

TeMA

Journal of
Land Use, Mobility and Environment

The 10th volume of the TeMA Journal will promote the debate on the definition and the implementation of methods, tools and best practices aimed at improving energy efficiency at the neighbourhood level while increasing the capacity of urban systems to adapt to natural changes and/or man-made changes.

Tema is the Journal of Land use, Mobility and Environment and offers papers with a unified approach to planning and mobility. TeMA Journal has also received the Sparc Europe Seal of Open Access Journals released by Scholarly Publishing and Academic Resources Coalition (SPARC Europe) and the Directory of Open Access Journals (DOAJ).



METHODS, TOOLS AND BEST PRACTICES TO INCREASE THE CAPACITY OF URBAN SYSTEMS TO ADAPT TO NATURAL AND MAN-MADE CHANGES

METHODS, TOOLS AND BEST PRACTICES TO INCREASE THE CAPACITY OF URBAN SYSTEMS TO ADAPT TO NATURAL AND MAN-MADE CHANGES

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TeMA. Journal of Land Use, Mobility and Environment offers researches, applications and contributions with a unified approach to planning and mobility and publishes original inter-disciplinary papers on the interaction of transport, land use and environment. Domains include: engineering, planning, modeling, behavior, economics, geography, regional science, sociology, architecture and design, network science and complex systems.

The Italian *National Agency for the Evaluation of Universities and Research Institutes* (ANVUR) classified TeMA as scientific journal in the Area 08. TeMA has also received the *Sparc Europe Seal for Open Access Journals* released by *Scholarly Publishing and Academic Resources Coalition* (SPARC Europe) and the *Directory of Open Access Journals* (DOAJ). TeMA is published under a Creative Commons Attribution 3.0 License and is blind peer reviewed at least by two referees selected among high-profile scientists. TeMA has been published since 2007 and is indexed in the main bibliographical databases and it is present in the catalogues of hundreds of academic and research libraries worldwide.

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CALL FOR PAPERS: TEMA VOL. 11 (2018)

The Resilience City/The Fragile City. Methods, tools and best practices.

The fragile/resilience city represents a topic that collects itself all the issues related to the urban risks and referred to the different impacts that an urban system has to face with. Studies useful to improve the urban conditions of resilience (physical, environmental, economical, social) are particularly welcome. Main topics to consider could be issues of water, soil, energy, etc.. The identification of urban fragilities could represent a new first step in order to develop and to propose methodological and operative innovations for the planning and the management of the urban and territorial transformations.

The Journal also welcomes contributions that strategically address the following issues:

- new consideration of the planning standards, blue and green networks as a way to mitigate urban risks and increase city resilience;
- the territorial risks and fragilities related to mobility of people, goods, knowledge, etc.;
- the housing issue and the need of urban regeneration of the built heritage;
- socio-economical behaviour and the "dilemma" about emergency and prevention economy;
- the city as magnet of the next future's flows (tourism, culture, economy, migration, etc.).

Publishing frequency is four monthly. For this reason, authors interested in submitting manuscripts addressing the aforementioned issues may consider the following deadlines

- first issue: 10th January 2018;
- second issue: 10th April 2018;
- third issue: 10th September 2018.

CALL FOR PAPERS: GENERAL CALL.

Papers in Transport, Land Use and Environment

The Journal welcomes papers on topics at the interdisciplinary intersection of transport and land use, including research from the domains of engineering, planning, modeling, behavior, economics, geography, regional science, sociology, architecture and design, network science, and complex systems

CALL FOR PAPERS: SPECIAL ISSUE 2018

Urban Travel Behavior in the Middle East and North Africa

The characteristics of urban travel behaviors and the attitudes of passengers in the Middle East and North Africa (MENA) is less-studied. When it comes to the effects of urban form, residential self-selections, and lifestyles, it is entirely not investigated in majority of the countries of the region. There is a considerable knowledge gap about the circumstances of how people think and decide about their short-term, medium-term, and long-term mobility for commute and non-commute travels. The we do not know if the land use traits such as population and employment densities as well as mix of land uses, accessibility to public transportation and neighborhood amenities, and connectivity of street networks are as influential as they are in western counties or in higher income societies. There is a very limited understanding about the extent to which the personal preferences, lifestyles, and in general psychology of the people of the region affect their transport behaviors. The complexity of the analysis methods applied for studying urban travel phenomena of the MENA region is even less-developed. Longitudinal or discrete choice molding methods are applied in mobility research considerably less than studies coming from high-income countries.

This special issue collects the results of some of the most-recent studies on the MENA countries to fill out a part of the gap in English-language publications. The main topics covered by the issue include the following with focus on the MENA region:

- The role of urban form and land use in forming urban travel behavior;
- Urban sprawl and urban travel behavior;
- The effects of historical urban transformations on urban mobility decisions;
- Car ownership and use; car dependency;
- The impacts of socioeconomics and culture in forming the transport patterns;
- Lifestyles and personal preferences and urban travels; Perceptions of mobility, safety, security, neighborhoods;
- The interactions of travel behavior and health effects of different ages, genders, and income groups;
- Travel behavior of public transport riders;
- and similar topics.

The target countries of this issue are the ones that are referred to as the MENA counties in most of the definitions. Studies on the cities of Turkey and Pakistan are also of particular interest and welcome. Manuscripts about all city sizes are reflected by the issue. The authors interested in submitting manuscripts addressing the aforementioned issues may consider the deadline of 31st January 2018. All submissions will go through rigorous double-blind review, and if accepted will be published. Interested authors are requested to contact Houshmand Masoumi at masoumi@ztg.tu-berlin.de, to discuss submission and review procedure.

