a cultural centre, vertical greening at a schoolyard, and the transformation of two brownfields into small-scale public green spaces, provided valuable lessons on implementation, approval processes, and feasibility of NbS in Huế, while showing that effective NbS projects can be implemented even with small budgets. The findings were compiled into a best practices handbook to guide NbS governance and implementation in Huế, emphasising collaboration between various stakeholders to support Huế's urban resilience.

Impacts

- Promote urban NbS to improve air quality, outdoor thermal comfort, and recreational potential.
- Elaborate best-practice recommendations and a strategy for the implementation and mainstreaming of green-blue infrastructure as NbS in Huế.
- Engage local stakeholders and civil society in collaborative NbS development and implementation.
- Promote knowledge, scientific validation, and capacity building.

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Implementation of the Ecosystem Services Concept in Green Infrastructure Planning

IMECOGIP focuses on developing tools for evaluating and improving urban green infrastructure through the integration of ecosystem services in planning. Green infrastructure is widely recognised to strengthen sustainable urban development. By providing ecosystem services, green infrastructure delivers benefits of nature to humans. It is especially effective for climate adaptation, urban health, biodiversity, and recreation. To quantify ecosystem services IMECOGIP developed EnhancES, a comprehensive toolbox. The project is based on collaboration between science, policy, and practice, offering a methodology that ensures long-term use and adaptability.

Main Results

EnhancES was developed for the mapping, assessment and quantification of a wide range of ecosystem services. It operationalises important classes of the CICES (Common International Classification of Ecosystem Services). Users can choose from twenty ecosystem services and compile a meaningful set of services adapted to the specific planning task at hand. These include regulating services such as flash flood and temperature regulation (cooling intensity), carbon sequestration and storage, particulate matter filtering (PM10), visual screening, pollination and the maintenance of nursery populations and habitats. Included cultural ecosystem services are activities that promote recreation through active or passive interactions with nature and through aesthetic experiences in contact with nature. Finally, provisioning services such as plant and timber production, groundwater recharge are also included.

EnhancES has been developed with the open-source software QGIS and uses national, regional and local geodatabases covering land use and biotopes, soils and climatic variables. The implicit calculations of the services take up the different classification schemes of the databases.

The use cases are derived from existing legal requirements faced by municipalities and regions, as well as from challenges that are becoming increasingly urgent as climate change and biodiversity loss continue to threaten the wellbeing of urban populations. EnhancES' existing use cases cover a wide range of spatial scales, from regions, districts and neighbourhoods to building blocks. They include the assessment, monitoring and marginal evaluation of different development alternatives.

EnhancES promotes ecosystem thinking and can identify synergies and trade-offs between ecosystem services to support the choice of green infrastructure improvements. Once the existing expertise of toolbox users is transformed into actionable knowledge, EnhancES helps to find nature-based solutions. Together with its high flexibility in terms of available data, EnhancES has the potential to become an indispensable tool for urban planning and citizen participation in Germany. In China, the toolbox is potentially used for applications such as territorial spatial planning, guidelines for achieving carbon peak and carbon neutrality, and climate adaptation plans such as the National Climate Change Adaptation Strategy 2035.

» Ecosystem Strategy for Urban Resilience in Metropole Ruhr and Chinese Megacities. «

Impacts

- Strengthening the urban resilience through the integration of green infrastructure in both the Ruhr Metropolis and Chinese megacities.
- Stronger collaboration with local authorities and researchers to address challenges in implementing nature-based solutions.
- Enhancement of decision-making in urban green infrastructure planning to support sustainable development and resilience.

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R&D Phase – Project Duration
10/2020 – 09/2025

German Partners
- Ruhr University Bochum
- ILS – Research Institute for Regional and Urban Development
- Regional Association Ruhr
- Ministry of the Environment, Nature and Transport
- Bochum City Administration
- Gelsenkirchen City Administration

Asian Partners
www.sustainable-urban-regions.org/project/imecogip

Selected Publications
- Zepp, H. et al. (2023). Modeling the cooling effect of urban green spaces: The neglected control variables of 'soil moisture' and 'biotope types'. Urban Forestry & Urban Greening 90, 128137.
- Zepp, H. et al. (2021). China's ecosystem services planning: will Shanghai lead the way? A case study from the Baoshan district (Shanghai). Erdkunde 75 (4), 271-293.

Looking into the Future
- Further testing of the toolbox in pilot areas like Shanghai, Bochum, and Gelsenkirchen together with public administrations and creating a comprehensive manual for practitioners.
- Continue refining methods for integrating ecological knowledge into urban planning, particularly focusing on climate resilience.

