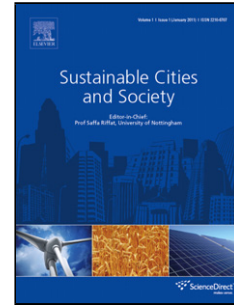


Accepted Manuscript

Title: Climatic zoning for building construction in a temperate climate of Chile

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PII: S2210-6707(17)31224-6
DOI: <https://doi.org/10.1016/j.scs.2018.04.020>
Reference: SCS 1060



To appear in:

Received date: 7-9-2017
Revised date: 7-3-2018
Accepted date: 14-4-2018

Please cite this article as: Verichev, Konstantin., & Carpio, Manuel., Climatic zoning for building construction in a temperate climate of Chile. *Sustainable Cities and Society* <https://doi.org/10.1016/j.scs.2018.04.020>

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Climatic zoning for building construction in a temperate climate of Chile

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Highlights

- In this study presents updated boundaries of thermal zones for construction in the southern regions of Chile.
- Climatic zoning was performed using two methods (Degree-days method and Climate severity index method).
- In this research used complex data obtained from measurements at meteorological stations during the last decade.
- The effects of urban heat islands on climatic zoning for construction was shown.

Abstract

In Chile, the official document that defines energy efficiency for building construction is the General Ordinance of Urban Planning and Construction which defines seven thermal zones based on the annual average values of heating degree-days (base temperature of 15 °C) calculated in 1999. In the context of climate change, the obsolete meteorological data must be updated. In the present study, we assessed three regions in the south of Chile (La Araucanía, Los Ríos, and Los Lagos); updated annual average values of the heating degree-days using data from the meteorological observations for the past decade and updated the

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