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REVIEWS PAGES

METHODS, TOOLS AND BEST PRACTICES TO INCREASE THE CAPACITY OF URBAN SYSTEMS TO ADAPT TO NATURAL AND MAN-MADE CHANGES 3(2017)

Starting from the relationship between urban planning and mobility management, TeMA has gradually expanded the view of the covered topics, always remaining in the groove of rigorous scientific in-depth analysis. During the last two years a particular attention has been paid on the Smart Cities theme and on the different meanings that come with it. The last section of the journal is formed by the Review Pages. They have different aims: to inform on the problems, trends and evolutionary processes; to investigate on the paths by highlighting the advanced relationships among apparently distant disciplinary fields; to explore the interaction's areas, experiences and potential applications; to underline interactions, disciplinary developments but also, if present, defeats and setbacks.

Inside the journal the Review Pages have the task of stimulating as much as possible the circulation of ideas and the discovery of new points of view. For this reason the section is founded on a series of basic's references, required for the identification of new and more advanced interactions. These references are the research, the planning acts, the actions and the applications, analysed and investigated both for their ability to give a systematic response to questions concerning the urban and territorial planning, and for their attention to aspects such as the environmental sustainability and the innovation in the practices. For this purpose the Review Pages are formed by five sections (Web Resources; Books; Laws; Urban Practices; News and Events), each of which examines a specific aspect of the broader information storage of interest for TeMA.

01_WEB RESOURCES

The web report offers the readers web pages which are directly connected with the issue theme.

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02_BOOKS

The books review suggests brand new publications related with the theme of the journal number.

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03_URBAN PRACTICES

Urban practices describes the most innovative application in practice of the journal theme.

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04_NEWS AND EVENTS

News and events section keeps the readers up-to-date on congresses, events and exhibition related to the journal theme.

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评述页：

提高城市系统对自然及人为变化顺应能力的方法、 工具和最佳实践

TeMA 从城市规划和流动性管理之间的关系入手，将涉及的论题逐步展开，并始终保持科学严谨的态度进行深入分析。在过去两年中，智能城市（Smart Cities）课题和随之而来的不同含义一直受到特别关注。

学报的最后部分是评述页（Review Pages）。这些评述页具有不同的目的：表明问题、趋势和演进过程；通过突出貌似不相关的学科领域之间的深度关系对途径进行调查；探索交互作用的领域、经验和潜在应用；强调交互作用、学科发展、同时还包括失败和挫折（如果存在的话）。

评述页在学报中的任务是，尽可能地促进观点的不断传播并激发新视角。因此，该部分主要是一些基本参考文献，这些是鉴别新的和更加深入的交互作用所必需的。这些参考文献包括研究、规划法规、行动和应用，它们均已经过分析和探讨，能够对与城市和国土规划有关的问题作出有系统的响应，同时还对诸如环境可持续性和在实践中创新等方面有所注重。因，评述页由五个部分组成（网络资源、书籍、法律、城市实务、新闻和事件），每个部分负责核查 TeMA 所关心的海量信息存储的一个具体方面。

01_WEB RESOURCES

网站报告为读者提供与主题直接相关的网页。

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02_BOOKS

书评推荐与期刊该期主题相关的最新出版著作。

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03_URBAN PRACTICES

城市的实践描述了期刊主题在实践中最具创新性的应用。

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04_NEWS AND EVENTS

新闻与活动部分让读者了解与期刊主题相关的会议、活动及展览。

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METHODS, TOOLS AND BEST PRACTICES TO INCREASE THE CAPACITY OF URBAN SYSTEMS TO ADAPT TO NATURAL AND MAN-MADE CHANGES 3(2017)

REVIEW PAGES: WEB RESOURCES

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In this number

NEW PRACTICES AND EXPERIENCES FOR PLANNING THE RESILIENT CITY

Nowadays cities have to face several challenges, not only connected to potential shocks like floodings, heatwaves and earthquakes, but also related to daily stresses such economic and social inequality, crime, inefficiencies of public transportation, noise and environmental pollution, and so on. Hence, cities need to change their structures and design in order to improve their capacities to deal with those issues. In the last thirty years, urban planning has adopted concepts like Sustainable Development and Smart City (Morelli et al., 2013), aimed at defining solutions for solving the main urban issues and in order to plan more efficient and livable cities. More recently, a new reference concept is arisen, namely the Resilient City. Even if it has been defined in different ways, the Resilient City concept has several overlapping elements with the Sustainable Development and the Smart City, starting from its purpose that can include the purposes of the other two concepts (Arafah and Winarso, 2017; Hudec, 2017). Indeed, the Resilient City concept aims at growing the capacity of an urban system to deal with social, economic and physical challenges of the 21st century (100 Resilient Cities, 2017). In operational terms, the urban practices and experiences for developing resilient cities are fragmentary (Papa et al., 2015). Indeed, cities are investing in urban strategy for improving their resilience. Moreover, in the last year, several governance networks for making cities more resilient have been developed, mainly with the aim of addressing cities in the definition of resilience strategies. Since each city presents its own urban issues, each city defines a specific resilience strategy. This is due also to the lack of a shared definition of “resilience”. In accordance with this perspective, resilience could become a label to use in urban planning for defining an all-inclusive approach for facing the several challenges of the contemporary cities. Therefore, this section will illustrate websites of three cities - New Orleans, New York and Ho Chi Minh - that are investing in the enhancing of their urban resilience. In particular, those websites were created to illustrate strategies and actions that those cities are implementing to enhance their capacities not only to deal with climate change impacts but also with economic and social urban issues. The first website is RESILIENT NEW ORLEANS, developed by the City of New Orleans. It aims at illustrating and disseminating the ‘Resilient New Orleans’ strategy and its results. The second one is OneNYC that is the website of the strategic plan of New York City, called ‘OneNYC - Plan for a Strong and Just City’. The last website is developed by the Vietnam Climate Adaptation Partnership (VCAPS) and it illustrates all the results achieved by this partnership, such as also the Ho Chi Minh City’s Climate Adaptation Strategy.



RESILIENT NEW ORLEANS is the website developed by the City of New Orleans in order to illustrate the urban strategy adopted by New Orleans in August 2015, named *Resilient New Orleans*.