Linking Disaster Risk Governance and Land-Use Planning: The Case of Informal Settlements in Hazard Prone Areas in the Philippines

LIRLAP focuses on informal settlements to lower the risk for residents to bear the consequences of environmental disasters. It assesses future urban growth and densification scenarios in Metro Manila and co-produces will local stakeholders and communities in two pilot studies interventions for resilient upgrading and resettlement. This is complemented by knowledge transfer to and from Bangkok, Thailand and Hanoi, Vietnam. The project activities are accompanied by training courses for local experts and a dual PhD programme between project partners has been established.

R&D Phase – Project Duration
03/2021 – 02/2025

German Partners
- Technical University of Dortmund
- University of Stuttgart
- Ludwig-Maximilians-Universität München
- KaiserIngenieure

Asian Partners
www.sustainable-urban-regions.org/project/lirlap

Selected Publications
- Lauer, H. et al. (2024). Risk reduction through managed retreat? Investigating enabling conditions and assessing resettlement effects on community resilience in Metro Manila. Nat. Hazards Earth Syst. Sci.
- Du, J. and Greiving, S. (2020). Reclaiming On-Site Upgrading as a Viable Resilience Strategy-Viabilities and Scenarios through the Lens of Disaster-Prone Informal Settlements in Metro Manila. Sustainability.

Looking into the Future
- Enhancement of collaboration with local communities, integration of project findings into policy frameworks, and transference of successful strategies to other case studies.
- Partnership with Base Bahai for climate-resilient upgrading of a resettlement site has been established to implement project results.

Main Results

Disasters in cities can arise from natural processes such as weather-related and geophysical hazards but also from human actions. Understanding disaster risks is a prerequisite not only for disaster risk reduction (DRR) but also for the assessment of climate change impacts and planning effective adaptation strategies. Spatial Planning plays an important role in climate change adaptation and disaster risk reduction, particularly as it offers tools to proactively and preventively reduce risk. In order to develop the full potential of spatial planning, it is the key to understand the determinants of climate risk – hazard, exposure and vulnerability – and how physical climate and environmental changes interact with the human socio-economic system.

LIRLAP focused its activities on two jointly selected pilot sites for resilience upgrading and resettlement in Metro Manila, Philippines. In collaboration with local stakeholders, resilience planning and retreat designing were conducted in Metro Manila settlements and then transferred to Hanoi, Vietnam. LIRLAP developed a coherent conceptual framework for the mainstreaming of resilient upgrading and resettlement strategies into urban policies to help actors identifying opportunities and joint challenges across sectors, scales, and planning horizons. These included the creation of two Gaming Simulations to support the transfer of research findings into planning processes.

Downscaling and quantification of national scenarios based on the Shared Socio-Economic Pathways (SSP) were completed for Manila and Hanoi, in Vietnam. This allowed the project team classified different urban structure types. All information collected in the different countries serve as input for the extended SLEUTH – an urban growth model to simulate the future development of informal settlements and risk trends in several urbanisation and socio-economic scenarios.

On policy level, identification of gaps between urban planning and local implementation in Manila and investigation of tools for policy mainstreaming in various national settings took place. This will support decision-makers to update and prepare policies, strategies and measures. Additionally, training courses for key stakeholders involved in disaster risk management and urban governance have been conducted, bringing the knowledge generated in LIRLAP to the most interested parties. In contrast to the new agenda of fast and large-scale in-city retreat, offering a one-size-fits-all solution, there is pressing need for flexible financing schemes and diverse housing and settlement typologies. While existing mechanisms and tools like People's Plan approaches and community mortgage programmes offer potential solutions, their implementation often faces bureaucratic hurdles and lacks prioritisation from stakeholder.

Impacts

- Strengthened community resilience with planning interventions while focusing on reduced social vulnerability.
- Improvement of urban planning strategies to reduce disaster risk on local and national level.
- Mainstreaming of climate-resilient urban planning strategies into local policies to reduce socio-economic vulnerability.
- Training courses for 150+ experts in local governance have been conducted.

