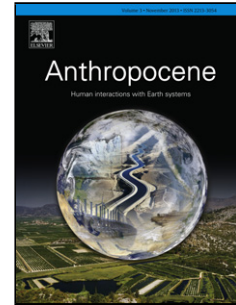


Accepted Manuscript

Title: A spatial model for evaluating the vulnerability of water management in Mexico City, Sao Paulo and Buenos Aires considering climate change

Author: Luis Zambrano Rodrigo Pacheco-Muñoz Tania Fernández



PII: S2213-3054(16)30133-3
DOI: <http://dx.doi.org/doi:10.1016/j.ancene.2016.12.001>
Reference: ANCENE 127

To appear in:

Received date: 27-1-2016
Revised date: 16-11-2016
Accepted date: 14-12-2016

Please cite this article as: Zambrano, Luis, Pacheco-Muñoz, Rodrigo, Fernández, Tania, A spatial model for evaluating the vulnerability of water management in Mexico City, Sao Paulo and Buenos Aires considering climate change. *Anthropocene* <http://dx.doi.org/10.1016/j.ancene.2016.12.001>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

A spatial model for evaluating the vulnerability of water management in Mexico City, Sao Paulo and Buenos Aires considering climate change.

Luis ZAMBRANO^{1,1}, Rodrigo PACHECO-MUÑOZ^{1,2}, Tania FERNÁNDEZ^{1,3}.

1. Departamento de Zoología, Instituto de Biología, Universidad Nacional Autónoma de México, Ciudad Universitaria, México DF 04200, México.

1. zambrano@ib.unam.mx
2. rodpachecom@gmail.com
3. tania.fdzv@gmail.com

Highlights

- Water management in cities commonly focuses on ensuring water supply service to the population and on flood risk management; nevertheless, cities must consider land attributes at watershed scales for effective water management.
- This paper presents a spatial model that evaluates land attributes at watershed scales that is applicable for infiltration and flood risk water management.
- The model generates qualitative data without providing water balances, and it can give information to stakeholders at watershed scale.
- Model results suggest that climate change will change watershed process; but land use change will reduce infiltration and increase flood risks in the three cities.
- Natural areas are important for infiltration process and flood risk reduction. Thus, the protection of these areas is crucial on watershed resilience.

Download English Version:

<https://daneshyari.com/en/article/5755086>

Download Persian Version:

<https://daneshyari.com/article/5755086>

[Daneshyari.com](https://daneshyari.com)