The *Resilient New Orleans* strategy is one of the last steps of the City of New Orleans adopted for improving its capacity to deal with current challenges, such as climate change. Indeed, after the Hurricane Katrina that in 2005 devastated the Gulf Coast of the city, New Orleans started to invest in several initiatives among which there is the definition of the Greater New Orleans Urban Water Plan (2013) for a more resilient urban development of the city.

Through the *Resilient New Orleans* the city is proposing pragmatic actions to set forth aspirations for the city that are:

- (i) adapting the city to changing natural environment;
- (ii) investing in equity;
- (iii) creating flexible and reliable systems;
- (iv) preparing for future shocks.

This strategy is the results of the combination of local expertise with global best practices, also the participation of the City of New Orleans to the network “100 Resilient Cities”.

Finally, the strategy will be implemented through the coordination of the Mayor’s Office of Resilience and Sustainability and the Chief Resilience Officer among partners and agencies and for integrating resilience in regulations, policies and practices, the Resilience Office will collaborate with the City Planning Commission and Hazard Mitigation Office to develop Master Plan and Hazard Mitigation Plan.

In relation to the contents of the strategy, the website is organized into five sections: *Intro*, *Visions*, *About*, *Get Involved* and *Voices*.

The *Intro* section corresponds to the website’s homepage and illustrates the three visions for 2050 of New Orleans that are:

- Adapt to Thrive,
- Connect to Opportunity and
- Transform City Systems.

Indeed, these three visions are better illustrated in the *Visions* section. In detail, each vision is synthetically described in a specific webpage through the definition of the main initiatives to implement.

In the *About* webpage, a description of the strategy and its implementation are reported. Moreover, in the page partners involved in the strategy and in the 100 Resilient Cities network are reported.

In the *Get Involved* section users’ website can put their own information - first name, last name, email and ZIP code – in order to receive information on the strategy. Moreover, for downloading the strategy, users can access the 100 Resilient Cities website in order to find out about other cities like New Orleans, involved in the 100 Resilient Cities network.

The *Voices* section illustrated ‘Stories of Resilience’ that tell about initiatives and actions implemented in New Orleans and oriented to a resilient development.

In all the sections at the bottom of the page, it is possible to link to the *About* section clicking on *About Resilient New Orleans*, to *Get Involved* through *Contact* and, to *Download the Strategy*, and finally to connect to social media such as YouTube, Facebook and Instagram.

Furthermore, under the section board, there is a string that permits to visualize videos on YouTube.

OneNYC ONENYC – THE PLAN FOR A STRONG AND JUST CITY <https://onenyc.cityofnewyork.us/>

OneNYC is the website of the strategic plan, developed by New York City and named Plan for a Strong and Just City. This plan is followed to *PlaNYC*, realised in 2007, and take into account some events like the economic recession and the Hurricane Sandy that interested New York. In particular, the plan aims at developing the future New York in relation with four principles that are Growth, Equity, Sustainability and Resiliency and it was developed with cross-cutting interagency collaboration, public engagement and consultation with leading experts of different fields. *OneNYC* is coordinated by the Mayor's Office of Sustainability in collaboration with the Mayor's Office of Recovery and Resiliency for its implementation.

The plan is organized into four visions that are:

- Our Growing, Thriving City;
- Our Just and Equitable City;
- Our Sustainable City;
- Our Resilient City.

The website is articulated into seven sections: *The Plan*, *Visions*, *Progress*, *About #OneNYC*, *Downloads*, *Speak Up* and *Contact*. The OneNYC's homepage contains frames of all these sections. In particular, through the top banner users can download reports on the progress of the plan and access to other documents (among the OneNYC plan), suggest improvements to the plan (linking to the *Speak Up* webpage), share the website through social media and access to all the contents of OneNYC website.

In particular, through the first section, it is possible to visit a page with a generic description of the plan. In such description issues, actions and ways of their implementation are defined. For reaching this webpage, it is possible also to select *About #OneNYC* from the menu. The *Visions* section is composed of four pages, each of them illustrates a vision of the plan. In particular, each vision's webpage is structured in further parts. Indeed, for each vision, there are different goals and they are deeply illustrated by their definition, the description of challenges and opportunities and initiatives already implemented or to implement in order to reach the goal. In the *Progress* section, all the initiatives implemented for each vision are reported. In particular, it is possible to select them both for all the visions and for each vision. Moreover, users can click on the initiative frame and a description appears.

The *Download* section permits to download five documents. The first one, *1.5°C: Aligning New York City with the Paris Climate*, illustrates how OneNYC is aligned with the Paris Climate Agreement in order to not exceed 1.5 degrees Celsius in 2050 while the second one is the *OneNYC plan*. Furthermore, it is possible to consult two reports on signs of progress recorded in relation to the plan in 2016 and 2017. Finally, the last document, *New York City's Roadmap to 80 x 50*, contains the New York's roadmap to achieve the reduction of greenhouse gas emissions by at least 80% by 2050.

Through *Speak Up*, users can contact the Office of the Mayor and express through a contact form their ideas for the future of New York. Indeed, there is a space in this form where the user can suggest 'one way to create a better New York City'.

The *Contact* section links to a webpage of the official website of New York City where all the 338 NYC's official social media channels are reported. In particular, all the social media channels can be selected by topic (e.g. Business, Civic Services, etc.), by type (e.g. Facebook, Flickr, Instagram, etc.) and by Office and Department.



The Vietnam Climate Adaptation PartnerShip (VCAPS)'s website illustrates the results of the VCPA consortium that assisted Ho Chi Minh City in developing their Climate Adaptation Strategy to develop the city and harbour towards the sea. It is interesting to note that the City of Rotterdam is a member of the VCAPS and it is sharing its knowledge and experience through the Rotterdam Climate Initiative for helping Ho Chi Minh City.

