

## **Integration of the resilience concept into land use planning in Chile: emerging lessons from the disaster reconstruction practice in the last decade**

William Siembieda<sup>1</sup>, Roberto Moris<sup>2</sup>, Andrea Pino

*1California Polytechnic State University-San Luis Obispo*

*wsiembie@calpoly.edu*

*2Pontificia Universidad Catolica de Chile*

*rmoris@uc.cl*

A prime directive of land use planning (LUP) is to provide for the safe organization and use of space in urban areas. LUP. To this end regulations regarding allowed uses, intensity of use, location of use, have been applied to land in urban areas. By and large however, these regulations have been focused on how the built environment gets expressed in space. Few of the regulations have attempted to promote desired social or economic behaviors expressed as the actual (real) city versus the regulated city. In the last ten years the concept of resilience as put forward by a growing segment of the urban management organizations to expand physical safety concerns and include how land planning contributes to the well being of localized social and economic sub-parts of the urban system.

Over the past decade the country Chile has experienced many natural hazard disaster events including volcano eruptions that cut towns in half, earthquakes destroyed over 200,000 homes, massive wildfires in ravines, tsunami killings hundreds of people and disrupting commerce, and floods and mudslides causing massive disruptions to city functions and settlement systems. Each of these events has resulted in incremental improvements in the understanding of risk, and also for adjustment in the land planning system. The main question explored in this paper is: based on its experience with natural disaster events in what ways has Chile changed its land planning system to make cities more resilient and safe?

The question will be answered through examining the local and state response to four events: the 2010 Earthquake and Tsunami, the 2014 Valparaiso ravine fires (in

working class and poor areas), the 2015 Atacama floods and landslides and the 2008 Chaiten Volcano Eruption. The land use planning system in place before and after these events is contrasted and analyzed from the social economic the political economy perspective, as well as the regulatory adjusted made or attempted. The Chilean experiment with dual system of regional recovery planning after the 2010 Earthquake and Tsunami will be examined in terms of adoption by local governments and progress in constructing resilience communities. Also examined is the tension between state (top-down) approaches and community (bottoms-up) approaches. Data from government published reports, changes in national laws (Basic Law of Territorial Order) and field studies forms the empirical basis for the analysis.

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