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English version

City Resilience Development - Guide to combine disaster risk management and climate change adaptation - Historic areas

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European foreword

This CEN Workshop Agreement (CWA 17727:2022) has been developed in accordance with the CEN-CENELEC Guide 29 “CEN/CENELEC Workshop Agreements – A rapid prototyping to standardisation” and with the relevant provisions of CEN/CENELEC Internal Regulations – Part 2. It was approved by a Workshop of representatives of interested parties on 2022-04-28, the constitution of which was supported by CEN following the public call for participation made on 2021-04-22. However, this CEN Workshop Agreement does not necessarily include all relevant stakeholders.

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Introduction

Resilience of historic areas

While negative impacts of climate-related and other hazards on urban areas are widely discussed in contemporary literature and research, their impacts on cities and communities, which are inextricably linked to historic areas, have not yet been studied extensively. Combined work on disaster risk reduction and climate change adaptation in and for historic areas, with their unique structure, calls for advanced technologies, models, methods, processes and tools. To make a historic area resilient, the local community, municipal staff, practitioners and decision-makers need to address both the chronic stresses posed by climate change as well as the shocks and existing risks posed by other disasters. However, to date, typical management frameworks for disaster risk management (DRM) and climate change adaptation (CCA) still consider shocks and chronic stresses in isolation. Furthermore, the term “city resilience” or additionally, “community resilience” can mean many different things to different actors, depending on the context in which it is applied.

The ARCH DRM/CCA Framework

The aim of the CEN/WS ARCH, a temporary working group, was to further develop the ARCH Project’s DRM/CCA Framework, together with a broader community of experts, including municipal staff. The framework was created to help, for example, practitioners, decision-makers, heritage managers, public administrators, and other actors in the field of DRM, CCA, and historic area management to:

- acknowledge the need for socially just resilience building activities,
- understand which steps are necessary to develop a Resilience Action Plan that combines DRM and CCA processes and that takes into account the needs and opportunities of historic areas when building resilience,
- provide guidance on how to operationalize the different steps of the DRM/CCA Framework,
- provide guidance on which stakeholders to involve in each step of the DRM/CCA Framework,
- provide a conceptual structure for the use of different supporting tools and materials within the steps of the DRM/CCA Framework.

The content in this document is based on the DRM/CCA Framework of the ARCH project, which centres on historic areas. Nonetheless, the DRM/CCA Framework can also be applied to other use cases in other parts of a given city, not necessarily only on historic areas.

The framework is based on the DRM cycle proposed by Jigyasu, King, and Wijesuriya in the UNESCO manual on managing disaster risk for world heritage [1] as a starting basis and extends it with the climate change adaptation planning cycle of Climate ADAPT’s Urban Adaptation Support Tool [2]. This combined planning cycle is then further extended with considerations from topic-specific frameworks relevant to historic areas, like the Culture in City Reconstruction and Recovery Framework [3], the SMR European Resilience Management Guideline [4], and the RESIN Conceptual Framework [5].

CWA 17300 series on “City Resilience Development”

This document complements the already existing standards series CWA 17300 on “City Resilience Development”. This supports the uptake and consideration of the standards content in relation to enhance resilience in cities and communities. The standards series consists of the following documents:

- CWA 17300 *City Resilience Development – Operational Framework*
- CWA 17301 *City Resilience Development – Maturity Model*

- CWA 17302 *City Resilience Development – Information Portal*

The CWA on Operational Guidance is the overarching document that refers to the CWA 17301 *City Resilience Development – Maturity Model*, the CWA 17302 *City Resilience Development – Information Portal*, as well as to other supporting tools.

Technical Committees

The cross-sectoral topic of disaster risk management and climate change adaptation of historic areas is discussed in the following Technical Committee:

- CEN/TC 346 *Conservation of cultural heritage*,
- ISO/TC 292 *Societal and citizen security*,
- ISO/TC 268 *Sustainable cities and communities*,
- ISO/TC 207/SC 7 *Greenhouse gas and climate change management and related activities*.

Wherever possible, the document refers to existing standards from the above mentioned Technical Committees.

1 Scope

The document specifies a resilience-building framework for historic areas within cities and communities that defines and combines disaster risk management (DRM) and climate change adaptation (CCA) activities in an integrated approach. The framework is applicable for historic areas that face natural and climate change-induced hazards. The framework includes a:

- characterisation of historic areas and their exposure to natural and climate change-induced hazards,
- set of requirements and recommendations on how historic areas can become more resilient,
- step-by-step process to manage disasters, and to perform and monitor resilience-building activities.

This document is intended to be used by decision makers and technical staff at the city/community and historic area levels, as well as by councillors working on risk and vulnerability assessment, climate change adaptation and resilience enhancement. Other stakeholders who may wish to use the document include disaster risk managers, heritage managers, public administrators, sustainability and resilience officers, critical infrastructure managers, service providers, emergency service providers, civil society associations, non-governmental organisations, academic and research institutions, as well as consultancies.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardisation at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

chronic stress

underlying human and natural pressure or tension that causes persistent negative impacts relating to environmental degradation, social inequality and economic instability

[SOURCE: ISO 37123:2019, definition 3.9, modified — “chronic” was added, “in a city” and the examples were deleted]

3.2

city

human settlement formed by a central area, neighbourhoods and suburbs reciprocally connected but not necessarily coincident with administrative boundaries, and inclusive of all the urban stakeholders that play key roles in its functioning

[SOURCE: CWA 17300:2018, definition 3.5]

3.3

climate change

change in climate that persists for an extended period, typically decades or longer