The website is composed of ten sections that are: *Home, Project, Products, Events, Project meetings, Working groups, VCAPS Members, Office Ho Chi Minh City, Contact and Links.*

While the *Home* describes, in general terms, the VCAPS consortium and its results, the *Project* webpage specifies its goal, illustrating in the climate conditions of Ho Chi Minh City, which is the approach and the methodology adopted and which are the project phases. In *Products*, users can find and download two of the main results of VCAPS consortium, the *Atlas* and the *Adaptation strategy*, and the project-presentation.

In the *Events* section, all the media events and news on the project are reported while in the *Project meetings* all the working group meetings organized to develop the Atlas and the Adaptation Strategy and the Action plan are described. The *Working groups* section illustrates all the groups involved in the development of the project. In particular, considering their interests' topics, the working groups are divided into four types: the Institutional one, the Spatial Environment one, the Infrastructure one and the Socio-economic one. For each working group, the aim and their components are indicated.

In the *VCAPS Members* section, it is illustrated the partners of the consortium that are composed mainly of Dutch consultant societies and institutions that are described as their role in the consortium in specific webpages. In the *Office Ho Chi Minh City* page VCAPS references (address, phone, etc.) are reported, while through the *Contact* pages users can contact consortium for questions or for having additional information.

Finally, in the last section there are some links to webpages connected to the VCAPS project, including the partners one.

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IMAGE SOURCES

The images are from: <https://www.orbitz.com/blog/2015/05/worlds-futuristic-cities/>; <http://resilientnola.org/>; <http://www.vcaps.org/en/>; <https://onenyc.cityofnewyork.us/>.

METHODS, TOOLS AND BEST PRACTICES TO INCREASE THE CAPACITY OF
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REVIEW PAGES: BOOKS

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In this number

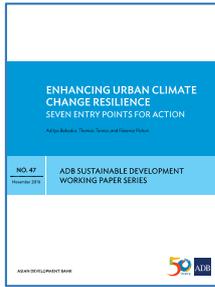
URBAN ADAPTATION STRATEGIES

The problems that cities face in the 21st century can no longer be dealt with the old solutions and tools. Urban Resilience is about facing and learning to adapt to hard challenges in ways that look towards the future. Most of the world's population now lives in towns and cities that are disproportionately located along coasts and rivers, and therefore faces substantial risks posed by hydrometeorological shocks and stresses. By 2050, the percentage of the world's population living in cities and towns will grow from 50% to 70%, urban areas in many cases retain high socioeconomic vulnerability, such as urban poverty, informal settlements, lack of municipal services, land tenure issues, etc., which are exacerbated by the exposure to climate-related shocks and stresses (United Nations, 2014). The urban paradox is evident in the hard and conflicting coexistence of dynamic growth and social exclusion in urban regions (Barresi & Pultrone, 2013). In the context of work on climate change, development, and natural hazards, resilience is generally understood to mean the ability of systems to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks.

In the U.S., seventy-five cities have undertaken adaptation planning in the past decade, and a second wave of cities is starting to plan. The first wave contained a diversity of cities - large and small cities, in each of nine climate regions in the U.S. Coastal cities driven by concerns about sea-level rise - most prominently along the eastern seaboard, Gulf Coast, and San Francisco Bay - have been especially active in adaptation planning.

Some important challenges related to broader urban governance; understanding the political economy context, navigating the power structures, and dealing with drivers or barriers to change; and engaging with the complexities of treating cities as systems. This challenges requires regular feedbacks between urban systems, the need for action at different scales of governance, and the critical bearing of areas outside the political boundaries of the city. It's about being able to redefine goals and develop skills that make the urban systems stronger. Resilience is all about dynamic transformation.

According to these themes, this section suggests three books and reports that help to better understand the issue of this number: Enhancing Urban Climate Change Resilience. Seven Entry Points for Action, Essential Capacities for Urban Climate Adaptation. A Framework for Cities and Redefining the city Athens Resilience Strategy for 2030.



Title: **Enhancing Urban Climate Change Resilience. Seven Entry Points for Action**

Author/editor: Aditya Bahadur, Thomas Tanner, and Florence Pichon

Publisher: Asian Development Bank

Publication year: 2016

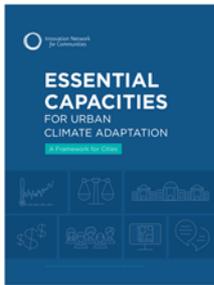
ISBN code: -

This report was realized by Asian Development Bank. This has given rise to a growing interest in the concept of Urban Climate Change Resilience (UCCR), which recognizes the complexity of rapid urbanization and uncertainties associated with climate change. Many development agencies are working carefully with their member countries and partners to develop these frameworks. This report highlights that while technology and infrastructure are integral to enhancing of resilience challenger, there are also some others aspects as those institutional, financial, spatial, and social. Looking across a vast body of literature on urban resilience and examples of practice reveals seven entry points for action that, in contextually specific combinations:

- Generating, sharing, and regularly updating data, information, and knowledge on how urban growth interacts or will interact with potential impacts of climate change is a first step for enhancing a city's ability to strengthen UCCR;
- Forward-looking urban planning tools, such as land use planning and development planning that allow adopting integrated, inclusive, and reflective approaches, provide a comprehensive and sustainable route to enhancing UCCR;
- Development processes associated with urban infrastructure and services, including water and sanitation, energy, transport and telecommunications, ecosystems, built environment, and health and social services, can strengthen UCCR by instituting new processes to ensure their organizational systems support resilience and recognize the interconnections among sectors;
- Individuals and institutions within city governments often know the city intimately, and building their capacity is critical for bringing UCCR to life;
- Community development processes that allow capturing diverse perspectives of communities, especially the perspectives of the most vulnerable, are essential for enhancing UCCR;
- There are huge needs for and potential gains from involving the private sector in enhancing UCCR;
- Catalyzing finance is key to the success of UCCR and includes finances available from different scales of governance: microfinance and local development funds; taxes, levies, and fines at the city level; earmarked and non-earmarked funding from provincial and national governments; and multilateral, bilateral, and philanthropic funding.

