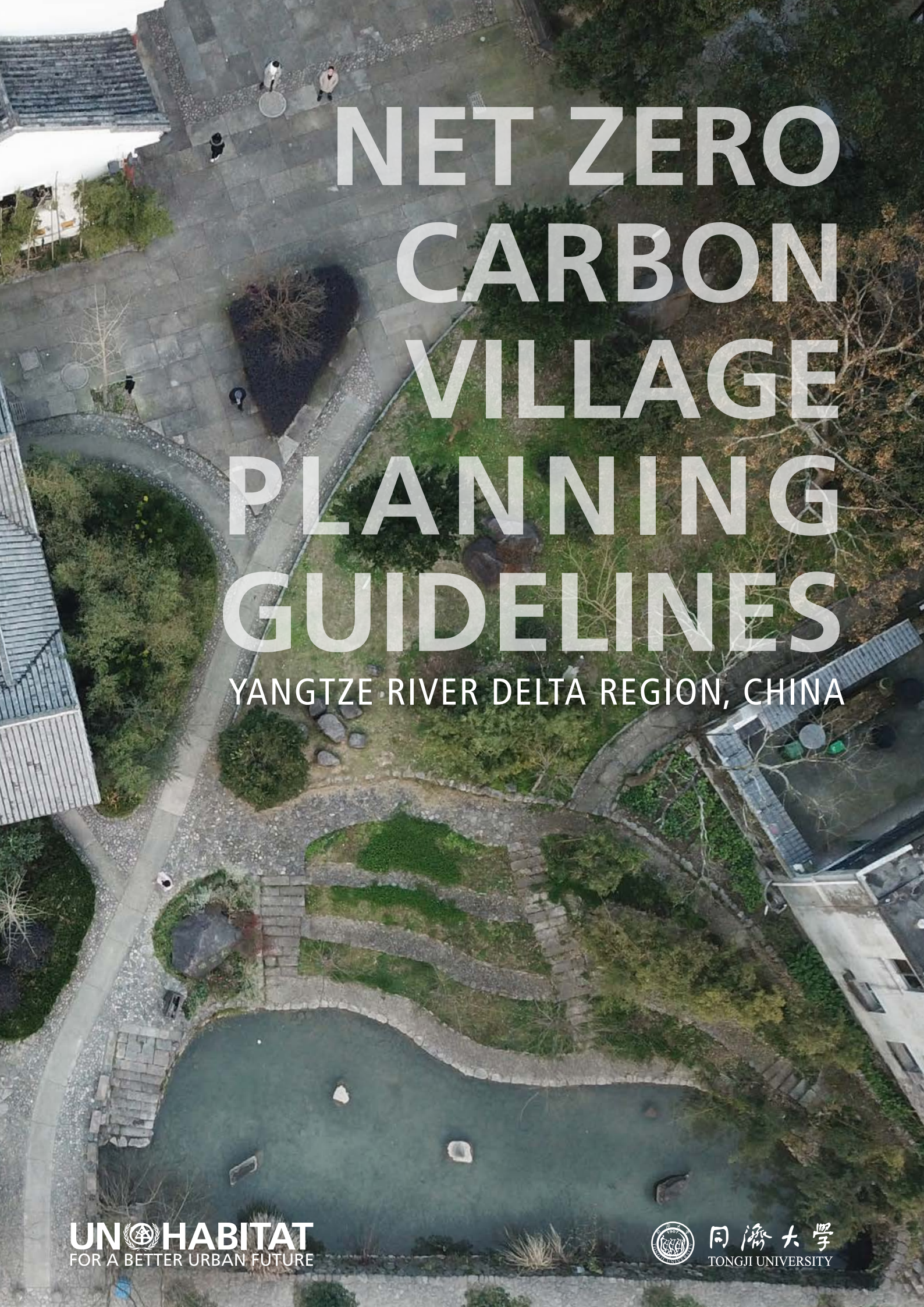




NET ZERO CARBON VILLAGE PLANNING GUIDELINES

YANGTZE RIVER DELTA REGION, CHINA

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Net Zero Carbon Village Planning Guidelines
For the Yangtze River Delta Region in China

1st Edition
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This report has been prepared by UN-Habitat's Urban Lab in collaboration with Tongji University. The Lab is UN-Habitat's multidisciplinary facility supporting cities and Member States with innovative methodologies and multi-stakeholder processes. The Lab aims to achieve sustainable urbanization through integrated and transformative urban interventions that contribute to the implementation of the 2030 Agenda for Sustainable Development.