Scan or Click for more!
www.lirlap.raumplanung.tu-dortmund.de

»Co-Producing Climate-adapted and Retreat Schemes with Citizens to Elevate Livelihoods.«

Multiple Risks Management of Extreme Events in Fast Growing (Mega)cities in Myanmar

MYrisk focuses on disaster risk reduction and management of multiple risks in the megacity of Yagon and further fast growing cities in Myanmar, for the public and private sectors, academia and the civil society. Yangon and other megacities in the Global South face enormous challenges due to rapid economic and urbanisation dynamics and are additionally threatened by multiple hazards, such as earthquakes, floods, cyclones or pandemics. The overall goal of the project is to develop an Integrated Multiple Disaster Risk Management (IMDRM) for Yangon and other cities in Myanmar to strengthen the resilience for urban societies to disasters. This holistic concept is based on transdisciplinary urban risk and resilience research.

Main Results

MYrisk developed scientific, integrated concepts for maintaining and ensuring the provision of basic services and for risk prevention, implemented locally and transferred them to other (mega)cities. In the partner cities in Myanmar, Yangon, Mandalay and Taunggyi, six household surveys, seven private sector surveys and more than a hundred expert interviews with key informants from the public sector were conducted. In addition, more than 50 workshops have been held on a variety of topics related to disaster risk reduction. On this basis, new insights were gained into risk perception and preparedness, as well as institutional risk prevention, crisis communication and crisis management. The collection of data on previous tropical cyclones, floods and earthquakes, as well as the systematic processing of risk-related data provides insights into past disaster management and the consequences of such extreme events and improvements in disaster risk management in Myanmar.

The analysis of both primary quantitative and qualitative data served to improve the risk communication and cooperation concepts and to develop local disaster risk reduction concepts. For Yangon, a holistic integrated concept for the management of multiple disaster risks was developed for the first time, accompanied by information and qualification programmes to reduce the consequences of multiple risks for a tropical megacity.

A water risk check was developed for the German city of Cologne as an online advisory tool for flood prevention for private households. The tool combines the Cologne flood hazard maps with guidelines and expertise to provide initial assistance in planning measures. This tool was transferred to Yangon based on the information, data and tools available and usable in Myanmar. In addition, the Cologne Fire Department worked with representatives of public institutions in Yangon on extreme, disaster and emergency situations, as well as on evacuation plans and strategies for the cities.

Furthermore, educational and awareness-raising concepts for protecting of personal documents and economic foundations were developed, along with disaster preparedness concepts for system-relevant micro-, small- and medium-sized enterprises (MSMEs) to secure critical infrastructure. In parallel to the research activities in Myanmar, MYrisk also surveyed 775 MSMEs in Cologne. This study revealed that only 17% of these enterprises have an emergency plan for natural disasters, indicating a lack of awareness of the importance of emergency plans in Germany as well. MYrisk used Innovative methods for risk analysis and visualisation in urban areas, developed by integrating existing databases with high-resolution remote sensing data.

» Managing Extreme Events and Multiple Risks in Fast Growing (Mega)cities in Myanmar. «

Impacts

- Development of a holistic, socio-culturally adapted, integrated multiple disaster risk management concept for fast growing tropical (mega)cities.
- Reduction of the impact of multiple disaster risks for civil society, private companies and public institutions.

Scan or Click for more!
www.myrisk.uni-koeln.de

R&D Phase – Project Duration
05/2021 – 04/2025

German Partners
- University of Cologne
- Flood Control Center of the Municipal Drainage Operation Cologne
- Cologne Fire Department
- German Committee for Disaster Reduction

Asian Partners
www.sustainable-urban-regions.org/project/myrisk

Selected Publications

- Heinkel, S.-B. et al. (2025). Institutional risk and crisis communication on natural hazards and disaster risks in Yangon, Myanmar. International Journal of Disaster Risk Reduction 116: 105064.
- Zin Mar Than et al. (2023). Disaster risk perception and preparedness of households in Yangon, Myanmar: Disaster experiences, socio-demographic factors and spatial variation. Erdkunde 77 (4): 303-321.

Looking into the Future
- Increased disaster risk awareness, improved preparedness and capacity enhancement in civil society, research and education, public institutions and private companies.
- Guidelines for emergency and evacuation plans for public institutions and private companies (MSMEs).
- Exchange platforms for sustainable ‘build back better’ strategies.

POLYURBAN WATERS

R&D Phase – Project Duration
04/2021 – 05/2025

German Partners
- BORDA e.V
- TH Cologne – University of Applied Sciences
- Technische Universität Berlin
- Free Hanseatic City of Bremen
- Hamburg Wasser GmbH

Asian Partners
www.sustainable-urban-regions.org/project/polyurbwaters

Selected Publications
- Gutterer, B. et al. (2023). Towards a Sustainable and Water Sensitive Sam Neua Town, Laos – Baseline Study and Strategy Development.
- Setiawan, B. et al. (2024). Vision building for water-sensitive planning: Towards a livable, harmonious, and sustainable peri-urban community of Rejodani, Sleman, Indonesia.