These seven points need to come together in contextually relevant combinations to strengthen the resilience strategies but usually treated as isolated sectors of activity. The report describes and outlines each entry point, the benefits, the range of practical actions to leverage the potential of this entry point for operationalizing pathways to Urban Climate Change Resilience, and the challenges of using each entry point. Some cities may have made more progress on some entry points than on others, revealing the need for customized solutions based on local factors. Over time, and with experience, the points proposed in this study may be refined and new ones added.

The report identifies a wide range of potential actions can be identified for private sector engagement in enhancing Urban Climate Change Resilience. Many sectors can be pinpointed for engagement, with three modes distinguished: Strengthen business continuity; Explore business opportunity; Consider business as a stakeholder; and Provide incentives for engaging the private sector.



Title: **Essential Capacities for Urban Climate Adaptation. A Framework for Cities**

Author/editor: Innovation Network for Communities

Publisher: -

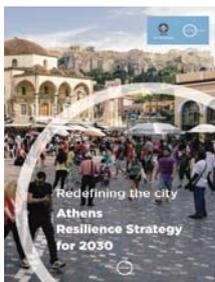
Publication year: 2017

ISBN code: -

This report developed by the Innovation Network for Communities (INC), a non-profit organization whose mission is to develop and spread scalable innovations that transform the performance of community systems. It presents a framework for urban climate adaptation that proposes seven essential capacities actions to implement climate adaptation of the cities, that should need to develop in the short and long term. This framework is based on a review of recent adaptation practice and is diverse from other frameworks because it focuses primarily on processes for adaptation planning and specific actions to take depending on which climate hazards a city. Listed below are the seven essential capacities for urban adaptation:

- Scientific Foundation. Capacity to assess and understand climate risks and vulnerabilities of city's built, natural, and economic assets and its populations, and use these analyses for ongoing adaptation planning;
- Communications. Capacity to communicate with and educate civic leaders and community members in ways that build and sustain a sense of urgency to adapt for climate changes;
- Equitable Adaptation. Capacity to make social and economic equity a central driver of the city's adaptation approach;
- Inclusive Community Engagement. Capacity to fully engage stakeholders and the public, especially vulnerable and underrepresented populations, in developing, implementing, and monitoring adaptation plans;
- Intergovernmental Alignment. Capacity to coordinate planning and action across governments at local, regional, state, tribal, and federal levels;
- Technical Design. Capacity to design, test, and implement adaptation actions that require engineering, legal, and other highly specialized details, as well as performance metrics for monitoring;
- Financial Resources. Capacity to repurpose, leverage, and obtain public and private funds to invest in infrastructure development and other adaptation actions.

The report identifies the new and enduring capabilities that cities need to build on the current knowledge level on the issue of urban adaptation. It focuses on climate adaptation preventive actions a city seeks to take in anticipation of climate hazards, which may also be called climate preparedness or climate resilience. The climate adaptation solutions, propose in this report, do not include the emergency response to the recent climate hazard events or the after-event process of recovery. It present cities with a useful framework, based on their practical experiences, for understanding how to grow and prosper in the face of increasing climate disruptions. In support of this information, the report provides best practices from cities that have been developing versions of the essential capacities, an overview of main adaptation planning frameworks, and links to useful tools and technical instruments. The project of the framework is based undertook four research activities. During the first phase, the research team interviewed thirty-five city practitioners, climate-adaptation experts, city-support and conservation NGOs, and funders of urban adaptation work. In the next phase, it is exanimated twenty-two U.S. cities' adaptation plans and six international cities' plans. The third phase is focused to literature review of guidance and tools for and recent studies and articles about urban adaptation planning in the U.S. cities. I the last phase of feedback. Selected city practitioners, researchers, and philanthropic funders provided feedback on our draft materials.



Title: Redefining the city Athens Resilience Strategy for 2030

Author/editor: City of Athens

Publisher: Rockefeller Foundation

Publication year: 2017

ISBN code: -

The City of Athens, a venerable yet intricate city of near 700.000 residents, part of a 3.75 million people metropolis, is for several years now facing a serious socio-economic crisis. Through concerted efforts, the city has managed to survive, to adapt and to transform into a more creative and collaborative city. The struggle is by no means over. This last year, calling on the insights and expertise of hundreds of stakeholders, from opinion leaders and academics to women migrants and the homeless, the city drafted its Resilience Strategy. This is a set of practicable actions which first of all strengthen and scales up what has made our city stronger: formal and informal networks and alliances. Athens Resilience Strategy offers a set of new integrated ways to prepare and protect our most vulnerable from future shocks and stresses that the city will face. Boosting the city's resilience means creating new as well as revitalizing existing open and green public spaces. This is vital for our densely built and populated city, threatened by both intense heat (climate change) and earthquakes. The city needs to become more forward thinking and proactive, turning its challenges into resources (vacant buildings, newly arrived refugee and migrant populations, energy and waste). Around such resources it will build capacity and start to develop economies that, together with tourism and the creative sector, will generate the city's future. Finally, the city will strengthen its government, through becoming more transparent and accountable, opening streams of communication, creating a digital agenda and innovation strategy. This work does not stand alone; it is supported by several documents that have been instigated by or produced in alliance with the city's resilience journey. The first one came out of the Athens Network Exchange in September 2016 under the title "Global Migration: Resilient Cities at the Forefront," and the second is a set of policy proposals "Advancing Equity for Athens' Resilience" created for the city by Transatlantic Policy Lab program as an offering and funded by the Bertelsmann Foundation. Lastly, the Athens Climate Change Adaptation and Mitigation Action plan was produced through a unique collaboration. These two documents together with the existing Athens strategic and operational plans, frame this resilience strategy. The resilience strategy is framed by four pillars, 65 actions and 53 supporting actions.

