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**Sustainable City 2022**

# The Sustainable City XVI

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# The Sustainable City XVI

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## Preface

The present volume contains a selection of the papers presented at the 16<sup>th</sup> International Conference on Urban Regeneration and Sustainability (Sustainable City 2022), organised by the Wessex Institute of Technology. This conference was originally scheduled to take place in Rome, in Italy, but subsequently had to be held online due to political and military situation in Europe and some remaining steps of the COVID-19 pandemic.

Sustainable City 2022 follows a series of very successful meetings that started in Rio (2000), followed by Segovia (2002), Siena (2004), Tallinn (2006), Skiathos (2008), A Coruña (2010), Ancona (2012), Kuala Lumpur (2013), Siena (2014), Medellin (2015), Alicante (2016), Seville (2017) and Valencia (2019). Editions of 2020 and 2021 was programmed in Rome and Bilbao respectively but took place online due to the difficulties and prohibitions for travelling generated by the pandemic. Nevertheless, both the in person and the online version of the events have attracted a large number of delegates as well as papers and presentations of high quality; this testifies to the worldwide interest in and success of the conference series.

Urban areas result in a series of environmental challenges varying from the consumption of natural resources and the subsequent generation of waste and pollution, contributing to the development of social and economic imbalances. According to current trends, the population is concentrating in urban areas that continue to grow all over the world. Old and new problems tend to become more acute and require the development of innovative solutions to create liveable urban areas without endangering our common future.

The task of researchers is to improve the capacity to manage human activities, pursuing welfare and prosperity in the urban environment. Any investigation or planning in a city ought to consider the relationships between the parts and their connections with the living world. The dynamics of its networks (flows of energy-matter, people, goods, information and other resources) are fundamental for an understanding of the evolving nature of today's cities.

Coastal areas and coastal cities are an important issue at the conference as they have some specific features. Their strategic location facilitates transportation and the development of related activities, but this requires the existence of large ports, with the corresponding increase in maritime and road traffic and all of the inherent negative effects, and can be directly affected by the rise in sea level. This requires the development of well-planned and managed urban environments, not only for

reasons of efficiency and economics but also to avoid inflicting environmental degradation that causes the deterioration of natural resources, quality of life and human health.

Urban agriculture and food sovereignty are crucial issues that have been included in the conference due to their impact on city life. The scale of modern food production has created and exacerbated many vulnerabilities and the feeding of cities is now infinitely more complex. In the last few years, there has been a rapid expansion in initiatives and projects exploring innovative methods and processes for sustainable food production. The majority of these projects are focused on providing alternative models that shift the power back from the global food system to communities and farmers improving social cohesion, health and wellbeing. These initiatives have demonstrated that urban agriculture has the potential to transform our living environment towards ecologically sustainable and healthy cities.

Large cities represent a fertile ground for architects, engineers, city planners, social and political scientists, and other professionals able to conceive new ideas and time them according to technological advances and human requirements. Their works are essential in order to help public policies progress and become more committed to environmental challenges.

The contents of the book corresponds to a very wide ranges of topics, among them: Architectural issues, environmental management, planning for risk, climate change and natural hazards, the community and the city, urban transportation and planning, energy conversion and generation, urban agriculture and food sovereignty, city/waterfront interaction, waste management, cultural heritage sites and urban and rural areas. So it supposes an important addition to the scientific literature in this field.

For this reason, the papers contained in this book, as well as those from previous conferences since 2000, have been archived in the eLibrary of the Wessex Institute (<http://www.witpress.com/elibrary>) where they are permanently accessible to the international scientific community.

The editors wishes to acknowledge the support of the authors, the members of the International Scientific Advisory Committee (ISAC), the referees, Marta Graczyk, the conference co-ordinator, as well as the WIT Press staff and Isabelle Rham, in particular.

Finally, the editors and ISAC members wish to honour the memory of the late Professor Carlos Brebbia, founder of Wessex Institute, who established this series of meetings having foreseeing its impact and appeal.