Looking into the Future
- Integration of research findings and tools into frameworks like the Guidelines for Urban Development Planning of the Ministry of Public Works and Transport/Laos and city/provincial plans in Cambodia, Laos, Indonesia.
- Support implementation of Kratié's Urban Wetlands Plan for climate adaptation.

Polycentric Approaches to the Management of Urban Water Resources in Southeast Asia

PolyUrbanWaters is a network that includes academic institutions, municipalities, local and national government agencies, civil society and private-sector stakeholders from Cambodia, Laos, Indonesia, Thailand, Vietnam and Germany. The project aims to generate comprehensive scientific knowledge that helps develop practice-relevant strategic planning models for fast-growing cities and peri-urban areas in Southeast Asia. The project contributes to the development of polycentric approaches for water-sensitive urban planning and inclusive urban water management. It aims to support the transformation of urban spaces into resilient, inclusive, and liveable areas in alignment with national and global sustainability agendas.

Main Results

The Polycentric Urban Water Management approaches support cities in crafting and implementing low-threshold strategies for urban water management and governance, fostering incremental progress toward water-sensitive transformations. PolyUrbanWaters (PUW) builds the capacity to address complex water challenges, tailored to the unique needs of secondary and tertiary cities in Southeast Asia and beyond. Its flexibility and granularity offer structured yet adaptable pathways for achieving sustainable urban outcomes.

For Southeast Asian cities, transitioning to water-sensitive urban models is an ongoing process shaped by rapid urbanisation, limited financial resources, and institutional challenges. This long-term transformation requires coordinated actions, including technological innovation, adaptive governance, community engagement, and sustainable planning, to ensure water safety and resilience to climate impacts.

PUW tools have been developed and tested in the urban contexts of Kratie (Cambodia), Sam Neua (Laos), and Sleman/Sariharjo (Indonesia). These tools are adaptable and can be applied in other Southeast Asian cities and beyond. They address city-specific challenges and opportunities, enhance urban water systems, and promote sustainable urban development. A hallmark of PUW is the integration of grey and blue/green infrastructures (nature-based solutions) to create effective and sustainable water and urban management strategies.

»Water Sensitive Urban Transformation towards Resilient, Productive and Liveable Cities.«

PUW views water as a cross-cutting issue essential to urban sustainability. Services such as water supply, wastewater management, waste management, and flood control are interconnected with larger catchment systems and settlement dynamics. Recognising these interdependencies, PUW advocates a holistic approach to urban planning and governance.

By acknowledging the distinct natural (topographical, climate, etc.), cultural, socio-economic, and governance attributes of each city, PUW embeds water-sensitive practices into urban planning and development. These practices often serve as catalysts for broader urban transformations. PUW goes beyond being a technical framework; it provides a comprehensive strategy for cities and stakeholders through:

- Identifying Water-Sensitive Challenges: Conducting thorough analyses of a city's environment, settlement patterns, economic conditions, social fabric, cultural context, and governance structures to identify trends and challenges, such as flood risks and vulnerabilities.
- Developing Tailored Strategies: Designing participatory and consultative strategies that align with local priorities, integrating both grey and blue-green infrastructure, capacity development, etc.
- Translating Strategies into Actionable Plans: Creating urban development and action plans with short-, medium-, and long-term goals to guide systematic water-sensitive transformations.

PUW supports cities in comprehensive urban water management while enabling targeted strategies such as:

- Integrated flood management
- Climate change adaptation
- Water safety planning
- Green space development
- Urban sanitation improvements
- Disaster prevention frameworks

Impacts

- Development of capacities in local, provincial, and national government entities to enable informed decision-making and initiate water-sensitive urban transformation.
- Establishment of planning schemes for integrated infrastructure development, effectively combining grey and blue-green infrastructure solutions.
- Recognition by government agencies of the critical importance of participatory and consultative approaches for water-sensitive urban transformation.
- Strengthening Southeast Asia-wide academic and professional discourse through robust research findings and empirically tested tools.