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 METHODS, TOOLS AND BEST PRACTICES TO INCREASE THE CAPACITY OF URBAN SYSTEMS TO ADAPT TO NATURAL AND MAN-MADE CHANGES 3(2017)

 REVIEW PAGES: URBAN PRACTICES

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In this number

**PLANNING FOR SHARED MOBILITY:
TWO CASE STUDIES IN THE U.S.**

In recent years, economic, social and environmental forces have quickly given rise to the “sharing economy”, a collective of entrepreneurs and consumers leveraging technology to share resources, save money, and generate capital (Shaheen, 2016). From goods and services to accommodation and mobility, disruptive business models based on the sharing economy paradigm are emerging, shaking up the concepts of ownership and consumption.

Shared mobility (i.e. the shared use of a vehicle, bicycle, or other mode) is among the fastest growing segments of the shared economy. It can be defined as an innovative transportation strategy that enables users to gain short-term access to transportation modes on an “as-needed” basis (Shaheen & Chan 2015). The term includes a variety of services such as carsharing, bikesharing, ridesharing, and ridesourcing. More broadly, the term also includes alternative transit services, such as paratransit, shuttles, and private transit services, called microtransit, which can supplement fixed-route bus and rail services (Cohen & Kietzmann, 2014).

Shared mobility may have a transformative impact on urban areas as it can enhance accessibility by providing new mobility options, while simultaneously reducing driving and personal vehicle ownership (Baptista et al., 2014; Staricco, 2013). It can complement “conventional” public transport by helping provide first/last mile connections, alleviating pressure on transit demand in core service areas, and filling the service gaps at off-peak hours (Feigon and Murphy, 2016). Furthermore, the introduction of shared mobility options in urban areas can reduced the need for off-street parking space that can be used by local governments to create additional public spaces for non-motorized transport modes (McKinsey, 2012).

Given the potential disruptive impacts of shared mobility on urban transportation and, more in general, on urban quality of life and liveability, several cities and regions around the world have started incorporating shared mobility considerations in their “traditional” mobility plans. Furthermore, in some cases, they have also developed dedicated planning instruments (i.e. shared mobility action plans).

Shared mobility is gaining momentum in the United States where around 20 percent of US population used a shared mobility service in 2015, predominantly in urban areas (Dhar et al., 2017). In this context, the Shared-Use Mobility Center, a public-interest organization, is working with cities and regions across the US to foster collaboration between shared mobility stakeholders, and develop shared mobility plans. This contribution presents two relevant case studies of US regions that have recently developed a shared mobility

action plan with the support of the SUMC: i) the County of Los Angeles and ii) the metropolitan area of Minneapolis–Saint Paul.



LOS ANGELES COUNTY

With over 10 million inhabitants, the county of Los Angeles is home to more than one-quarter of California residents and is one of the most ethnically diverse counties in the U.S.. Despite its reputation as a car-oriented region, the county has made huge investments in recent decades to improve its once-non-existent public transportation system. Furthermore - due to the positive influx of public and private sector investments, and the introduction of new environmental sustainability initiatives - the county has experienced a rapid growth in carsharing, bikesharing, ridesourcing, and other forms of shared mobility. Despite this progress, however, the county still faces pressing issues related to traffic congestion, air quality and equitable access to transportation.

To maximize the public benefits of shared mobility and establish a vision for the region, the SUMC has recently realized the Shared Mobility Action Plan for Los Angeles County (SUMC, 2016). The plan is based on a two-year-period of research and interviews with local stakeholders and provides a roadmap that the county can follow in the forthcoming years. At the heart of the plan there is a 2 percent vehicle reduction goal that would remove nearly 100,000 private cars from the county's roads within the next five years by dramatically scaling up shared mobility in concert with public transit. To realize this goal, the plan includes six complementary strategies:

- Expand the Role of Transit. Transit is considered the backbone that support other forms of shared mobility. To consolidate this position, the plan envisions an integrated Transit Access Pass (TAP) fare system, based on real-time information technologies, able to create a seamless integration across all transport modes.
- Drive Cultural Change to Support Transit & Shared Mobility. Changing the prevailing perception of vehicle ownership is considered a fundamental prerequisite for the development of successful shared mobility policies. To make this change happen, the plan includes marketing campaigns aimed at promoting the positive benefits of using shared mobility options such as cost savings, increased physical activity and reduced stress.
- Emphasize and Expand Carsharing in All Communities. Carsharing has tremendous potential to increase transportation access in Los Angeles County, especially for non-work trips. To maximize this potential, the plan envisions a coordinated mix of actions, including: i) the provision of significant dedicated street space for carsharing, ii) the reduction of minimum parking requirements for buildings that offer carsharing vehicles on site for their residents, and iii) the expansion of the carsharing network in disadvantaged communities.
- Leverage the Region's Bikesharing Momentum. The LA bikesharing system has rapidly growth over the past few years. To leverage this momentum, the plan foresees a coordinated approach to scaling the region's existing and planned systems. Relevant actions in this direction are: i) make bike sharing more accessible by disadvantaged social groups; ii) build protected bike lanes, and iii) make existent and planned bikesharing stations more visible and easy to access.
- Experiment in Ridesourcing, Microtransit & Vanpooling. Some of the most innovative recent developments in the shared mobility industry have taken place in ridesourcing, microtransit,

carpooling and vanpooling. To foster these innovations, the plan suggests dedicating pick-up and drop-off zones for shuttles and ridesourcing services. This will support shared mobility initiatives, especially those that address jobs access for the service sector that is currently poor served by “conventional” transit.

- Build Out Mobility Hubs Countywide. Mobility hubs are the physical place where multiple modes converge in one location. In this regard the plan consolidates previous initiatives aimed at creating new mobility hubs in the county (or improving the existing one) by establishing guidelines for hubs design.

The plan also features a summary of anticipated outcomes, calls for increased public and private investments to expand transit and shared mobility, and identifies specific funding sources that local leaders can pursue to achieve the established goals.