The Editors, 2022

# Contents

## Section 1: Architectural issues

Creating inclusive commercial spaces for women in Bahrain <i>Khadija Hassouna &amp; Reem Sultan</i> .....	3
Smart materials and adaptive building envelopes as an approach for reducing energy consumption in Egypt: A literature review <i>Samar Awad Abdelhamed Soliman, Ibrahim Elsayed Maarouf Ibrahim &amp; Mai Mohamed Abdo Ibrahim</i> .....	13
Will biophilic design become another checklist? <i>Toufic Haidamous</i> .....	27
Classification of photovoltaics in buildings (BAPV and BIPV): Illustrated with zero-energy houses <i>Edwin Rodriguez-Ubinas, Esra Trepc &amp; Noura Alhammadi</i> .....	37

## Section 2: Environmental management

Building sustainability assessment based on materials used: Case studies in Lisbon, Portugal <i>Jorge T. Ribeiro &amp; Ana Barreto</i> .....	53
Clogging of honeycomb catalysts during stove operations <i>Jiří Ryšavý, Martin Garba, Tereza Kaszová, Izabela Šudrychová &amp; Jiří Horák</i> .....	67
Bibliographic review of water sustainability assessment in Central America <i>Lucila Chang-Fossatti &amp; Nathalia Tejedor-Flores</i> .....	79
Environmental management of oil exploration in the Niger Delta towards sustainable city: The Nigeria case in <i>Oil at My Backyard</i> <i>Alexander A. Onwumere</i> .....	91

### **Section 3: Planning for risk, climate change and natural hazards**

Management and control tool for health emergencies in the urban environment <i>Mario Rainaldi</i> .....	101
Optimising stakeholder cooperation in infrastructure development <i>Jeremiah Mutamba</i> .....	113
New green infrastructure for European cities: Multiple ways for improvement and climate change adaptation <i>Alice Wanner, Ulrike Pröbstl-Haider &amp; Magdalena Feilhammer</i> .....	121
Effective urban climate adaptation in the global south? Governance lessons from Lilongwe city, Malawi <i>Josephine Marion Zimba</i> .....	135
Planning for natural hazards: An integrated approach into urban risk assessments – A perspective on settlements located in high-risk areas in Maseru, Lesotho <i>Ramapulane Mphanya, Trynos Gumbo &amp; George Onatu</i> .....	147

### **Section 4: The community and the city**

Motivation to active participation in a collective: Potentials of an emerging housing cooperative in Freiburg, Germany <i>Udo Dietrich</i> .....	159
Public space and environmental behaviour: Weekly markets in Hamburg, Germany <i>Marina Montelongo</i> .....	171
Local creatives sustaining small communities <i>Andra Camelia Clițan &amp; Andreea Sandu</i> .....	191
Designing “clouds” for a flexible use of educational space: Research and didactic experimentation for public engagement in the post-pandemic era <i>Daniela Ladiana, Piero Rovigatti &amp; Camilo Andres Cifuentes Quin</i> .....	203

### **Section 5: Urban transportation and planning**

Exploring the link between travel behaviour and sustainable mobility <i>Hoda Pourramazani &amp; Jose Luis Miralles-Garcia</i> .....	217
Towards sustainable urban transportation planning in developing countries: “DRT” mobile apps as a catalyst for big data-based decision support system <i>Abdel Rahman Ragheb, Mai Abdo &amp; Khalid S. Al-Hagla</i> .....	229



Beyond growth: A study on the transformation of urban renewal governance in the Southern Part of the Old City of Nanjing, China, based on the urban regime theory <i>Yu Gao, Jingxiang Zhang &amp; Hao Chen</i> .....	243
--	-----

Universal design approach to a smart, sustainable, safe, and accessible city for all <i>Nehad Shabban Abdelaleem Abdelmaksoud</i> .....	259
--	-----

## **Section 6: Energy conversion and generation**

Disposal of pyrolysis residue by incineration <i>Marek Jadlovec, Jakub Čespiva, Jan Výtisk, Stanislav Honus &amp; Tadeáš Ochodek</i> .....	273
---	-----

Evaluation and safety assessment of biomass-/waste-generated producer gas <i>Jakub Čespiva, Jan Skřinský, Ján Vereš, Marek Jadlovec, Jan Výtisk, Tadeáš Ochodek &amp; Stanislav Honus</i> .....	281
--	-----