Scan or Click for more!
www.polyurbanwaters.org

Strategic Tools for Integrated Territorial Planning Enhancing Urban-Rural Integration and Circular Economies in the Huangyan-Taizhou Region

Urban-Rural Assembly (URA) is creating strategic planning and governance tools to support a holistic and socio-ecologically sustainable transformation of urban-rural regions, treating urban and rural areas as an interconnected entity. It takes an inter- and transdisciplinary approach to develop both quantitative and qualitative methods and aims to craft a participatory, actor-focused strategies that outlines specific transformation scenarios and sustainable interventions for urban-rural regions. URA uses a multi-scalar approach for integrated urban-rural development.

Main Results

Focusing on the urbanising Huangyan-Taizhou region in Zhejiang Province, China, the Urban-Rural Assembly project investigates urban-rural linkages from several research perspectives such as material cycles, migration influences, ecosystem and landscape development. In parallel to the research, URA initiates co-visioning processes in which the project team works with local stakeholders to co-create spatial visions and transformation pathways to strengthen urban-rural integration, based on the research findings. The three main objectives of URA are to understand urban-rural interdependencies, to develop community-led strategies to strengthen urban-rural integration, and to develop multi-level governance tools for local communities. Adaptations during pandemic restrictions led URA to include Nordhausen in Thuringia as a case study, with workshops serving as an initial testing ground and comparative case study.

URA's interdisciplinary research addresses the uneven economic, social and environmental development of the rapid urbanisation of the Huangyan-Taizhou urban-rural region. It uses this region as a research laboratory, specifically studying Beyiang Town and Xinqian Neighbourhood as living laboratories. Working with academic and non-academic partners from Germany and China, the project uses an inter- and transdisciplinary approach to strengthen urban-rural linkages through the development and implementation of actor-based transformation strategies and pathways. These strategies aim to reduce socio-economic polarisation and to strengthen climate resilience through sustainable transformation pathways that strengthen circular economy, social justice and safeguard ecosystem services.

For the participatory development of transformation strategies, URA has introduced a collaborative methodology known as 'Urban-Rural Co-Visioning', based on successful territorial visioning processes such as 'Raumbild' in Germany. URA implemented this methodology in the study region by organising a series of multi-stakeholder workshops. For each workshop, the team developed specific participatory and interactive workshop formats to foster the co-creative strategy process between researchers and local stakeholders, validate and complement research findings, identify key challenges and potentials for a climate-resilient regional transformation, define sustainable development goals and outline transformation pathways.

At the end of the project, the methods used will be evaluated and summarised in a toolbox that will help actors in other urban-rural regions to shape these regions together in a sustainable way. To this end, the project, in cooperation with ICLEI and UN-Habitat, promotes communication between researchers and policymakers and influences policy through initiatives such as an UN-Habitat policy paper.

» Urban-Rural Co-Visioning: How to Shape Regional Futures Together. «

Impacts

- Collaborative development and implementation of regional transformation strategies that enhance climate resilience, regional circular economies and social just through urban-rural integration in Huangyan-Taizhou.
- Contribution to the urgent need for creative approaches towards localisation and implementation of the Sustainable Development Goals (SDGs) of the United Nations, the New Urban Agenda in China, and beyond.

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www.urbanruralassembly.com/en

URBAN – RURAL ASSEMBLY

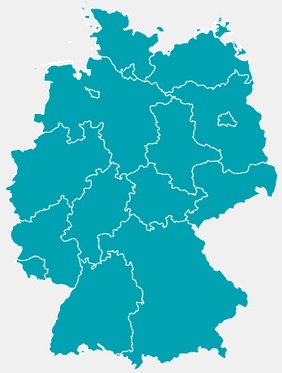
R&D Phase – Project Duration
12/2020 – 05/2025

German Partners
- Technische Universität Berlin
- The Bauhaus-Universität Weimar
- Leibniz Institute of Ecological Urban and Regional Development

Asian Partners
www.sustainable-urban-regions.org/project/ura

Selected Publications
- Hagemann A. et al. (2025). Urban-Rural Assembly. A Handbook for Co-Visioning Interconnected Regions. JOVIS.
- Langner S. et al. (2025). Between Land and Water. Narratives of Water-Based Rurban Landscape, JOVIS.

Looking into the Future
- Deepening the strategies for urban-rural integration in the Huangyan-Taizhou study region and developing pilot projects and action plans for implementation.
- Developing a toolbox for the transferability of the methods to strengthen urban-rural integration in other region in China and beyond.