MINNEAPOLIS-SAINT PAUL METROPOLITAN AREA

Minneapolis–Saint Paul (commonly known as the Twin Cities) is a major metropolitan area in the US with a population of 3,684,92 inhabitants. The area has expanded outward significantly in the last decades as automobiles had made it possible for suburbs to grow greatly. In recent years, the region has made notable improvements to its public transit system, including launching bus rapid transit service and building a new light rail route that helped to “re-twin” the Twin Cities. It was also an early pioneer in bikesharing, carsharing and other forms of shared mobility. However, it has lost some ground lately if compared with peer cities such as Seattle and Denver that have been able to scale shared mobility and transit on a remarkable level. Furthermore, the region still faces pressing issues related to traffic congestion, affordability, livability and freedom of movement. With assistance from the McKnight Foundation, SUMC worked with leaders in the Minneapolis-St. Paul region to develop a Shared Mobility Action Plan for the Twin Cities (SUMC, 2017). At the core of the plan there is an ambitious goal of taking 20,000 cars off the road in the next five years (50,000 in the next 10 years). To realize this goal, the plan includes a portfolio of complementary strategies:

- Leverage the Metro Transit App to Establish a Data Clearinghouse. The Metro Transit app, and its planned integrations with various shared mobility platforms, has the potential to offer a myriad of benefits for the region such as real-time travel information, payment integration, targeted discounts and other incentives that encourage multimodality. To reach this aim, the plan supports the creation of an intermodal data platform. The data collected from this platform will be further used to better understand new travel patterns and identify new service opportunities for a variety of public and private transportation services.
- Stabilize and Grow Carsharing. The Twin Cities can take a number of actions to help strengthen the region’s remaining carsharing services and lay the groundwork for a more robust marketplace in future years. To this aim, the plan supports several coordinated actions such as: i) expand the carsharing network in disadvantaged communities; ii) reform local and state carshare taxes to be competitive with other regions where carsharing is successful; iii) create highly-visible carshare locations in conjunction with recent and planned street infrastructure projects.
- Pilot Flexible Transit that Focuses on Reverse Commute Challenges. Flexible transit services have the potential to address first/last mile issues, especially in suburban areas. Accordingly, the plan

supports the development of flexible services based on small and medium-sized vehicles and flexible routing that bring riders directly from a transit-heavy urban neighborhood to a diffuse but relatively high-density job center.

- Expand and Evolve Bikesharing The Twin Cities bikesharing system has rapidly growth over the past few years. However, the plan considers further expansions of the network, in coordination with the growth of the Metro Transit light rail network, in order to support multimodality.
- Optimize Parking and Street Space to Prioritize Shared Mobility. As long as parking is cheap and abundant, it will be difficult to encourage people to use sustainable modes. In order to encourage modal shift toward more sustainable transportation modes, the plan recommends reducing mandatory parking minimums for residential developments located near high-frequency transit lines. The plan also suggests using parking revenues to support shared mobility actions.
- Concentrate Efforts around Integrated Mobility Hubs. Mobility hubs are the physical place where multiple modes converge in one location, often clustered around a high-frequency public transit stop. In the Twin Cities, SUMC has observed several sites that possess high-quality transit service but missing essential components such as parking surface. In this regard, the plan identifies six potential locations that could serve as mobility hubs and defines guidelines to redevelop these locations.

The plan also calls for increased public and private investments to expand transit and shared mobility, identifies local, state and federal funds identifies funds that local leaders can pursue to achieve the established goals and provides suggestion for involving private-sector and community stakeholders.

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METHODS, TOOLS AND BEST PRACTICES TO INCREASE THE CAPACITY OF URBAN SYSTEMS TO ADAPT TO NATURAL AND MAN-MADE CHANGES 3(2017)

REVIEW PAGES: NEWS AND EVENTS

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In this number

SAFE-TO-FAIL ADAPTIVE URBAN DESIGN:
NETWORKING PRACTICES TO MINIMIZE THE
CONSEQUENCES OF FAILURES

Urban resilience is a concept that only recently has been actively undertaken by cities around the world. However, while the concept of resilience is intellectually intriguing, it remains largely unpracticed in contemporary urban planning and design, because its feasibility would need a mental switch in a system that is still predominantly deterministic. Becoming more resilient means that a city strives to enhance its ability to bounce back and grow even stronger and better in the face of the chronic stresses and acute shocks; it would mean to overtake a “fail-safe” mentality based on the promise of science and technology to be able to define a perfect urban model that could persist for generations in favor of the “safe-to-fail” paradigm based on the creation of adaptation scenarios that would allow to fail but control or minimize the consequences of the failure. (Kim et al., 2017). In this way, “resilience capacity is well-suited to an adaptive approach to planning and design, in which innovation is pursued through responsible experimentation, developing a culture of monitoring, and learning from modest failures” (Ahern, 2011). As such, city resilience is a continuous challenge for individuals, communities, institutions, businesses and infrastructure systems to address current trends and future transitions, trying to take advantages from the ongoing experiences. Furthermore, the monitoring of this citizens’ dialogue and integration of experiential and professional knowledge appears currently more feasible thanks to the potentiality of Social Media Geographic Information as source of knowledge for the planning practices (Massa & Campagna, 2014).

A fertile ground of application of this theory could be the URBACT program that, for about 15 years, has been the European Territorial Cooperation program aiming at fostering sustainable integrated urban development in cities across Europe. It is an instrument of the Cohesion Policy, co-financed by the European Regional Development Fund, the 28 Member States, Norway and Switzerland, whose mission is to “enable cities to work together and develop integrated solutions to common urban challenges, by networking, learning from one another’s experiences, drawing lessons and identifying good practices to improve urban policies”. Among the almost one hundred cities networks created within this program, Resilient Europe network, involving 11 European cities (Rotterdam, Glasgow, Antwerp, Bristol, Potenza, Ioannina, Thessaloniki, Burgas, Katowice, Malmö, Vejle), uses the innovative governance approach of Transition Management, a process-oriented methodology that enables social learning through iterations between collective vision development and experimenting. This form of co-creation process will be applied in every

city and across the cities for specifying “what city resilience means” for each city, to enable a translation and identification of resilience aspirations of stakeholders in a participatory vision development way and to formulate an Integrated Action Plan to pave the ground for achieving city resilience.

