

JOINT EVENT

5<sup>th</sup> World Conference on **Climate Change**

&

16<sup>th</sup> Annual Meeting on

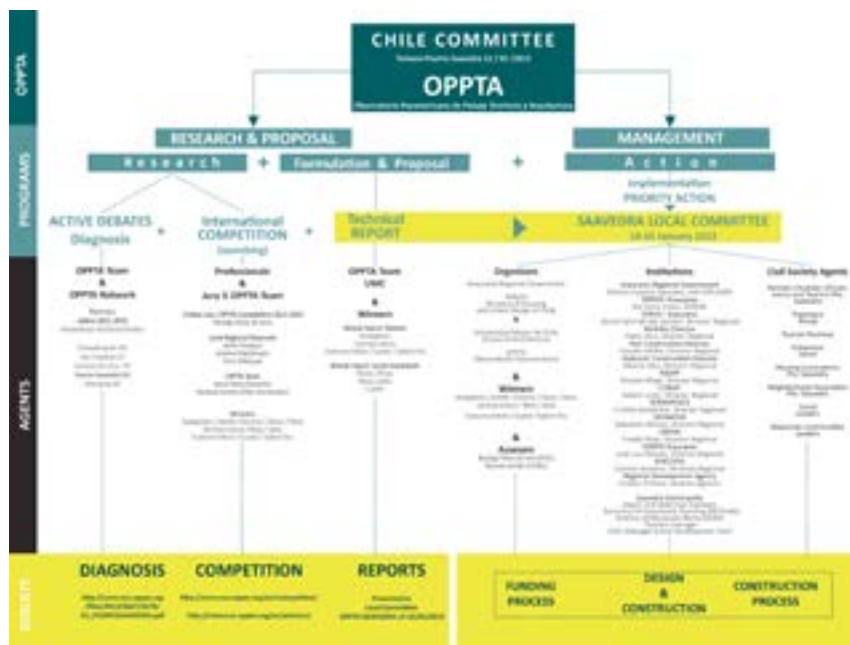
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# Environmental Toxicology and Biological Systems

## Urban and architectural approaches for an effective climate change adaptation in Latin America

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Since 2011, Pan-American Observatory of Landscape, Territory and Architecture (OPPTA) works simultaneously on risk cause by the impacts of climate change and natural hazards in five Latin American cities. The number of unexpected and unprecedented effects of climate change and natural disasters affecting the Latin-American sub-continent in a short period of time motivated OPPTA to develop a concurrent methodology of research proposals and action to approach infrastructural, architectural, landscape and social actions, improving living condition, minimizing vulnerability and promoting the resilience of cities and communities. The proposed methodology is based on the development of five programs: active debates, competition, priority action, WikiPan and publications, which deal respectively with: research, design and implementation of projects, and the creation of an open database and publications to disseminate the results. This methodology settles mechanisms and processes to work through a multidisciplinary and transnational network along Europe and America, involving researchers, professionals and institutions, of both public and private sector. The aim of this research includes the study of risk and its associated problems to identify patterns, concurrencies and differences at the technical, infrastructural and political (identification of public policies and governance in Latin America) level. Among the 12 initial candidates, five sites have been selected: Chimalhuacán (Mexico), Lima (Peru), Puerto Saavedra (Chile), San Cristobal (Colombia) and Petropolis (Brazil). The particular context and specific problems associated to each site stimulate a simultaneous search for common solutions to ensure an effective adaptation. As a result, the technical proposals were implemented throughout the Priority Action Programme, which incorporates sustainable and resilient development plans and project; design of public infrastructures to minimize vulnerability; networks of resilience green-public areas; organization of educational programs and citizen participation with regards to urban agriculture and horticulture, waste and water management; etcetera, to ensure mitigation and endangered environment preservation.



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## **Recent Publications**

1. Pérez Maldonado (2017) Strategic Urban Plan for the Araucania Region (Chile): The environmental awareness of the community. PLEA Conference, Edinburgh, Scotland.
2. Pérez Varela (2016) OPPTA methodology for intervention in areas affected by risk in Latin America. Procedia Engineering 161(V).
3. Zazo Aláez and Pérez Varela (2016) ARA project: municipality strategic plan for the implementation of climate change adaptation in Chimalhuacán, México. 'Cambio climático y ciudades de América Latina', University of Externado, Colombia, 978-958-710.
4. Pérez (2015) Toward an infrastructural architecture and urban design. Exploration in Big Scale Architecture Project. Urbano, n. 32, 0717-3997/O718-3607.
5. Pérez, Varela (2014). Emergency Landscape in five study cases in Latin America. IFLA, 978-987-96680-2-3

## **Biography**

Irene Perez Lopez (PhD in Architecture ETSAM-UPM, President of OPPTA). She is co-founder of the Pan-American Observatory of Landscape, Territory and Architecture OPPTA, a non-profit international organization focused on the protection, restoration, recovery and reconstruction of urban and rural environments with a special focus on sustainable urban design and planning, risk management (Climate Change and man-made pressure on environment), and the implementation of Resilience cities and societies. She worked as director of Territorio Mayor (2013-14), the Centre for Urban Studies at the Mayor University in Chile, on the development of consultancies and design-led research regarding sustainable urban city planning, landscape and territory. Previously, she founded her own office focused on the development of architecture, urban design and landscape architecture projects. In addition, Irene has been Associate Professor and Assistant Professor at the BioBio University, Mayor University, Salamanca University and the School of Architecture at the Polytechnic University of Madrid ETSAM-UPM.

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