SURE & Facilitation Synthesis Research

R&D Phase – Project Duration
09/2020 – 08/2025

German Partners
- HafenCity University Hamburg
- Technische Hochschule Lübeck
- TÜV Rheinland Forschungs- und Innovationsmanagement GmbH

Selected Publications
- Noennig, J. R. et al. (2024): SURE Solutions 1st Volume: Transdisciplinary Challenges in Sustainable Development of Urban Regions. HafenCity Universität Hamburg
- Slawski, A., Schwartze, F. and Dietrich, K. M. (2022). Transdisciplinary Synthesis Research. Challenges and Approaches of Impact-oriented Urban and Spatial Research. WhatNext Article

Looking into the Future
- Publication of the second volume of 'SURE Solutions'.
- Publication of the SURE Playbook with approaches, cases and tools for a reflective practice.

Facilitation & Synthesis Research for the SURE Funding Priority

The SURE Funding Priority is accompanied by a Facilitation and Synthesis Research project (F&SR) that provides both scientific and organisational backing to the overarching Funding Priority and the individual funded projects. The facilitation activities foster synergies through activities and events with and for the project community as well as the promotion of knowledge to a diverse group of stakeholders. Additionally, synthesis integrates findings across projects and analyses the collective impact of SURE on sustainable urban development. Moreover, SURE F&SR addresses the challenges of applied sustainability research in the complex context of urban development, transdisciplinary and transnational settings.

Main Results

The F&SR team facilitates collaborative ventures and hosts pivotal events in Germany and Asia to foster networking and the exchange of ideas. A series of synergy workshops offers expert insights on selected topics, produces joint outputs, and stimulates cross-project collaboration. The F&SR team, in partnership with SURE projects, showcases outcomes at major international conferences amplifying the impact of SURE's achievements on a global stage.

The SURE F&SR uses meta-analysis to systematically integrate quantitative and qualitative findings from ten transdisciplinary projects, revealing trends, challenges, and successes in bridging diverse academic disciplines and stakeholder perspectives. To establish common ground for these research activities, six Focus Topics that reflect each project's thematic focus and facilitate cross-project exchanges were identified. Through systematic project analysis, Cross-Cutting Issues that highlight the challenges of transdisciplinary research in cross-cultural settings were identified, enabling ongoing dialogue on addressing these issues in both practical and academic contexts. In addition, problem and solution patterns for sustainable urban development in Southeast Asia and China were synthesised. To advance this collaborative process, the SURE Atlas was developed as a resource for researchers, practitioners, decision-makers, and the broader public – boosting knowledge accessibility and fostering ongoing progress within the SURE community. The Atlas' core functionalities allow an in-depth exploration of the SURE projects like:

» Advancing Transdisciplinary Research and Impact Monitoring in Sustainable Urban Development. «

- Cross-Sectional Analysis of sustainable urban development highlighting key performance indicators, transdisciplinary principles, Sustainable Development Goals and innovative products and results.
- Assessing impact with tools developed for self-reflection viz, Reflection Toolbox and overall impact of projects with the reference picture/playbook.
- Exploring and accessing the expertise of researchers and projects through the stakeholder network tool.

The SURE Atlas streamlines essential data and insights – making it easier to monitor progress, compare results, and demonstrate the collective impact of SURE's collaborative efforts.

Another key result is the publication series 'SURE Solutions', which creates an understanding how the notion of sustainable development of urban regions is understood, reflected on, and applied in the local contexts of South-East Asia. Co-authorships with local implementation partners are strongly encouraged and serve as a key editorial criterion in formats e.g. research paper, activity report, snapshot or news.

To monitor the impact of the Funding Priority, the SURE Framework was developed which was designed to address the unique challenges of impact-oriented monitoring in transnational, transdisciplinary, and action-oriented urban research. The proposed monitoring framework operates as an iterative learning system, promoting reflection and continuous adaptation, while adhering to a cyclical planning logic. It contains the self-set references serving as benchmarks and a culture of reflection that is integrated into the project work, allowing for flexibility and adjustments throughout the process. Developed and tested within the SURE Funding Priority, this approach provides a starting point and a set of tools for impact-oriented monitoring in transdisciplinary projects. It can be adapted to fit specific project contexts and evolving practical conditions.

Impacts

- Contribution to transdisciplinary research and innovation for sustainable urban development through robust knowledge-transfer strategies and activities.
- Expansion of the communication network to external stakeholders, allowing for generation of new ideas and stronger impact through dissemination of results.
- Creation of new cooperation, extending beyond projects durations.

Scan or Click for more!
www.sustainable-urban-regions.org/about-us/facilitation-and-synthesis-research/

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