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Foreword

In recent years, the Yangtze River Delta (YRD) region in eastern China has become a strategic focus of environmental protection and eco-development efforts. The region is facing unprecedented risk to its natural and urban environments. The inherent vulnerability of this highly valued eco-system and agricultural area due to the large concentration of neighbouring metropolitan areas, economically strategic position along major shipping lanes and manufacturing hubs as well as the interlinked conflict between social and economic development and environmental conservation, needs to be addressed. These conditions make it, with time, increasingly harder to govern urban and rural settlements resulting in lost opportunities for sound economic growth that respects strong ecological balance.

This challenging context is not only relevant to the YRD region but also to other Chinese and international regions where connectivity could be enhanced through rural and urban linkages. This is especially pertinent since 2007, when more than half of the world's population lives in cities, and in relation to China's substantial work in promoting eco-cities. In addition to this, following more than two decades of urban expansion, there is a renewed focus in China to address the status quo where rapid economic growth was prioritised at the expense of land and environmental resources and a growing inequality between rural and urban areas. It is under this perspective that there is a growing need to propose methodologies to establish a more balanced urban-rural relationship.

The 2030 Agenda for Sustainable Development outlines sustainable development as a process in harmony with people, planet, prosperity, peace and partnership, not driven by isolated actions. This is well reflected in the New Urban Agenda (NUA) which translates the Sustainable Development Goals (SDGs) into practice regarding areas of human settlements, urban planning, at its many levels and scales including planning of peri-urban and urban/rural settlements. This is a vital tool that

can integrate multiple complexities to guide settlement growth in a way that promotes inclusive, integrated and sustainable development.

For more than forty years, UN-Habitat has supported countries worldwide to develop urban planning methodologies and strategies to address current urbanization challenges such as population growth, urban sprawl, poverty, inequality, pollution, and climate change at national, city and neighbourhood level, including urban-rural linkages. It is for this reason that UN-Habitat and Tongji University have collaborated to produce guidelines on net-zero carbon strategies for the development of villages in the Yangtze River Delta. The research is part of a wider project in partnership with the Shanghai Municipal Government as well as Shanghai Research Institute of Building Sciences and Shanghai Academy of Environmental Sciences working on technological and scientific dimensions of zero carbon solutions and coordinated by Tongji University.

The overall project analyzes and defines the structuring elements of zero carbon settlements, illustrating development strategies for planning, implementing and managing energy and resource efficient urban-rural areas. The project aims to develop a holistic approach where urban planning will be the tool that brings together climatic conditions, land use, local economies, renewable use of energy, zero-waste, water cycles, biodiversity, and transport, to achieve a sustainable low carbon settlement system. These guidelines have a two-fold objective. On the one hand, the guidelines can be used to help standardize and codify ecological planning principles for villages in the Yangtze River Delta and on the other they can set an example of zero carbon planning strategies that can be escalated and replicated in other relevant towns at the national and international level.

The project responds to UN-Habitat's mandate of promoting socially and environmentally sustainable

towns and cities, while addressing the New Urban Agenda through the implementation of the 2030 Sustainable Development Goals (SDGs). The project primarily contributes to the progressive achievement of Target Goal 11 “Sustainable Cities and Communities”, and Target Goal 13 on “Climate Action”, Goal 6 “Ensure availability and sustainable management of water and sanitation for all” and Goal 7 “Ensure access to affordable, reliable, sustainable and modern energy for all”, with reference to the following:

7.2: By 2030, increase substantially the share of renewable energy in the global energy mix;

7.3: By 2030, double the global rate of improvement in energy efficiency;

11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management;

11.A: Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning;

13.2: Integrate climate change measures into national policies, strategies and planning;

13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

Maimunah Modh Sharif

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