In this perspective were selected some international conferences taking place in the coming months, that will contribute to the networking of experience, knowledge and best practices on the urban resilience topic.



URBAN FUTURE _ GLOBAL CONFERENCE

Where: Wien, Austria

When: 28th February – 2nd March 2018

www.urban-future.org

As we said previously Transition management approach requires a collective vision able to drive the above mentioned mental switch, starting from those concrete experiences that currently seek to find innovative solutions of governance in cities. The URBAN FUTURE global conference is the World’s largest meeting point of “City Changers”: mayors, architects, mobility experts, city planners, scientists, sustainability managers, representatives from Start-Ups, environmentalists, innovation experts and many more will meet to share experiences and to implement their ideas for sustainable, livable cities. “Citizen engagement: how to make sure people don’t feel left behind”, “Climate protection and adaptation for city leaders”, “Cities going low-carbon: from freaks to mainstream strategy”, “Retrofitting and energy efficiency: how to pimp-up existing building stock”, “The invisible Smart City: the impact of social investment”, are some interesting titles of the almost 30 sessions of the conference divided in four main themes: living and city planning, communication & leadership, resources and mobility.



CITIES AND CLIMATE CHANGE SCIENCE CONFERENCE

Where: Edmonton, Canada

When: 5-7 March 2018

www.citiesipcc.org

The important role of the over described “City Changer” to address challenges of sustainability and resilience, may not be enough without the effort of the scientific community. In addition to adaptive design solutions, “research is needed to learn what makes knowledge about nature society interactions useful within both science and society to build resilience capacity and to guide society on a sustainable trajectory” (Ahern, 2011). It will demand a higher level of transdisciplinary collaboration in both research and practice than presently exists, especially regarding the pressing request for answers on the topic of climate change. On these premises takes place the Cities and Climate Change Science Conference that aims to inspire the next frontier of research focused on the science of cities and climate change. In fact, the primary goal of the conference is to assess the state of academic and practice-based knowledge related to cities and climate change, and to establish a global research agenda based on the joint identification of key gaps by the academic, practitioner and urban policy-making communities. The main themes of the conference are the followings:

- Cities & climate change (Imperatives for action);
- urban emissions, impacts and vulnerabilities (Science and practice of cities);
- solutions for the transition to low carbon and climate resilient cities (Science and practice for cities);
- enabling transformative climate action in cities (advancing science and advancing cities).



GREEN CITIES 2018

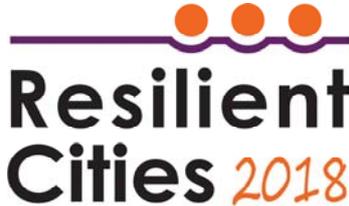
Where: Melbourne, Australia

When: 13-15 March 2018

www.greencities.org.au

The third important element to implement this Copernican revolution in the way of rethinking cities is industry. Green Cities, Australia's premier sustainability conference for the built environment organized by industry sector, could be an interesting opportunity to walk through this topic. The main questions of the conference are the followings:

- How can we spark sustainable change throughout industry and government to plan cities and communities needs to be reinvigorated to become resilient ?
- How will health and wellbeing impact the way we build our cities ?
- What can we learn about communities through reconciliation ?
- How will we win the race to renewables ?



RESILIENT CITIES 2018 THE 9TH GLOBAL FORUM ON URBAN RESILIENCE AND ADAPTATION

Where: Bonn, Germany

When: 26-28 April 2018

www.resilientcities2018.iclei.org

In September 2015 the Heads of State and Government and High Representatives, meeting at the United Nations Headquarters in New York, defined an agenda based on new global Sustainable Development Goals: the 2030 Agenda for Sustainable Development. It is a set of 17 universal and transformative goals and 169 targets balanced on the three dimensions of sustainable development: the economic, social and environmental; it represents a plan of action for people, planet and prosperity that seeks to strengthen universal peace in larger freedom.

After 2 years, ICLEI - Local Governments for Sustainability - intends to review the state of urban resilience and local implementation of the Agenda, by organizing the 9th Global Forum on Urban Resilience and Adaptation. Resilient Cities 2018 will focus on:

- Social cohesion: Building resilient urban societies;
- Resilient and resource efficient cities: transition toward a circular economy; and
- Reinventing business as usual: Private sector engagement in resilience building.

Congress themes also include current and pressing issues such as ecosystem-based adaptation, managing climate-related health risks, data and ICT resilience, and evidence-based adaptation planning.



ADAPTATION FUTURES 2018

Where: Cape Town, South Africa

When: 18-21 June 2018

<http://adaptationfutures2018.capetown/>

Thousands of cities in the developing world are facing rising pressures on institutions and infrastructure due to population growth and urbanization; developing country cities are now beginning to experience the added impacts of climate change. For those countries climate change is likely to increase already high levels of disaster risk. On these premises takes place the Adaptation Futures 2018 conference that will take advantage of its location in Africa to stimulate critical Southern perspectives on adaptation to inform regional and global policy, practice and research, and to increase the focus on the links between adaptation and sustainable development. The conference focus will be on how to move from problem diagnosis to successful implementation. It intends to investigate on community learning methods about making adaptation work, at different spatial, institutional and time scales, in different geographies, and in different political and economic settings. AF2018 is especially interested in exploring the following themes:

- Adaptation and development;
- South-South and South-North knowledge and learning;
- Adaptation and 21st century challenges;
- Collaboration, knowledge co-production and research into use;
- Financing of adaptation and climate resilient development;
- Learning from doing.

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IMAGE SOURCES

The image shown in the first page is taken from:

<https://berkonomics.com/wp-content/uploads/2015/07/man-falling-onto-safety-net-300x300.jpg>

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