Composite indicators for assessing the carbon emission reduction on bio-eco-resilience of residential buildings <i>Sara H. Aboubakr, Amira A. Fathi &amp; Ali Fouad Bakr</i> .....	289
---	-----

Recent review of energy conservation plans and targets in the Gulf Cooperation Council region: Barriers and challenges <i>Marwa Elbannan, Ibrahim Maarouf &amp; Mai Abdo</i> .....	299
---	-----

## **Section 7: Urban agriculture and food sovereignty**

Urban agriculture and food sovereignty in Latin America: Examples of nutritious diets <i>Isabel Maria Madaleno</i> .....	315
---	-----

Review of the effect of commercial farm expropriation on the food retail sector in South Africa <i>Alfred A. Faul &amp; Chris E. Cloete</i> .....	327
--	-----

Current situation of stakeholders' characteristics in Chu-mango supply chain <i>Kiet Hong Vo Tuan Truong &amp; Shaufique Fahmi Sidique</i> .....	341
---	-----

## **Section 8: City/waterfront interaction**

Digital twin model for zero-energy districts: The case study of Anzio Port, Italy <i>Sofia Agostinelli</i> .....	357
---	-----

Reinventing the image of cities using the element of water:  
International case studies of waterfront urban developments  
*Rachida Benabbou, Yann Hui, Emma Roberts & Jiang Jiang Shao* ..... 365

Index of vulnerability to pollution of karstic coastal aquifers:  
Analysis of factors for the urban zone of Playa Del Carmen, Mexico  
*Wilbert D. Uhu Yam, Oscar Frausto-Martinez, José F. Rodríguez Castillo  
& Orlando Colín Olivares*..... 379

Municipal coastal governance in Latvia:  
Non-statutory instruments for collaborative governance development  
*Raimonds Ernsteins, Erika Lagzdina, Ivars Kudrenickis & Janis Kaulins* ..... 391

## **Section 9: Waste management**

Municipal solid waste generation:  
An exploratory analysis of consumption patterns in Peru  
*Luis Izquierdo-Horna & Dáneri Camacho-Castañeda* ..... 405

Analysis of waste volume and type generated in O.R. Tambo  
district municipality, South Africa  
*Nelisa Tembani, Motebang D. V. Nakin, Zandy Magayiyana  
& Asabongo Mngeni*..... 415

## **Section 10: Cultural heritage sites**

Urban morphology and industrial heritage persistence  
*Alejandro Acosta Collazo*..... 427

Towards a creative sustainable future for heritage destinations:  
A case study of Luxor, Egypt  
*Dalia F. Amara*..... 437

Environmentally responsive design in British colonial architecture  
within the Mediterranean basin: The case of the Presidential Palace  
of Cyprus  
*Eirini Kyritsi, Andreas Kyriakides, Aimilios Michael, Maria Philokyprou,  
Andreas Savvides & Apostolos Michopoulos* ..... 451

Methodological approach to incorporating Hausa traditional architecture  
in urban development: The case of Abuja, Nigeria  
*Tanimu A. J. Noma, Ali F. Bakr & Zayed M. Elsayad*..... 465

Towards sustainable heritage conservation in Egypt: A detailed analysis  
for identifying the values used in selecting heritage buildings  
*Nagham A. Elshazly, Dina M. Nassar & Zeyad El-Sayad*..... 477

## **Section 11: Urban and rural areas**

Future of dwelling: Indoor plants and produce <i>Camilo Cerro</i> .....	493
Evolution mechanism, history and characteristics of China's rural areas since the reform and opening-up <i>Wu Junbo</i> .....	503
Sustainable habitat: Literature review and insights <i>Senda Fendri</i> .....	513
Using circular economy business models and life cycle assessment to improve the sustainability of elevators <i>Marco Tomatis, Christian Kukura, Siniša Djurović, Judith Apsley, David Griffin, Jordan Griffin, Rob Corner &amp; Laurence Stamford</i> .....	525
<b>Author index</b> .....	535